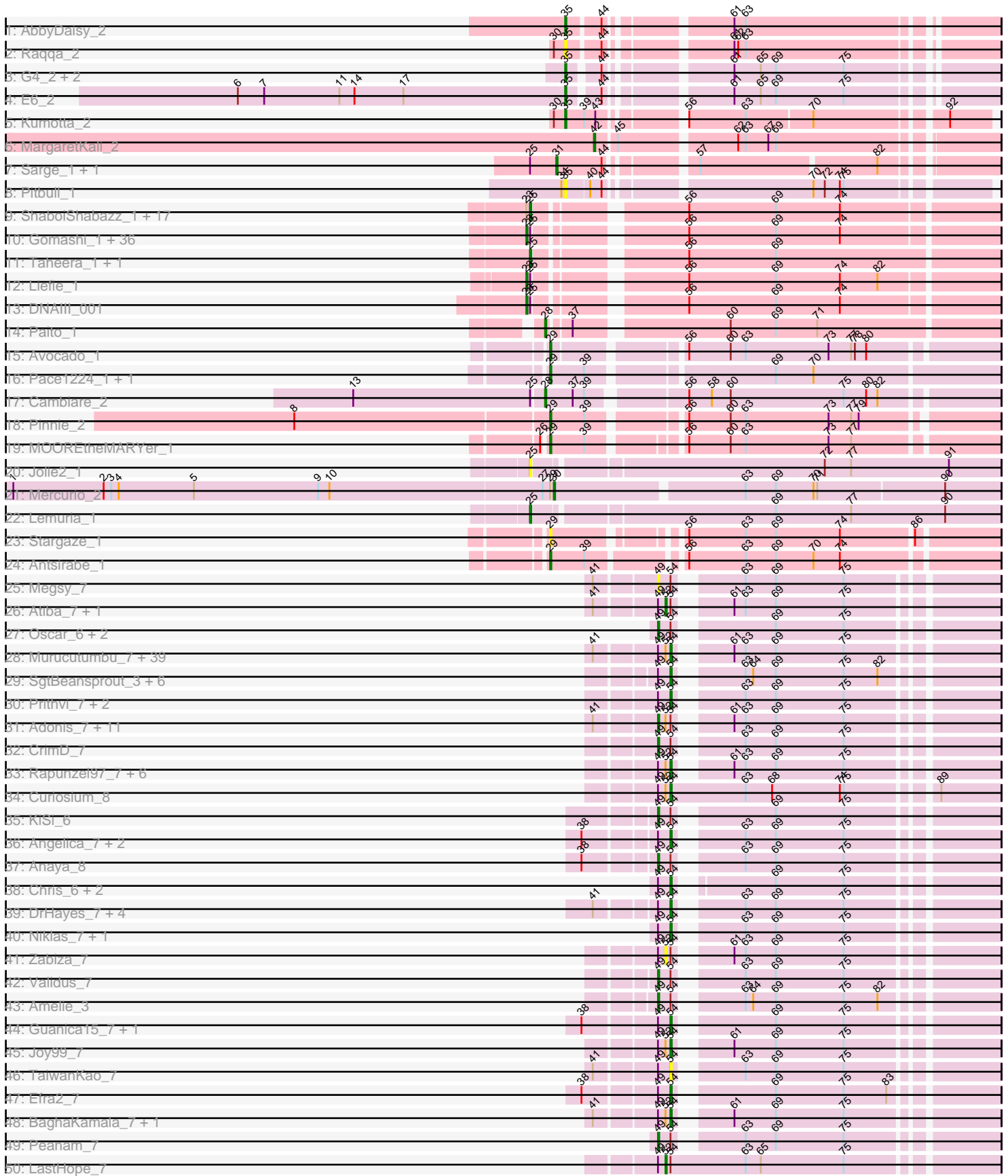
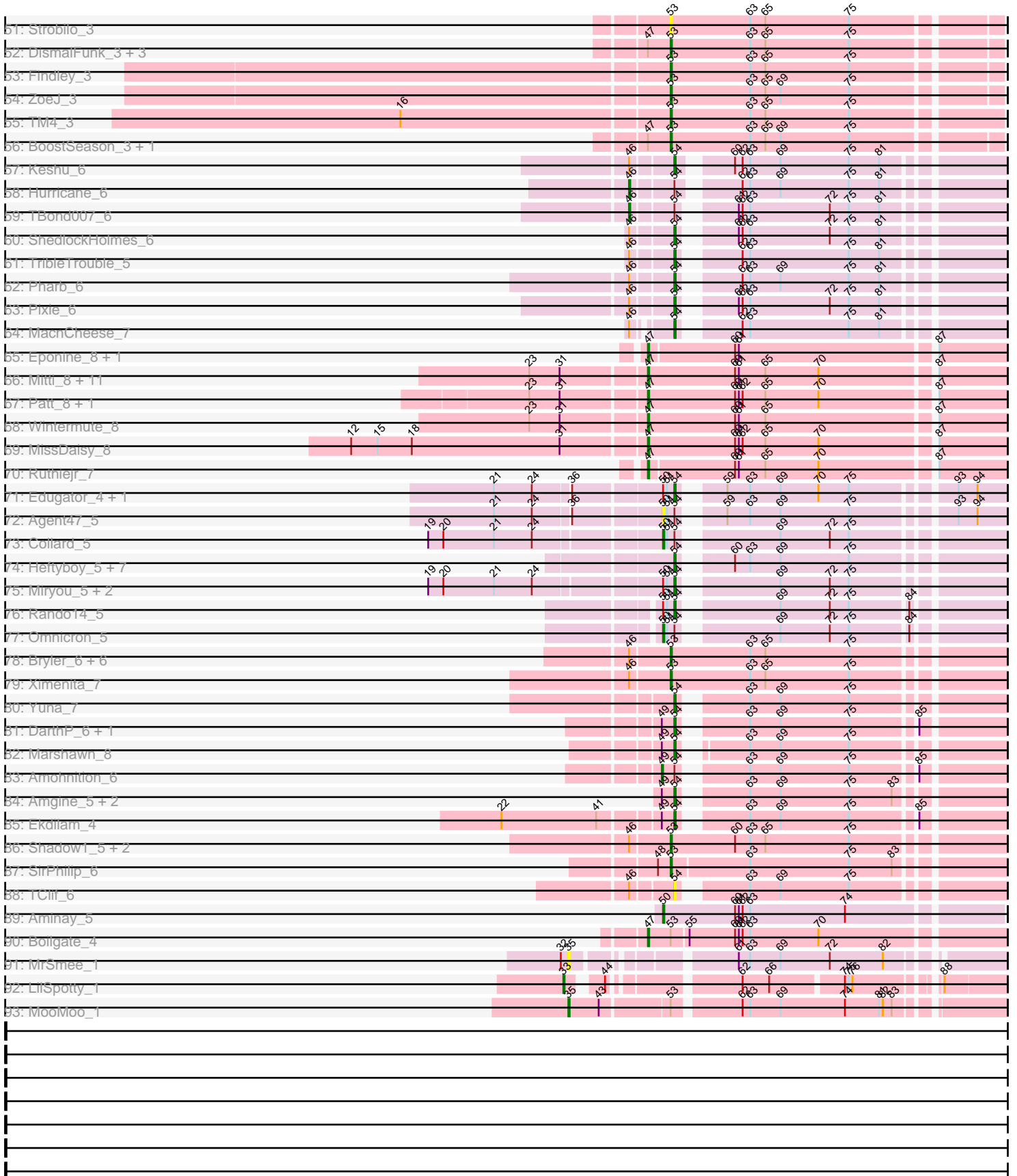


Pham 161537



Pham 161537



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 161537 Report

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

Pham number 161537 has 267 members, 17 are drafts.

Phages represented in each track:

- Track 1 : AbbyDaisy\_2
- Track 2 : Raqqa\_2
- Track 3 : G4\_2, Doucette\_2, B22\_2
- Track 4 : E6\_2
- Track 5 : Kumotta\_2
- Track 6 : MargaretKali\_2
- Track 7 : Sarge\_1, BrayBeast\_1
- Track 8 : Pitbull\_1
- Track 9 : ShaboiShabazz\_1, Plagueis\_1, Peeb\_1, Hotshotbaby7\_1, Cherrybomb426\_1, Sizemore\_1, Sweets\_1, Darionha\_1, Schiebel\_1, GoldenAsh\_1, Phish\_1, ZoMa\_1, Grizzly\_1, Mowgli\_1, Olga\_1, PinkYoshi\_1, Kasen3\_1, DMoney\_1
- Track 10 : Gomashi\_1, Aroostook\_1, CassieYates\_1, Crespo\_1, Jane\_1, Barkley26\_1, Angel\_1, Halo\_1, LouisV14\_1, JorRay\_1, BruceB\_1, ECartman\_1, Hope\_1, Camri\_1, Phreak\_1, Jolene\_1, BQuat\_1, Frosty24\_1, Avrafan\_1, TomBrady\_1, Gideon\_1, BPs\_1, CLÉD96\_1, Jonghyun\_1, Marmie\_1, Rabbs\_1, OctaviousRex\_1, Annihilator\_1, Renaissance\_1, Kareem\_1, Remy19\_1, Cedasite\_1, Periodt\_1, Zombie\_1, Chance64\_1, Sneeze\_1, Coleslaw\_1
- Track 11 : Taheera\_1, Terror\_1
- Track 12 : Liefie\_1
- Track 13 : DNAlII\_001
- Track 14 : Paito\_1
- Track 15 : Avocado\_1
- Track 16 : Pace1224\_1, FlagStaff\_1
- Track 17 : Cambiare\_2
- Track 18 : Pinnie\_2
- Track 19 : MOOREtheMARYer\_1
- Track 20 : Jolie2\_1
- Track 21 : Mercurio\_2
- Track 22 : Lemuria\_1
- Track 23 : Stargaze\_1
- Track 24 : Antsirabe\_1
- Track 25 : Megsy\_7
- Track 26 : Atiba\_7, Ageofdapage\_7
- Track 27 : Oscar\_6, Scarlett\_6, LeMond\_6
- Track 28 : Murucutumbu\_7, TruffulaTree\_7, BarrelRoll\_7, JAWS\_7, Hyperbowlee\_7, Devera\_7, Durfee\_7, Beezoo\_7, Boiiii\_7, Blizzard\_7, Rosmarinus\_7, Homura\_7, ShiaSurprise\_7, CheetoDust\_7, Pokerus\_6, Emerson\_7, Apocalypse\_7, Tiri\_7,

BGIlluviae\_7, Topper\_7, Geraldini\_7, LaterM\_7, Capricorn\_7, Mynx\_7, Padpat\_7, Veliki\_7, Piatt\_7, Illumine\_7, Lunahalos\_7, Dalmuri\_7, Belladonna\_7, YoureAdopted\_6, Asayake\_7, BEEST\_7, Jeckyll\_7, Dole\_7, Tachez\_7, Ganymede\_7, Inky\_7, Spock\_7

- Track 29 : SgtBeansprout\_3, Enkosi\_3, Mdavu\_3, Nutello\_3, Nikao\_3, LilPharaoh\_3, Binglebops\_3
- Track 30 : Prithvi\_7, LindNT\_7, TreyKay\_7
- Track 31 : Adonis\_7, CREW\_7, QuincyRose\_6, Jarvi\_7, Llorens\_7, Stinson\_7, Twitch\_7, AlishaPH\_7, Peel\_7, Padfoot\_7, Zavala\_7, CaseJules\_7
- Track 32 : CrimD\_7
- Track 33 : Rapunzel97\_7, Adephagia\_7, Slimphazie\_7, ActinUp\_7, HedwigODU\_7, Jayhawk\_7, Ramen\_7
- Track 34 : Curiosium\_8
- Track 35 : KiSi\_6
- Track 36 : Angelica\_7, Sulley\_7, Deby\_7
- Track 37 : Anaya\_8
- Track 38 : Chris\_6, Nibb\_6, MarkPhew\_6
- Track 39 : DrHayes\_7, Urkel\_7, Bella96\_7, TiniBug\_7, SamuelLPlaqson\_7
- Track 40 : Niklas\_7, Shaobing\_7
- Track 41 : Zabiza\_7
- Track 42 : Validus\_7
- Track 43 : Amelie\_3
- Track 44 : Guanica15\_7, Yunkel11\_7
- Track 45 : Joy99\_7
- Track 46 : TaiwanKao\_7
- Track 47 : Efra2\_7
- Track 48 : BaghaKamala\_7, MeaningOfLife\_7
- Track 49 : Peanam\_7
- Track 50 : LastHope\_7
- Track 51 : Strobilo\_3
- Track 52 : DismalFunk\_3, Milly\_3, DismalStressor\_3, Marcoliusprime\_3
- Track 53 : Findley\_3
- Track 54 : ZoeJ\_3
- Track 55 : TM4\_3
- Track 56 : BoostSeason\_3, Mufasa\_3
- Track 57 : Keshu\_6
- Track 58 : Hurricane\_6
- Track 59 : TBond007\_6
- Track 60 : ShedlockHolmes\_6
- Track 61 : TribbleTrouble\_5
- Track 62 : Pharb\_6
- Track 63 : Pixie\_6
- Track 64 : MacnCheese\_7
- Track 65 : Eponine\_8, Juliette\_8
- Track 66 : Mitti\_8, Malthus\_8, Chancellor\_8, Cheetobro\_8, Taquito\_6, Y2\_08, OmniCritical\_8, Fionnbharth\_8, Slarp\_8, JF1\_8, SamScheppers\_6, Y10\_08
- Track 67 : Patt\_8, Reptar3000\_8
- Track 68 : Wintermute\_8
- Track 69 : MissDaisy\_8
- Track 70 : Ruthiejr\_7
- Track 71 : Edugator\_4, Dadosky\_5
- Track 72 : Agent47\_5
- Track 73 : Collard\_5

- Track 74 : Heftyboy\_5, Paola\_5, Waterfoul\_5, Gengar\_5, SoSeph\_5, OkiRoe\_5, Guillsminger\_5, Leston\_5
- Track 75 : Miryou\_5, Feyre\_5, Thyatira\_5
- Track 76 : Rando14\_5
- Track 77 : Omnicron\_5
- Track 78 : Bryler\_6, Cain\_6, Tierra\_6, Phrank\_6, Unicorn\_6, Krueger\_6, PhelpsODU\_6
- Track 79 : Ximenita\_7
- Track 80 : Yuna\_7
- Track 81 : DarthP\_6, Hammy\_6
- Track 82 : Marshawn\_8
- Track 83 : Amohnition\_6
- Track 84 : Amgine\_5, Ellie\_4, Fefferhead\_6
- Track 85 : Ekdilam\_4
- Track 86 : Shadow1\_5, Syra333\_6, Sunflower1121\_5
- Track 87 : SirPhilip\_6
- Track 88 : TClif\_6
- Track 89 : Aminay\_5
- Track 90 : Boilgate\_4
- Track 91 : MrSmee\_1
- Track 92 : LilSpotty\_1
- Track 93 : MooMoo\_1

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

The start number called the most often in the published annotations is 54, it was called in 103 of the 250 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp\_7, Adephagia\_7, Amgine\_5, Angelica\_7, Apocalypse\_7, Asayake\_7, BEEST\_7, BGlluviae\_7, BaghaKamala\_7, BarrelRoll\_7, Beezoo\_7, Bella96\_7, Belladonna\_7, Binglebops\_3, Blizzard\_7, Boiiii\_7, Capricorn\_7, CheetoDust\_7, Chris\_6, Curiosium\_8, Dadosky\_5, Dalmuri\_7, DarthP\_6, Deby\_7, Devera\_7, Dole\_7, DrHayes\_7, Durfee\_7, Edugator\_4, Efra2\_7, Ekdilam\_4, Ellie\_4, Emerson\_7, Enkosi\_3, Fefferhead\_6, Feyre\_5, Ganymede\_7, Gengar\_5, Geraldini\_7, Guanica15\_7, Guillsminger\_5, Hammy\_6, HedwigODU\_7, Heftyboy\_5, Homura\_7, Hyperbowlee\_7, Illumine\_7, Inky\_7, JAWS\_7, Jayhawk\_7, Jeckyll\_7, Joy99\_7, Keshu\_6, LaterM\_7, Leston\_5, LilPharaoh\_3, LindNT\_7, Lunahalos\_7, MacnCheese\_7, MarkPhew\_6, Marshawn\_8, Mdavu\_3, MeaningOfLife\_7, Miryou\_5, Murucutumbu\_7, Mynx\_7, Nibb\_6, Nikao\_3, Niklas\_7, Nutello\_3, OkiRoe\_5, Padpat\_7, Paola\_5, Pharb\_6, Piatt\_7, Pixie\_6, Pokerus\_6, Prithvi\_7, Ramen\_7, Rando14\_5, Rapunzel97\_7, Rosmarinus\_7, SamuelLPlaqson\_7, SgtBeansprout\_3, Shaobing\_7, ShedlockHolmes\_6, ShiaSurprise\_7, Slimphazie\_7, SoSeph\_5, Spock\_7, Sulley\_7, TClif\_6, Tachez\_7, TaiwanKao\_7, Thyatira\_5, TiniBug\_7, Tiri\_7, Topper\_7, TreyKay\_7, TribbleTrouble\_5, TruffulaTree\_7, Urkel\_7, Veliki\_7, Waterfoul\_5, YoureAdopted\_6, Yuna\_7, Yunkel11\_7,

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

- Adonis\_7, Agent47\_5, Ageofdapage\_7, AlishaPH\_7, Amelie\_3, Amohnition\_6, Anaya\_8, Atiba\_7, CREW\_7, CaseJules\_7, Collard\_5, CrimD\_7, Hurricane\_6,

Jarvi\_7, KiSi\_6, LastHope\_7, LeMond\_6, Llorens\_7, Megsy\_7, Omnicron\_5, Oscar\_6, Padfoot\_7, Peanam\_7, Peel\_7, QuincyRose\_6, Scarlett\_6, Stinson\_7, TBond007\_6, Twitch\_7, Validus\_7, Zabiza\_7, Zavala\_7,

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

- AbbyDaisy\_2, Aminay\_5, Angel\_1, Annihilator\_1, Antsirabe\_1, Aroostook\_1, Avocado\_1, Avrafan\_1, B22\_2, BPs\_1, BQuat\_1, Barkley26\_1, Boilgate\_4, BoostSeason\_3, BrayBeast\_1, BruceB\_1, Bryler\_6, CLED96\_1, Cain\_6, Cambiare\_2, Camri\_1, CassieYates\_1, Cedasite\_1, Chance64\_1, Chancellor\_8, Cheetobro\_8, Cherrybomb426\_1, Coleslaw\_1, Crespo\_1, DMoney\_1, DNAIII\_001, Darionha\_1, DismalFunk\_3, DismalStressor\_3, Doucette\_2, E6\_2, ECartman\_1, Eponine\_8, Findley\_3, Fionnbharth\_8, FlagStaff\_1, Frosty24\_1, G4\_2, Gideon\_1, GoldenAsh\_1, Gomashi\_1, Grizzly\_1, Halo\_1, Hope\_1, Hotshotbaby7\_1, JF1\_8, Jane\_1, Jolene\_1, Jolie2\_1, Jonghyun\_1, JorRay\_1, Juliette\_8, Kareem\_1, Kasen3\_1, Krueger\_6, Kumotta\_2, Lemuria\_1, Liefie\_1, LilSpotty\_1, LouisV14\_1, MOOREtheMARYer\_1, Malthus\_8, Marcoliusprime\_3, MargaretKali\_2, Marmie\_1, Mercurio\_2, Milly\_3, MissDaisy\_8, Mitti\_8, MooMoo\_1, Mowgli\_1, MrSme\_1, Mufasa\_3, OctaviousRex\_1, Olga\_1, OmniCritical\_8, Pace1224\_1, Paito\_1, Patt\_8, Peeb\_1, Periodt\_1, PhelpsODU\_6, Phish\_1, Phrank\_6, Phreak\_1, PinkYoshi\_1, Pinnie\_2, Pitbull\_1, Plagueis\_1, Rabbs\_1, Raqqa\_2, Remy19\_1, Renaissance\_1, Reptar3000\_8, Ruthiejr\_7, SamScheppers\_6, Sarge\_1, Schiebel\_1, ShaboiShabazz\_1, Shadow1\_5, SirPhilip\_6, Sizemore\_1, Slarp\_8, Sneeze\_1, Stargaze\_1, Strobilo\_3, Sunflower1121\_5, Sweets\_1, Syra333\_6, TM4\_3, Taheera\_1, Taquito\_6, Terror\_1, Tierra\_6, TomBrady\_1, Unicorn\_6, Wintermute\_8, Ximenita\_7, Y10\_08, Y2\_08, ZoMa\_1, ZoeJ\_3, Zombie\_1,

### Summary by start number:

Start 23:

- Found in 72 of 267 ( 27.0% ) of genes in pham
- Manual Annotations of this start: 38 of 250
- Called 54.2% of time when present
- Phage (with cluster) where this start called: Angel\_1 (G1), Annihilator\_1 (G1), Aroostook\_1 (G1), Avrafan\_1 (G1), BPs\_1 (G1), BQuat\_1 (G1), Barkley26\_1 (G1), BruceB\_1 (G1), CLED96\_1 (G1), Camri\_1 (G1), CassieYates\_1 (G1), Cedasite\_1 (G1), Chance64\_1 (G1), Coleslaw\_1 (G1), Crespo\_1 (G1), DNAIII\_001 (G1), ECartman\_1 (G1), Frosty24\_1 (G1), Gideon\_1 (G1), Gomashi\_1 (G1), Halo\_1 (G1), Hope\_1 (G1), Jane\_1 (G1), Jolene\_1 (G1), Jonghyun\_1 (G1), JorRay\_1 (G1), Kareem\_1 (G1), Liefie\_1 (G1), LouisV14\_1 (G1), Marmie\_1 (G1), OctaviousRex\_1 (G1), Periodt\_1 (G1), Phreak\_1 (G1), Rabbs\_1 (G1), Remy19\_1 (G1), Renaissance\_1 (G1), Sneeze\_1 (G1), TomBrady\_1 (G1), Zombie\_1 (G1),

Start 25:

- Found in 64 of 267 ( 24.0% ) of genes in pham
- Manual Annotations of this start: 20 of 250
- Called 34.4% of time when present
- Phage (with cluster) where this start called: Cherrybomb426\_1 (G1), DMoney\_1 (G1), Darionha\_1 (G1), GoldenAsh\_1 (G1), Grizzly\_1 (G1), Hotshotbaby7\_1 (G1), Jolie2\_1 (G4), Kasen3\_1 (G1), Lemuria\_1 (G4), Mowgli\_1 (G1), Olga\_1 (G1), Peeb\_1 (G1), Phish\_1 (G1), PinkYoshi\_1 (G1), Plagueis\_1 (G1), Schiebel\_1 (G1), ShaboiShabazz\_1 (G1), Sizemore\_1 (G1), Sweets\_1 (G1), Taheera\_1 (G1), Terror\_1 (G1), ZoMa\_1 (G1),

Start 28:

- Found in 2 of 267 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cambiare\_2 (G2), Paito\_1 (G1),

Start 29:

- Found in 8 of 267 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 5 of 250
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Antsirabe\_1 (G5), Avocado\_1 (G2), FlagStaff\_1 (G2), MOOREtheMARYer\_1 (G3), Pace1224\_1 (G2), Pinnie\_2 (G3), Stargaze\_1 (G5),

Start 30:

- Found in 3 of 267 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Mercurio\_2 (G4),

Start 31:

- Found in 18 of 267 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 2 of 250
- Called 11.1% of time when present
- Phage (with cluster) where this start called: BrayBeast\_1 (FB), Sarge\_1 (FB),

Start 33:

- Found in 1 of 267 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilSpotty\_1 (singleton),

Start 35:

- Found in 10 of 267 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 7 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_2 (AY), B22\_2 (BW), Doucette\_2 (BW), E6\_2 (BW), G4\_2 (BW), Kumotta\_2 (FB), MooMoo\_1 (singleton), MrSme\_1 (UNK), Pitbull\_1 (FQ), Raqqa\_2 (AY),

Start 42:

- Found in 1 of 267 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 250
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MargaretKali\_2 (FB),

Start 46:

- Found in 20 of 267 ( 7.5% ) of genes in pham
- Manual Annotations of this start: 2 of 250
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Hurricane\_6 (K3), TBond007\_6 (K3),

Start 47:

- Found in 26 of 267 ( 9.7% ) of genes in pham
- Manual Annotations of this start: 20 of 250
- Called 76.9% of time when present
- Phage (with cluster) where this start called: Boilgate\_4 (K8), Chancellor\_8 (K4), Cheetobro\_8 (K4), Eponine\_8 (K4), Fionnbharth\_8 (K4), JF1\_8 (K4), Juliette\_8 (K4), Malthus\_8 (K4), MissDaisy\_8 (K4), Mitti\_8 (K4), OmniCritical\_8 (K4), Patt\_8 (K4), Reptar3000\_8 (K4), Ruthiejr\_7 (K4), SamScheppers\_6 (K4), Slarp\_8 (K4), Taquito\_6 (K4), Wintermute\_8 (K4), Y10\_08 (K4), Y2\_08 (K4),

#### Start 49:

- Found in 112 of 267 ( 41.9% ) of genes in pham
- Manual Annotations of this start: 21 of 250
- Called 20.5% of time when present
- Phage (with cluster) where this start called: Adonis\_7 (K1), AlishaPH\_7 (K1), Amelie\_3 (K1), Amohntion\_6 (K6), Anaya\_8 (K1), CREW\_7 (K1), CaseJules\_7 (K1), CrimD\_7 (K1), Jarvi\_7 (K1), KiSi\_6 (K1), LeMond\_6 (K1), Llorens\_7 (K1), Megsy\_7 (K1), Oscar\_6 (K1), Padfoot\_7 (K1), Peanam\_7 (K1), Peel\_7 (K1), QuincyRose\_6 (K1), Scarlett\_6 (K1), Stinson\_7 (K1), Twitch\_7 (K1), Validus\_7 (K1), Zavala\_7 (K1),

#### Start 50:

- Found in 10 of 267 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 3 of 250
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Agent47\_5 (K5), Aminay\_5 (K7), Collard\_5 (K5), Omnicron\_5 (K5),

#### Start 52:

- Found in 67 of 267 ( 25.1% ) of genes in pham
- Manual Annotations of this start: 3 of 250
- Called 6.0% of time when present
- Phage (with cluster) where this start called: Ageofdapage\_7 (K1), Atiba\_7 (K1), LastHope\_7 (K1), Zabiza\_7 (K1),

#### Start 53:

- Found in 24 of 267 ( 9.0% ) of genes in pham
- Manual Annotations of this start: 21 of 250
- Called 91.7% of time when present
- Phage (with cluster) where this start called: BoostSeason\_3 (K2), Bryler\_6 (K6), Cain\_6 (K6), DismalFunk\_3 (K2), DismalStressor\_3 (K2), Findley\_3 (K2), Krueger\_6 (K6), Marcoliusprime\_3 (K2), Milly\_3 (K2), Mufasa\_3 (K2), PhelpsODU\_6 (K6), Phrank\_6 (K6), Shadow1\_5 (K6), SirPhilip\_6 (K6), Strobilo\_3 (K2), Sunflower1121\_5 (K6), Syra333\_6 (K6), TM4\_3 (K2), Tierra\_6 (K6), Unicorn\_6 (K6), Ximenita\_7 (K6), ZoeJ\_3 (K2),

#### Start 54:

- Found in 139 of 267 ( 52.1% ) of genes in pham
- Manual Annotations of this start: 103 of 250
- Called 77.0% of time when present
- Phage (with cluster) where this start called: ActinUp\_7 (K1), Adephagia\_7 (K1), Amgine\_5 (K6), Angelica\_7 (K1), Apocalypse\_7 (K1), Asayake\_7 (K1), BEEST\_7 (K1), BGlluviae\_7 (K1), BaghaKamala\_7 (K1), BarrelRoll\_7 (K1), Beezoo\_7 (K1), Bella96\_7 (K1), Belladonna\_7 (K1), Binglebops\_3 (K1), Blizzard\_7 (K1), Boiii\_7 (K1), Capricorn\_7 (K1), CheetoDust\_7 (K1), Chris\_6 (K1), Curiosium\_8 (K1), Dadosky\_5



(K5), Dalmuri\_7 (K1), DarthP\_6 (K6), Deby\_7 (K1), Devera\_7 (K1), Dole\_7 (K1), DrHayes\_7 (K1), Durfee\_7 (K1), Edugator\_4 (K5), Efra2\_7 (K1), Ekdilam\_4 (K6), Ellie\_4 (K6), Emerson\_7 (K1), Enkosi\_3 (K1), Fefferhead\_6 (K6), Feyre\_5 (K5), Ganymede\_7 (K1), Gengar\_5 (K5), Geraldini\_7 (K1), Guanica15\_7 (K1), Guillsminger\_5 (K5), Hammy\_6 (K6), HedwigODU\_7 (K1), Heftyboy\_5 (K5), Homura\_7 (K1), Hyperbowlee\_7 (K1), Illumine\_7 (K1), Inky\_7 (K1), JAWS\_7 (K1), Jayhawk\_7 (K1), Jeckyll\_7 (K1), Joy99\_7 (K1), Keshu\_6 (K3), LaterM\_7 (K1), Leston\_5 (K5), LilPharaoh\_3 (K1), LindNT\_7 (K1), Lunahalos\_7 (K1), MacnCheese\_7 (K3), MarkPheW\_6 (K1), Marshawn\_8 (K6), Mdavu\_3 (K1), MeaningOfLife\_7 (K1), Miryou\_5 (K5), Murucutumbu\_7 (K1), Mynx\_7 (K1), Nibb\_6 (K1), Nikao\_3 (K1), Niklas\_7 (K1), Nutello\_3 (K1), OkiRoe\_5 (K5), Padpat\_7 (K1), Paola\_5 (K5), Pharb\_6 (K3), Piatt\_7 (K1), Pixie\_6 (K3), Pokerus\_6 (K1), Prithvi\_7 (K1), Ramen\_7 (K1), Rando14\_5 (K5), Rapunzel97\_7 (K1), Rosmarinus\_7 (K1), SamuelLPlaQson\_7 (K1), SgtBeansprout\_3 (K1), Shaobing\_7 (K1), ShedlockHolmes\_6 (K3), ShiaSurprise\_7 (K1), Slimphazie\_7 (K1), SoSeph\_5 (K5), Spock\_7 (K1), Sulley\_7 (K1), TClif\_6 (K6), Tachez\_7 (K1), TaiwanKao\_7 (K1), Thyatira\_5 (K5), TiniBug\_7 (K1), Tiri\_7 (K1), Topper\_7 (K1), TreyKay\_7 (K1), TribbleTrouble\_5 (K3), TruffulaTree\_7 (K1), Urkel\_7 (K1), Veliki\_7 (K1), Waterfoul\_5 (K5), YoureAdopted\_6 (K1), Yuna\_7 (K6), Yunkel11\_7 (K1),

### Summary by clusters:

There are 19 clusters represented in this pham: FQ, singleton, G4, G3, G2, G1, K8, FB, G5, K3, K2, K1, BW, K7, K6, K5, K4, AY, UNK,

Info for manual annotations of cluster AY:

- Start number 35 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BW:

- Start number 35 was manually annotated 4 times for cluster BW.

Info for manual annotations of cluster FB:

- Start number 31 was manually annotated 2 times for cluster FB.
- Start number 35 was manually annotated 1 time for cluster FB.
- Start number 42 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster G1:

- Start number 23 was manually annotated 38 times for cluster G1.
- Start number 25 was manually annotated 19 times for cluster G1.
- Start number 28 was manually annotated 1 time for cluster G1.

Info for manual annotations of cluster G2:

- Start number 28 was manually annotated 1 time for cluster G2.
- Start number 29 was manually annotated 2 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 29 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 25 was manually annotated 1 time for cluster G4.
- Start number 30 was manually annotated 1 time for cluster G4.

Info for manual annotations of cluster G5:

- Start number 29 was manually annotated 1 time for cluster G5.

Info for manual annotations of cluster K1:

- Start number 49 was manually annotated 20 times for cluster K1.
- Start number 52 was manually annotated 3 times for cluster K1.
- Start number 54 was manually annotated 76 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 53 was manually annotated 9 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 46 was manually annotated 2 times for cluster K3.
- Start number 54 was manually annotated 6 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 47 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 50 was manually annotated 2 times for cluster K5.
- Start number 54 was manually annotated 13 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 49 was manually annotated 1 time for cluster K6.
- Start number 53 was manually annotated 12 times for cluster K6.
- Start number 54 was manually annotated 8 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 50 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 47 was manually annotated 1 time for cluster K8.

### ***Gene Information:***

Gene: AbbyDaisy\_2 Start: 413, Stop: 712, Start Num: 35

Candidate Starts for AbbyDaisy\_2:

(Start: 35 @413 has 7 MA's), (44, 437), (61, 521), (63, 530),

Gene: ActinUp\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for ActinUp\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Adephagia\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for Adephagia\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Adonis\_7 Start: 1384, Stop: 1620, Start Num: 49

Candidate Starts for Adonis\_7:

(41, 1339), (Start: 49 @1384 has 21 MA's), (Start: 52 @1390 has 3 MA's), (Start: 54 @1393 has 103 MA's), (61, 1426), (63, 1435), (69, 1459), (75, 1513),

Gene: Agent47\_5 Start: 1102, Stop: 1338, Start Num: 50

Candidate Starts for Agent47\_5:

(21, 979), (24, 1009), (36, 1036), (Start: 50 @1102 has 3 MA's), (51, 1105), (Start: 54 @1111 has 103 MA's), (59, 1135), (63, 1153), (69, 1177), (75, 1231), (93, 1300), (94, 1315),

Gene: Ageofdapage\_7 Start: 1322, Stop: 1552, Start Num: 52

Candidate Starts for Ageofdapage\_7:

(41, 1271), (Start: 49 @1316 has 21 MA's), (Start: 52 @1322 has 3 MA's), (Start: 54 @1325 has 103 MA's), (61, 1358), (63, 1367), (69, 1391), (75, 1445),

Gene: AlishaPH\_7 Start: 1372, Stop: 1608, Start Num: 49

Candidate Starts for AlishaPH\_7:

(41, 1327), (Start: 49 @1372 has 21 MA's), (Start: 52 @1378 has 3 MA's), (Start: 54 @1381 has 103 MA's), (61, 1414), (63, 1423), (69, 1447), (75, 1501),

Gene: Amelie\_3 Start: 627, Stop: 863, Start Num: 49

Candidate Starts for Amelie\_3:

(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),

Gene: Amgine\_5 Start: 970, Stop: 1197, Start Num: 54

Candidate Starts for Amgine\_5:

(Start: 49 @961 has 21 MA's), (Start: 54 @970 has 103 MA's), (63, 1012), (69, 1036), (75, 1090), (83, 1123),

Gene: Aminay\_5 Start: 1070, Stop: 1327, Start Num: 50

Candidate Starts for Aminay\_5:

(Start: 50 @1070 has 3 MA's), (60, 1127), (61, 1130), (62, 1133), (63, 1139), (74, 1214),

Gene: Amohnition\_6 Start: 1167, Stop: 1403, Start Num: 49

Candidate Starts for Amohnition\_6:

(Start: 49 @1167 has 21 MA's), (Start: 54 @1176 has 103 MA's), (63, 1218), (69, 1242), (75, 1296), (85, 1341),

Gene: Anaya\_8 Start: 1396, Stop: 1632, Start Num: 49

Candidate Starts for Anaya\_8:

(38, 1345), (Start: 49 @1396 has 21 MA's), (Start: 54 @1405 has 103 MA's), (63, 1447), (69, 1471), (75, 1525),

Gene: Angel\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Angel\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Angelica\_7 Start: 1364, Stop: 1591, Start Num: 54

Candidate Starts for Angelica\_7:

(38, 1304), (Start: 49 @1355 has 21 MA's), (Start: 54 @1364 has 103 MA's), (63, 1406), (69, 1430), (75, 1484),

Gene: Annihilator\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Annihilator\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Antsirabe\_1 Start: 53, Stop: 382, Start Num: 29

Candidate Starts for Antsirabe\_1:

(Start: 29 @53 has 5 MA's), (39, 80), (56, 146), (63, 191), (69, 215), (70, 245), (74, 266),

Gene: Apocalypse\_7 Start: 1360, Stop: 1587, Start Num: 54

Candidate Starts for Apocalypse\_7:

(41, 1306), (Start: 49 @1351 has 21 MA's), (Start: 52 @1357 has 3 MA's), (Start: 54 @1360 has 103 MA's), (61, 1393), (63, 1402), (69, 1426), (75, 1480),

Gene: Aroostook\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Aroostook\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Asayake\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Asayake\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Atiba\_7 Start: 1342, Stop: 1572, Start Num: 52

Candidate Starts for Atiba\_7:

(41, 1291), (Start: 49 @1336 has 21 MA's), (Start: 52 @1342 has 3 MA's), (Start: 54 @1345 has 103 MA's), (61, 1378), (63, 1387), (69, 1411), (75, 1465),

Gene: Avocado\_1 Start: 54, Stop: 380, Start Num: 29

Candidate Starts for Avocado\_1:

(Start: 29 @54 has 5 MA's), (56, 144), (60, 177), (63, 189), (73, 255), (77, 273), (78, 276), (80, 285),

Gene: Avrafan\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Avrafan\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: B22\_2 Start: 706, Stop: 1002, Start Num: 35

Candidate Starts for B22\_2:

(Start: 35 @706 has 7 MA's), (44, 727), (61, 811), (65, 832), (69, 844), (75, 898),

Gene: BEEST\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for BEEST\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: BGlluviae\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for BGlluviae\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: BPs\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for BPs\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: BQuat\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for BQuat\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: BaghaKamala\_7 Start: 1352, Stop: 1579, Start Num: 54

Candidate Starts for BaghaKamala\_7:

(41, 1298), (Start: 49 @1343 has 21 MA's), (Start: 52 @1349 has 3 MA's), (Start: 54 @1352 has 103 MA's), (61, 1385), (69, 1418), (75, 1472),

Gene: Barkley26\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Barkley26\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: BarrelRoll\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for BarrelRoll\_7:

(41, 1322), (Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Beezoo\_7 Start: 1405, Stop: 1632, Start Num: 54

Candidate Starts for Beezoo\_7:

(41, 1351), (Start: 49 @1396 has 21 MA's), (Start: 52 @1402 has 3 MA's), (Start: 54 @1405 has 103 MA's), (61, 1438), (63, 1447), (69, 1471), (75, 1525),

Gene: Bella96\_7 Start: 1334, Stop: 1561, Start Num: 54

Candidate Starts for Bella96\_7:

(41, 1283), (Start: 49 @1325 has 21 MA's), (Start: 54 @1334 has 103 MA's), (63, 1376), (69, 1400), (75, 1454),

Gene: Belladonna\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Belladonna\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Biglebops\_3 Start: 636, Stop: 863, Start Num: 54

Candidate Starts for Biglebops\_3:

(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),

Gene: Blizzard\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Blizzard\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Boiiii\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Boiiii\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Boilgate\_4 Start: 1309, Stop: 1578, Start Num: 47

Candidate Starts for Boilgate\_4:

(Start: 47 @1309 has 20 MA's), (Start: 53 @1327 has 21 MA's), (55, 1339), (60, 1375), (61, 1378), (62, 1381), (63, 1387), (70, 1441),

Gene: BoostSeason\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for BoostSeason\_3:

(Start: 47 @408 has 20 MA's), (Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (69, 513), (75, 567),

Gene: BrayBeast\_1 Start: 49, Stop: 357, Start Num: 31

Candidate Starts for BrayBeast\_1:

(Start: 25 @28 has 20 MA's), (Start: 31 @49 has 2 MA's), (44, 85), (57, 142), (82, 277),

Gene: BruceB\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for BruceB\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Bryler\_6 Start: 1277, Stop: 1525, Start Num: 53

Candidate Starts for Bryler\_6:

(Start: 46 @1247 has 2 MA's), (Start: 53 @1277 has 21 MA's), (63, 1340), (65, 1352), (75, 1418),

Gene: CLED96\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for CLED96\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: CREW\_7 Start: 1417, Stop: 1653, Start Num: 49

Candidate Starts for CREW\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Cain\_6 Start: 1277, Stop: 1525, Start Num: 53

Candidate Starts for Cain\_6:

(Start: 46 @1247 has 2 MA's), (Start: 53 @1277 has 21 MA's), (63, 1340), (65, 1352), (75, 1418),

Gene: Cambiare\_2 Start: 534, Stop: 869, Start Num: 28

Candidate Starts for Cambiare\_2:

(13, 384), (Start: 25 @525 has 20 MA's), (Start: 28 @534 has 2 MA's), (37, 555), (39, 564), (56, 633), (58, 651), (60, 666), (75, 756), (80, 774), (82, 783),

Gene: Camri\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Camri\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Capricorn\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Capricorn\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: CaseJules\_7 Start: 1417, Stop: 1653, Start Num: 49

Candidate Starts for CaseJules\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: CassieYates\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for CassieYates\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Cedasite\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Cedasite\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Chance64\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Chance64\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Chancellor\_8 Start: 2234, Stop: 2506, Start Num: 47

Candidate Starts for Chancellor\_8:

(Start: 23 @2147 has 38 MA's), (Start: 31 @2171 has 2 MA's), (Start: 47 @2234 has 20 MA's), (60, 2303), (61, 2306), (65, 2327), (70, 2369), (87, 2453),

Gene: CheetoDust\_7 Start: 1402, Stop: 1629, Start Num: 54

Candidate Starts for CheetoDust\_7:

(41, 1348), (Start: 49 @1393 has 21 MA's), (Start: 52 @1399 has 3 MA's), (Start: 54 @1402 has 103 MA's), (61, 1435), (63, 1444), (69, 1468), (75, 1522),

Gene: Cheetobro\_8 Start: 2234, Stop: 2506, Start Num: 47

Candidate Starts for Cheetobro\_8:

(Start: 23 @2147 has 38 MA's), (Start: 31 @2171 has 2 MA's), (Start: 47 @2234 has 20 MA's), (60, 2303), (61, 2306), (65, 2327), (70, 2369), (87, 2453),

Gene: Cherrybomb426\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Cherrybomb426\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Chris\_6 Start: 1317, Stop: 1541, Start Num: 54

Candidate Starts for Chris\_6:

(Start: 49 @1308 has 21 MA's), (Start: 54 @1317 has 103 MA's), (69, 1380), (75, 1434),

Gene: Coleslaw\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Coleslaw\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Collard\_5 Start: 1095, Stop: 1331, Start Num: 50

Candidate Starts for Collard\_5:

(19, 921), (20, 933), (21, 972), (24, 1002), (Start: 50 @1095 has 3 MA's), (51, 1098), (Start: 54 @1104 has 103 MA's), (69, 1170), (72, 1209), (75, 1224),

Gene: Crespo\_1 Start: 44, Stop: 388, Start Num: 23

Candidate Starts for Crespo\_1:

(Start: 23 @44 has 38 MA's), (Start: 25 @47 has 20 MA's), (56, 149), (69, 218), (74, 269),

Gene: CrimD\_7 Start: 1342, Stop: 1578, Start Num: 49

Candidate Starts for CrimD\_7:

(Start: 49 @1342 has 21 MA's), (Start: 54 @1351 has 103 MA's), (63, 1393), (69, 1417), (75, 1471),

Gene: Curiosium\_8 Start: 1733, Stop: 1978, Start Num: 54

Candidate Starts for Curiosium\_8:

(Start: 49 @1724 has 21 MA's), (Start: 52 @1730 has 3 MA's), (Start: 54 @1733 has 103 MA's), (63, 1793), (68, 1814), (74, 1868), (75, 1871), (89, 1931),

Gene: DMoney\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for DMoney\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: DNAIII\_001 Start: 52, Stop: 396, Start Num: 23

Candidate Starts for DNAIII\_001:

(Start: 23 @52 has 38 MA's), (Start: 25 @55 has 20 MA's), (56, 157), (69, 226), (74, 277),

Gene: Dadosky\_5 Start: 1129, Stop: 1356, Start Num: 54

Candidate Starts for Dadosky\_5:

(21, 997), (24, 1027), (36, 1054), (Start: 50 @1120 has 3 MA's), (51, 1123), (Start: 54 @1129 has 103 MA's), (59, 1153), (63, 1171), (69, 1195), (70, 1225), (75, 1249), (93, 1318), (94, 1333),

Gene: Dalmuri\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Dalmuri\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Darionha\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Darionha\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: DarthP\_6 Start: 1176, Stop: 1403, Start Num: 54

Candidate Starts for DarthP\_6:

(Start: 49 @1167 has 21 MA's), (Start: 54 @1176 has 103 MA's), (63, 1218), (69, 1242), (75, 1296), (85, 1341),

Gene: Deby\_7 Start: 1364, Stop: 1591, Start Num: 54

Candidate Starts for Deby\_7:

(38, 1304), (Start: 49 @1355 has 21 MA's), (Start: 54 @1364 has 103 MA's), (63, 1406), (69, 1430), (75, 1484),

Gene: Devera\_7 Start: 1393, Stop: 1620, Start Num: 54

Candidate Starts for Devera\_7:

(41, 1339), (Start: 49 @1384 has 21 MA's), (Start: 52 @1390 has 3 MA's), (Start: 54 @1393 has 103 MA's), (61, 1426), (63, 1435), (69, 1459), (75, 1513),

Gene: DismalFunk\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for DismalFunk\_3:

(Start: 47 @408 has 20 MA's), (Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (75, 567),

Gene: DismalStressor\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for DismalStressor\_3:

(Start: 47 @408 has 20 MA's), (Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (75, 567),

Gene: Dole\_7 Start: 1393, Stop: 1620, Start Num: 54

Candidate Starts for Dole\_7:

(41, 1339), (Start: 49 @1384 has 21 MA's), (Start: 52 @1390 has 3 MA's), (Start: 54 @1393 has 103 MA's), (61, 1426), (63, 1435), (69, 1459), (75, 1513),

Gene: Doucette\_2 Start: 706, Stop: 1002, Start Num: 35

Candidate Starts for Doucette\_2:

(Start: 35 @706 has 7 MA's), (44, 727), (61, 811), (65, 832), (69, 844), (75, 898),

Gene: DrHayes\_7 Start: 1355, Stop: 1582, Start Num: 54



Candidate Starts for DrHayes\_7:

(41, 1304), (Start: 49 @1346 has 21 MA's), (Start: 54 @1355 has 103 MA's), (63, 1397), (69, 1421), (75, 1475),

Gene: Durfee\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Durfee\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: E6\_2 Start: 707, Stop: 1003, Start Num: 35

Candidate Starts for E6\_2:

(6, 446), (7, 467), (11, 527), (14, 539), (17, 578), (Start: 35 @707 has 7 MA's), (44, 728), (61, 812), (65, 833), (69, 845), (75, 899),

Gene: ECartman\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for ECartman\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Edugator\_4 Start: 1129, Stop: 1356, Start Num: 54

Candidate Starts for Edugator\_4:

(21, 997), (24, 1027), (36, 1054), (Start: 50 @1120 has 3 MA's), (51, 1123), (Start: 54 @1129 has 103 MA's), (59, 1153), (63, 1171), (69, 1195), (70, 1225), (75, 1249), (93, 1318), (94, 1333),

Gene: Efra2\_7 Start: 1360, Stop: 1587, Start Num: 54

Candidate Starts for Efra2\_7:

(38, 1297), (Start: 49 @1351 has 21 MA's), (Start: 54 @1360 has 103 MA's), (69, 1426), (75, 1480), (83, 1513),

Gene: Ekdilam\_4 Start: 911, Stop: 1138, Start Num: 54

Candidate Starts for Ekdilam\_4:

(22, 785), (41, 860), (Start: 49 @902 has 21 MA's), (Start: 54 @911 has 103 MA's), (63, 953), (69, 977), (75, 1031), (85, 1076),

Gene: Ellie\_4 Start: 1002, Stop: 1229, Start Num: 54

Candidate Starts for Ellie\_4:

(Start: 49 @993 has 21 MA's), (Start: 54 @1002 has 103 MA's), (63, 1044), (69, 1068), (75, 1122), (83, 1155),

Gene: Emerson\_7 Start: 1382, Stop: 1609, Start Num: 54

Candidate Starts for Emerson\_7:

(41, 1328), (Start: 49 @1373 has 21 MA's), (Start: 52 @1379 has 3 MA's), (Start: 54 @1382 has 103 MA's), (61, 1415), (63, 1424), (69, 1448), (75, 1502),

Gene: Enkosi\_3 Start: 636, Stop: 863, Start Num: 54

Candidate Starts for Enkosi\_3:

(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),

Gene: Eponine\_8 Start: 2229, Stop: 2498, Start Num: 47

Candidate Starts for Eponine\_8:

(Start: 47 @2229 has 20 MA's), (60, 2295), (61, 2298), (87, 2445),

Gene: Fefferhead\_6 Start: 1172, Stop: 1399, Start Num: 54

Candidate Starts for Fefferhead\_6:

(Start: 49 @1163 has 21 MA's), (Start: 54 @1172 has 103 MA's), (63, 1214), (69, 1238), (75, 1292), (83, 1325),

Gene: Feyre\_5 Start: 1105, Stop: 1332, Start Num: 54

Candidate Starts for Feyre\_5:

(19, 922), (20, 934), (21, 973), (24, 1003), (Start: 50 @1096 has 3 MA's), (51, 1099), (Start: 54 @1105 has 103 MA's), (69, 1171), (72, 1210), (75, 1225),

Gene: Findley\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for Findley\_3:

(Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (75, 567),

Gene: Fionnbharth\_8 Start: 2221, Stop: 2493, Start Num: 47

Candidate Starts for Fionnbharth\_8:

(Start: 23 @2134 has 38 MA's), (Start: 31 @2158 has 2 MA's), (Start: 47 @2221 has 20 MA's), (60, 2290), (61, 2293), (65, 2314), (70, 2356), (87, 2440),

Gene: FlagStaff\_1 Start: 52, Stop: 387, Start Num: 29

Candidate Starts for FlagStaff\_1:

(Start: 29 @52 has 5 MA's), (39, 79), (69, 214), (70, 244),

Gene: Frosty24\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Frosty24\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: G4\_2 Start: 706, Stop: 1002, Start Num: 35

Candidate Starts for G4\_2:

(Start: 35 @706 has 7 MA's), (44, 727), (61, 811), (65, 832), (69, 844), (75, 898),

Gene: Ganymede\_7 Start: 1402, Stop: 1629, Start Num: 54

Candidate Starts for Ganymede\_7:

(41, 1348), (Start: 49 @1393 has 21 MA's), (Start: 52 @1399 has 3 MA's), (Start: 54 @1402 has 103 MA's), (61, 1435), (63, 1444), (69, 1468), (75, 1522),

Gene: Gengar\_5 Start: 1131, Stop: 1358, Start Num: 54

Candidate Starts for Gengar\_5:

(Start: 54 @1131 has 103 MA's), (60, 1161), (63, 1173), (69, 1197), (75, 1251),

Gene: Geraldini\_7 Start: 1405, Stop: 1632, Start Num: 54

Candidate Starts for Geraldini\_7:

(41, 1351), (Start: 49 @1396 has 21 MA's), (Start: 52 @1402 has 3 MA's), (Start: 54 @1405 has 103 MA's), (61, 1438), (63, 1447), (69, 1471), (75, 1525),

Gene: Gideon\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Gideon\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: GoldenAsh\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for GoldenAsh\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Gomashi\_1 Start: 44, Stop: 388, Start Num: 23

Candidate Starts for Gomashi\_1:

(Start: 23 @44 has 38 MA's), (Start: 25 @47 has 20 MA's), (56, 149), (69, 218), (74, 269),

Gene: Grizzly\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Grizzly\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Guanica15\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for Guanica15\_7:

(38, 1313), (Start: 49 @1367 has 21 MA's), (Start: 54 @1376 has 103 MA's), (69, 1442), (75, 1496),

Gene: Guillsminger\_5 Start: 1106, Stop: 1333, Start Num: 54

Candidate Starts for Guillsminger\_5:

(Start: 54 @1106 has 103 MA's), (60, 1136), (63, 1148), (69, 1172), (75, 1226),

Gene: Halo\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Halo\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Hammy\_6 Start: 1173, Stop: 1400, Start Num: 54

Candidate Starts for Hammy\_6:

(Start: 49 @1164 has 21 MA's), (Start: 54 @1173 has 103 MA's), (63, 1215), (69, 1239), (75, 1293), (85, 1338),

Gene: HedwigODU\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for HedwigODU\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Heftyboy\_5 Start: 1127, Stop: 1354, Start Num: 54

Candidate Starts for Heftyboy\_5:

(Start: 54 @1127 has 103 MA's), (60, 1157), (63, 1169), (69, 1193), (75, 1247),

Gene: Homura\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Homura\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Hope\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Hope\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Hotshotbaby7\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Hotshotbaby7\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Hurricane\_6 Start: 1250, Stop: 1510, Start Num: 46

Candidate Starts for Hurricane\_6:

(Start: 46 @1250 has 2 MA's), (Start: 54 @1280 has 103 MA's), (62, 1319), (63, 1325), (69, 1349), (75, 1403), (81, 1427),

Gene: Hyperbowlee\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Hyperbowlee\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Illumine\_7 Start: 1393, Stop: 1620, Start Num: 54

Candidate Starts for Illumine\_7:

(41, 1339), (Start: 49 @1384 has 21 MA's), (Start: 52 @1390 has 3 MA's), (Start: 54 @1393 has 103 MA's), (61, 1426), (63, 1435), (69, 1459), (75, 1513),

Gene: Inky\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Inky\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: JAWS\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for JAWS\_7:

(41, 1322), (Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: JF1\_8 Start: 2221, Stop: 2493, Start Num: 47

Candidate Starts for JF1\_8:

(Start: 23 @2134 has 38 MA's), (Start: 31 @2158 has 2 MA's), (Start: 47 @2221 has 20 MA's), (60, 2290), (61, 2293), (65, 2314), (70, 2356), (87, 2440),

Gene: Jane\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Jane\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Jarvi\_7 Start: 1417, Stop: 1653, Start Num: 49

Candidate Starts for Jarvi\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Jayhawk\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for Jayhawk\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Jeckyll\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Jeckyll\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Jolene\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Jolene\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Jolie2\_1 Start: 45, Stop: 404, Start Num: 25

Candidate Starts for Jolie2\_1:

(Start: 25 @45 has 20 MA's), (72, 264), (77, 285), (91, 363),

Gene: Jonghyun\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Jonghyun\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: JorRay\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for JorRay\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Joy99\_7 Start: 1352, Stop: 1579, Start Num: 54

Candidate Starts for Joy99\_7:

(Start: 49 @1343 has 21 MA's), (Start: 52 @1349 has 3 MA's), (Start: 54 @1352 has 103 MA's), (61, 1385), (69, 1418), (75, 1472),

Gene: Juliette\_8 Start: 2229, Stop: 2498, Start Num: 47

Candidate Starts for Juliette\_8:

(Start: 47 @2229 has 20 MA's), (60, 2295), (61, 2298), (87, 2445),

Gene: Kareem\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Kareem\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Kasen3\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Kasen3\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Keshu\_6 Start: 1259, Stop: 1489, Start Num: 54

Candidate Starts for Keshu\_6:

(Start: 46 @1229 has 2 MA's), (Start: 54 @1259 has 103 MA's), (60, 1292), (62, 1298), (63, 1304), (69, 1328), (75, 1382), (81, 1406),

Gene: KiSi\_6 Start: 1261, Stop: 1497, Start Num: 49

Candidate Starts for KiSi\_6:

(Start: 49 @1261 has 21 MA's), (Start: 54 @1270 has 103 MA's), (69, 1336), (75, 1390),

Gene: Krueger\_6 Start: 1287, Stop: 1535, Start Num: 53

Candidate Starts for Krueger\_6:

(Start: 46 @1257 has 2 MA's), (Start: 53 @1287 has 21 MA's), (63, 1350), (65, 1362), (75, 1428),

Gene: Kumotta\_2 Start: 743, Stop: 1042, Start Num: 35

Candidate Starts for Kumotta\_2:

(Start: 30 @734 has 1 MA's), (Start: 35 @743 has 7 MA's), (39, 758), (43, 767), (56, 821), (63, 866), (70, 917), (92, 1010),

Gene: LastHope\_7 Start: 1385, Stop: 1633, Start Num: 52

Candidate Starts for LastHope\_7:

(Start: 49 @1379 has 21 MA's), (Start: 52 @1385 has 3 MA's), (Start: 54 @1388 has 103 MA's), (63, 1448), (65, 1460), (75, 1526),

Gene: LaterM\_7 Start: 1357, Stop: 1584, Start Num: 54

Candidate Starts for LaterM\_7:

(41, 1303), (Start: 49 @1348 has 21 MA's), (Start: 52 @1354 has 3 MA's), (Start: 54 @1357 has 103 MA's), (61, 1390), (63, 1399), (69, 1423), (75, 1477),

Gene: LeMond\_6 Start: 1261, Stop: 1497, Start Num: 49

Candidate Starts for LeMond\_6:

(Start: 49 @1261 has 21 MA's), (Start: 54 @1270 has 103 MA's), (69, 1336), (75, 1390),

Gene: Lemuria\_1 Start: 45, Stop: 404, Start Num: 25  
Candidate Starts for Lemuria\_1:  
(Start: 25 @45 has 20 MA's), (69, 225), (77, 285), (90, 360),

Gene: Leston\_5 Start: 1131, Stop: 1358, Start Num: 54  
Candidate Starts for Leston\_5:  
(Start: 54 @1131 has 103 MA's), (60, 1161), (63, 1173), (69, 1197), (75, 1251),

Gene: Liefie\_1 Start: 42, Stop: 386, Start Num: 23  
Candidate Starts for Liefie\_1:  
(Start: 23 @42 has 38 MA's), (Start: 25 @45 has 20 MA's), (56, 147), (69, 216), (74, 267), (82, 297),

Gene: LilPharaoh\_3 Start: 636, Stop: 863, Start Num: 54  
Candidate Starts for LilPharaoh\_3:  
(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),

Gene: LilSpotty\_1 Start: 54, Stop: 344, Start Num: 33  
Candidate Starts for LilSpotty\_1:  
(Start: 33 @54 has 1 MA's), (44, 75), (62, 162), (66, 183), (74, 237), (75, 240), (76, 243), (88, 297),

Gene: LindNT\_7 Start: 1351, Stop: 1578, Start Num: 54  
Candidate Starts for LindNT\_7:  
(Start: 49 @1342 has 21 MA's), (Start: 54 @1351 has 103 MA's), (63, 1393), (69, 1417), (75, 1471),

Gene: Llorens\_7 Start: 1417, Stop: 1653, Start Num: 49  
Candidate Starts for Llorens\_7:  
(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: LouisV14\_1 Start: 43, Stop: 387, Start Num: 23  
Candidate Starts for LouisV14\_1:  
(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Lunahalos\_7 Start: 1426, Stop: 1653, Start Num: 54  
Candidate Starts for Lunahalos\_7:  
(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: MOOREtheMARYer\_1 Start: 53, Stop: 379, Start Num: 29  
Candidate Starts for MOOREtheMARYer\_1:  
(26, 50), (Start: 29 @53 has 5 MA's), (39, 80), (56, 143), (60, 176), (63, 188), (73, 254), (77, 272),

Gene: MacnCheese\_7 Start: 1483, Stop: 1710, Start Num: 54  
Candidate Starts for MacnCheese\_7:  
(Start: 46 @1459 has 2 MA's), (Start: 54 @1483 has 103 MA's), (62, 1519), (63, 1525), (75, 1603), (81, 1627),

Gene: Malthus\_8 Start: 2221, Stop: 2493, Start Num: 47  
Candidate Starts for Malthus\_8:  
(Start: 23 @2134 has 38 MA's), (Start: 31 @2158 has 2 MA's), (Start: 47 @2221 has 20 MA's), (60, 2290), (61, 2293), (65, 2314), (70, 2356), (87, 2440),

Gene: Marcoliusprime\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for Marcoliusprime\_3:

(Start: 47 @408 has 20 MA's), (Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (75, 567),

Gene: MargaretKali\_2 Start: 578, Stop: 871, Start Num: 42

Candidate Starts for MargaretKali\_2:

(Start: 42 @578 has 1 MA's), (45, 593), (62, 680), (63, 686), (67, 704), (69, 710),

Gene: MarkPhew\_6 Start: 1221, Stop: 1448, Start Num: 54

Candidate Starts for MarkPhew\_6:

(Start: 49 @1212 has 21 MA's), (Start: 54 @1221 has 103 MA's), (69, 1287), (75, 1341),

Gene: Marmie\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Marmie\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Marshawn\_8 Start: 1819, Stop: 2043, Start Num: 54

Candidate Starts for Marshawn\_8:

(Start: 49 @1810 has 21 MA's), (Start: 54 @1819 has 103 MA's), (63, 1858), (69, 1882), (75, 1936),

Gene: Mdavu\_3 Start: 636, Stop: 863, Start Num: 54

Candidate Starts for Mdavu\_3:

(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),

Gene: MeaningOfLife\_7 Start: 1352, Stop: 1579, Start Num: 54

Candidate Starts for MeaningOfLife\_7:

(41, 1298), (Start: 49 @1343 has 21 MA's), (Start: 52 @1349 has 3 MA's), (Start: 54 @1352 has 103 MA's), (61, 1385), (69, 1418), (75, 1472),

Gene: Megsy\_7 Start: 1342, Stop: 1578, Start Num: 49

Candidate Starts for Megsy\_7:

(41, 1297), (Start: 49 @1342 has 21 MA's), (Start: 54 @1351 has 103 MA's), (63, 1393), (69, 1417), (75, 1471),

Gene: Mercurio\_2 Start: 700, Stop: 1044, Start Num: 30

Candidate Starts for Mercurio\_2:

(1, 271), (2, 343), (3, 349), (4, 355), (5, 415), (9, 514), (10, 523), (27, 691), (Start: 29 @697 has 5 MA's), (Start: 30 @700 has 1 MA's), (63, 844), (69, 868), (70, 898), (71, 901), (90, 1000),

Gene: Milly\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for Milly\_3:

(Start: 47 @408 has 20 MA's), (Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (75, 567),

Gene: Miryou\_5 Start: 1105, Stop: 1332, Start Num: 54

Candidate Starts for Miryou\_5:

(19, 922), (20, 934), (21, 973), (24, 1003), (Start: 50 @1096 has 3 MA's), (51, 1099), (Start: 54 @1105 has 103 MA's), (69, 1171), (72, 1210), (75, 1225),

Gene: MissDaisy\_8 Start: 2177, Stop: 2449, Start Num: 47

Candidate Starts for MissDaisy\_8:

(12, 1949), (15, 1970), (18, 1997), (Start: 31 @2114 has 2 MA's), (Start: 47 @2177 has 20 MA's), (60, 2246), (61, 2249), (62, 2252), (65, 2270), (70, 2312), (87, 2396),

Gene: Mitti\_8 Start: 2234, Stop: 2506, Start Num: 47

Candidate Starts for Mitti\_8:

(Start: 23 @2147 has 38 MA's), (Start: 31 @2171 has 2 MA's), (Start: 47 @2234 has 20 MA's), (60, 2303), (61, 2306), (65, 2327), (70, 2369), (87, 2453),

Gene: MooMoo\_1 Start: 63, Stop: 377, Start Num: 35

Candidate Starts for MooMoo\_1:

(Start: 35 @63 has 7 MA's), (43, 87), (Start: 53 @138 has 21 MA's), (62, 186), (63, 192), (69, 216), (74, 267), (81, 294), (82, 297), (83, 303),

Gene: Mowgli\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Mowgli\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: MrSmee\_1 Start: 51, Stop: 347, Start Num: 35

Candidate Starts for MrSmee\_1:

(32, 45), (Start: 35 @51 has 7 MA's), (61, 156), (63, 165), (69, 189), (72, 228), (82, 270),

Gene: Mufasa\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for Mufasa\_3:

(Start: 47 @408 has 20 MA's), (Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (69, 513), (75, 567),

Gene: Murucutumbu\_7 Start: 1351, Stop: 1578, Start Num: 54

Candidate Starts for Murucutumbu\_7:

(41, 1297), (Start: 49 @1342 has 21 MA's), (Start: 52 @1348 has 3 MA's), (Start: 54 @1351 has 103 MA's), (61, 1384), (63, 1393), (69, 1417), (75, 1471),

Gene: Mynx\_7 Start: 1402, Stop: 1629, Start Num: 54

Candidate Starts for Mynx\_7:

(41, 1348), (Start: 49 @1393 has 21 MA's), (Start: 52 @1399 has 3 MA's), (Start: 54 @1402 has 103 MA's), (61, 1435), (63, 1444), (69, 1468), (75, 1522),

Gene: Nibb\_6 Start: 1364, Stop: 1591, Start Num: 54

Candidate Starts for Nibb\_6:

(Start: 49 @1355 has 21 MA's), (Start: 54 @1364 has 103 MA's), (69, 1430), (75, 1484),

Gene: Nikao\_3 Start: 636, Stop: 863, Start Num: 54

Candidate Starts for Nikao\_3:

(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),

Gene: Niklas\_7 Start: 1449, Stop: 1676, Start Num: 54

Candidate Starts for Niklas\_7:

(Start: 49 @1440 has 21 MA's), (Start: 54 @1449 has 103 MA's), (63, 1491), (69, 1515), (75, 1569),

Gene: Nutello\_3 Start: 636, Stop: 863, Start Num: 54

Candidate Starts for Nutello\_3:

(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),



Gene: OctaviousRex\_1 Start: 43, Stop: 387, Start Num: 23  
Candidate Starts for OctaviousRex\_1:  
(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: OkiRoe\_5 Start: 1107, Stop: 1334, Start Num: 54  
Candidate Starts for OkiRoe\_5:  
(Start: 54 @1107 has 103 MA's), (60, 1137), (63, 1149), (69, 1173), (75, 1227),

Gene: Olga\_1 Start: 46, Stop: 387, Start Num: 25  
Candidate Starts for Olga\_1:  
(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: OmniCritical\_8 Start: 2221, Stop: 2493, Start Num: 47  
Candidate Starts for OmniCritical\_8:  
(Start: 23 @2134 has 38 MA's), (Start: 31 @2158 has 2 MA's), (Start: 47 @2221 has 20 MA's), (60, 2290), (61, 2293), (65, 2314), (70, 2356), (87, 2440),

Gene: Omnicron\_5 Start: 1158, Stop: 1394, Start Num: 50  
Candidate Starts for Omnicron\_5:  
(Start: 50 @1158 has 3 MA's), (51, 1161), (Start: 54 @1167 has 103 MA's), (69, 1233), (72, 1272), (75, 1287), (84, 1329),

Gene: Oscar\_6 Start: 1262, Stop: 1498, Start Num: 49  
Candidate Starts for Oscar\_6:  
(Start: 49 @1262 has 21 MA's), (Start: 54 @1271 has 103 MA's), (69, 1337), (75, 1391),

Gene: Pace1224\_1 Start: 52, Stop: 387, Start Num: 29  
Candidate Starts for Pace1224\_1:  
(Start: 29 @52 has 5 MA's), (39, 79), (69, 214), (70, 244),

Gene: Padfoot\_7 Start: 1417, Stop: 1653, Start Num: 49  
Candidate Starts for Padfoot\_7:  
(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Padpat\_7 Start: 1382, Stop: 1609, Start Num: 54  
Candidate Starts for Padpat\_7:  
(41, 1328), (Start: 49 @1373 has 21 MA's), (Start: 52 @1379 has 3 MA's), (Start: 54 @1382 has 103 MA's), (61, 1415), (63, 1424), (69, 1448), (75, 1502),

Gene: Paito\_1 Start: 47, Stop: 382, Start Num: 28  
Candidate Starts for Paito\_1:  
(Start: 28 @47 has 2 MA's), (37, 62), (60, 173), (69, 209), (71, 242),

Gene: Paola\_5 Start: 1106, Stop: 1333, Start Num: 54  
Candidate Starts for Paola\_5:  
(Start: 54 @1106 has 103 MA's), (60, 1136), (63, 1148), (69, 1172), (75, 1226),

Gene: Patt\_8 Start: 2153, Stop: 2425, Start Num: 47  
Candidate Starts for Patt\_8:  
(Start: 23 @2066 has 38 MA's), (Start: 31 @2090 has 2 MA's), (Start: 47 @2153 has 20 MA's), (60, 2222), (61, 2225), (62, 2228), (65, 2246), (70, 2288), (87, 2372),

Gene: Peanam\_7 Start: 1440, Stop: 1676, Start Num: 49

Candidate Starts for Peanam\_7:

(Start: 49 @1440 has 21 MA's), (Start: 54 @1449 has 103 MA's), (63, 1491), (69, 1515), (75, 1569),

Gene: Peeb\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Peeb\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Peel\_7 Start: 1417, Stop: 1653, Start Num: 49

Candidate Starts for Peel\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Periodt\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Periodt\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Pharb\_6 Start: 1077, Stop: 1304, Start Num: 54

Candidate Starts for Pharb\_6:

(Start: 46 @1047 has 2 MA's), (Start: 54 @1077 has 103 MA's), (62, 1113), (63, 1119), (69, 1143), (75, 1197), (81, 1221),

Gene: PhelpsODU\_6 Start: 1317, Stop: 1565, Start Num: 53

Candidate Starts for PhelpsODU\_6:

(Start: 46 @1287 has 2 MA's), (Start: 53 @1317 has 21 MA's), (63, 1380), (65, 1392), (75, 1458),

Gene: Phish\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Phish\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Phrank\_6 Start: 1283, Stop: 1531, Start Num: 53

Candidate Starts for Phrank\_6:

(Start: 46 @1253 has 2 MA's), (Start: 53 @1283 has 21 MA's), (63, 1346), (65, 1358), (75, 1424),

Gene: Phreak\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Phreak\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Piatt\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Piatt\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: PinkYoshi\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for PinkYoshi\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Pinnie\_2 Start: 520, Stop: 846, Start Num: 29

Candidate Starts for Pinnie\_2:

(8, 322), (Start: 29 @520 has 5 MA's), (39, 547), (56, 613), (60, 646), (63, 658), (73, 724), (77, 742), (79, 748),

Gene: Pitbull\_1 Start: 61, Stop: 360, Start Num: 35

Candidate Starts for Pitbull\_1:

(34, 58), (Start: 35 @61 has 7 MA's), (40, 79), (44, 88), (70, 235), (72, 244), (74, 256), (75, 259),

Gene: Pixie\_6 Start: 1028, Stop: 1255, Start Num: 54

Candidate Starts for Pixie\_6:

(Start: 46 @998 has 2 MA's), (Start: 54 @1028 has 103 MA's), (61, 1061), (62, 1064), (63, 1070), (72, 1133), (75, 1148), (81, 1172),

Gene: Plagueis\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Plagueis\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Pokerus\_6 Start: 1336, Stop: 1563, Start Num: 54

Candidate Starts for Pokerus\_6:

(41, 1282), (Start: 49 @1327 has 21 MA's), (Start: 52 @1333 has 3 MA's), (Start: 54 @1336 has 103 MA's), (61, 1369), (63, 1378), (69, 1402), (75, 1456),

Gene: Prithvi\_7 Start: 1351, Stop: 1578, Start Num: 54

Candidate Starts for Prithvi\_7:

(Start: 49 @1342 has 21 MA's), (Start: 54 @1351 has 103 MA's), (63, 1393), (69, 1417), (75, 1471),

Gene: QuincyRose\_6 Start: 1393, Stop: 1629, Start Num: 49

Candidate Starts for QuincyRose\_6:

(41, 1348), (Start: 49 @1393 has 21 MA's), (Start: 52 @1399 has 3 MA's), (Start: 54 @1402 has 103 MA's), (61, 1435), (63, 1444), (69, 1468), (75, 1522),

Gene: Rabbs\_1 Start: 44, Stop: 388, Start Num: 23

Candidate Starts for Rabbs\_1:

(Start: 23 @44 has 38 MA's), (Start: 25 @47 has 20 MA's), (56, 149), (69, 218), (74, 269),

Gene: Ramen\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for Ramen\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Rando14\_5 Start: 1196, Stop: 1423, Start Num: 54

Candidate Starts for Rando14\_5:

(Start: 50 @1187 has 3 MA's), (51, 1190), (Start: 54 @1196 has 103 MA's), (69, 1262), (72, 1301), (75, 1316), (84, 1358),

Gene: Rapunzel97\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for Rapunzel97\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Raqqa\_2 Start: 745, Stop: 1044, Start Num: 35

Candidate Starts for Raqqa\_2:

(Start: 30 @736 has 1 MA's), (Start: 35 @745 has 7 MA's), (44, 769), (61, 853), (62, 856), (63, 862),

Gene: Remy19\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Remy19\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Renaissance\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Renaissance\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Reptar3000\_8 Start: 2152, Stop: 2424, Start Num: 47

Candidate Starts for Reptar3000\_8:

(Start: 23 @2065 has 38 MA's), (Start: 31 @2089 has 2 MA's), (Start: 47 @2152 has 20 MA's), (60, 2221), (61, 2224), (62, 2227), (65, 2245), (70, 2287), (87, 2371),

Gene: Rosmarinus\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Rosmarinus\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Ruthiejr\_7 Start: 1960, Stop: 2229, Start Num: 47

Candidate Starts for Ruthiejr\_7:

(Start: 47 @1960 has 20 MA's), (60, 2026), (61, 2029), (65, 2050), (70, 2092), (87, 2176),

Gene: SamScheppers\_6 Start: 1831, Stop: 2103, Start Num: 47

Candidate Starts for SamScheppers\_6:

(Start: 23 @1744 has 38 MA's), (Start: 31 @1768 has 2 MA's), (Start: 47 @1831 has 20 MA's), (60, 1900), (61, 1903), (65, 1924), (70, 1966), (87, 2050),

Gene: SamuelLPlaqson\_7 Start: 1355, Stop: 1582, Start Num: 54

Candidate Starts for SamuelLPlaqson\_7:

(41, 1304), (Start: 49 @1346 has 21 MA's), (Start: 54 @1355 has 103 MA's), (63, 1397), (69, 1421), (75, 1475),

Gene: Sarge\_1 Start: 49, Stop: 357, Start Num: 31

Candidate Starts for Sarge\_1:

(Start: 25 @28 has 20 MA's), (Start: 31 @49 has 2 MA's), (44, 85), (57, 142), (82, 277),

Gene: Scarlett\_6 Start: 1261, Stop: 1497, Start Num: 49

Candidate Starts for Scarlett\_6:

(Start: 49 @1261 has 21 MA's), (Start: 54 @1270 has 103 MA's), (69, 1336), (75, 1390),

Gene: Schiebel\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Schiebel\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: SgtBeansprout\_3 Start: 636, Stop: 863, Start Num: 54

Candidate Starts for SgtBeansprout\_3:

(Start: 49 @627 has 21 MA's), (Start: 54 @636 has 103 MA's), (63, 678), (64, 684), (69, 702), (75, 756), (82, 783),

Gene: ShaboiShabazz\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for ShaboiShabazz\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Shadow1\_5 Start: 1191, Stop: 1439, Start Num: 53

Candidate Starts for Shadow1\_5:

(Start: 46 @1161 has 2 MA's), (Start: 53 @1191 has 21 MA's), (60, 1242), (63, 1254), (65, 1266), (75, 1332),

Gene: Shaobing\_7 Start: 1449, Stop: 1676, Start Num: 54

Candidate Starts for Shaobing\_7:

(Start: 49 @1440 has 21 MA's), (Start: 54 @1449 has 103 MA's), (63, 1491), (69, 1515), (75, 1569),

Gene: ShedlockHolmes\_6 Start: 1277, Stop: 1504, Start Num: 54

Candidate Starts for ShedlockHolmes\_6:

(Start: 46 @1247 has 2 MA's), (Start: 54 @1277 has 103 MA's), (61, 1310), (62, 1313), (63, 1319), (72, 1382), (75, 1397), (81, 1421),

Gene: ShiaSurprise\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for ShiaSurprise\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: SirPhilip\_6 Start: 1153, Stop: 1398, Start Num: 53

Candidate Starts for SirPhilip\_6:

(48, 1144), (Start: 53 @1153 has 21 MA's), (63, 1213), (75, 1291), (83, 1324),

Gene: Sizemore\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Sizemore\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Slarp\_8 Start: 2234, Stop: 2506, Start Num: 47

Candidate Starts for Slarp\_8:

(Start: 23 @2147 has 38 MA's), (Start: 31 @2171 has 2 MA's), (Start: 47 @2234 has 20 MA's), (60, 2303), (61, 2306), (65, 2327), (70, 2369), (87, 2453),

Gene: Slimphazie\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for Slimphazie\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Sneeze\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Sneeze\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: SoSeph\_5 Start: 1127, Stop: 1354, Start Num: 54

Candidate Starts for SoSeph\_5:

(Start: 54 @1127 has 103 MA's), (60, 1157), (63, 1169), (69, 1193), (75, 1247),

Gene: Spock\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Spock\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Stargaze\_1 Start: 52, Stop: 372, Start Num: 29

Candidate Starts for Stargaze\_1:

(Start: 29 @52 has 5 MA's), (56, 136), (63, 181), (69, 205), (74, 256), (86, 310),

Gene: Stinson\_7 Start: 1348, Stop: 1584, Start Num: 49

Candidate Starts for Stinson\_7:

(41, 1303), (Start: 49 @1348 has 21 MA's), (Start: 52 @1354 has 3 MA's), (Start: 54 @1357 has 103 MA's), (61, 1390), (63, 1399), (69, 1423), (75, 1477),

Gene: Strobilo\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for Strobilo\_3:

(Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (75, 567),

Gene: Sulley\_7 Start: 1364, Stop: 1591, Start Num: 54

Candidate Starts for Sulley\_7:

(38, 1304), (Start: 49 @1355 has 21 MA's), (Start: 54 @1364 has 103 MA's), (63, 1406), (69, 1430), (75, 1484),

Gene: Sunflower1121\_5 Start: 1190, Stop: 1438, Start Num: 53

Candidate Starts for Sunflower1121\_5:

(Start: 46 @1160 has 2 MA's), (Start: 53 @1190 has 21 MA's), (60, 1241), (63, 1253), (65, 1265), (75, 1331),

Gene: Sweets\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for Sweets\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: Syra333\_6 Start: 1295, Stop: 1543, Start Num: 53

Candidate Starts for Syra333\_6:

(Start: 46 @1265 has 2 MA's), (Start: 53 @1295 has 21 MA's), (60, 1346), (63, 1358), (65, 1370), (75, 1436),

Gene: TBond007\_6 Start: 997, Stop: 1254, Start Num: 46

Candidate Starts for TBond007\_6:

(Start: 46 @997 has 2 MA's), (Start: 54 @1027 has 103 MA's), (61, 1060), (62, 1063), (63, 1069), (72, 1132), (75, 1147), (81, 1171),

Gene: TClif\_6 Start: 1251, Stop: 1478, Start Num: 54

Candidate Starts for TClif\_6:

(Start: 46 @1221 has 2 MA's), (Start: 54 @1251 has 103 MA's), (63, 1293), (69, 1317), (75, 1371),

Gene: TM4\_3 Start: 438, Stop: 689, Start Num: 53

Candidate Starts for TM4\_3:

(16, 231), (Start: 53 @438 has 21 MA's), (63, 501), (65, 513), (75, 579),

Gene: Tachez\_7 Start: 1345, Stop: 1572, Start Num: 54

Candidate Starts for Tachez\_7:

(41, 1291), (Start: 49 @1336 has 21 MA's), (Start: 52 @1342 has 3 MA's), (Start: 54 @1345 has 103 MA's), (61, 1378), (63, 1387), (69, 1411), (75, 1465),

Gene: Taheera\_1 Start: 47, Stop: 391, Start Num: 25

Candidate Starts for Taheera\_1:

(Start: 25 @47 has 20 MA's), (56, 149), (69, 218),

Gene: TaiwanKao\_7 Start: 1351, Stop: 1578, Start Num: 54

Candidate Starts for TaiwanKao\_7:

(41, 1297), (Start: 49 @1342 has 21 MA's), (Start: 54 @1351 has 103 MA's), (63, 1393), (69, 1417), (75, 1471),

Gene: Taquito\_6 Start: 1832, Stop: 2104, Start Num: 47

Candidate Starts for Taquito\_6:

(Start: 23 @1745 has 38 MA's), (Start: 31 @1769 has 2 MA's), (Start: 47 @1832 has 20 MA's), (60, 1901), (61, 1904), (65, 1925), (70, 1967), (87, 2051),

Gene: Terror\_1 Start: 47, Stop: 391, Start Num: 25

Candidate Starts for Terror\_1:

(Start: 25 @47 has 20 MA's), (56, 149), (69, 218),

Gene: Thyatira\_5 Start: 1105, Stop: 1332, Start Num: 54

Candidate Starts for Thyatira\_5:

(19, 922), (20, 934), (21, 973), (24, 1003), (Start: 50 @1096 has 3 MA's), (51, 1099), (Start: 54 @1105 has 103 MA's), (69, 1171), (72, 1210), (75, 1225),

Gene: Tierra\_6 Start: 1285, Stop: 1533, Start Num: 53

Candidate Starts for Tierra\_6:

(Start: 46 @1255 has 2 MA's), (Start: 53 @1285 has 21 MA's), (63, 1348), (65, 1360), (75, 1426),

Gene: TiniBug\_7 Start: 1355, Stop: 1582, Start Num: 54

Candidate Starts for TiniBug\_7:

(41, 1304), (Start: 49 @1346 has 21 MA's), (Start: 54 @1355 has 103 MA's), (63, 1397), (69, 1421), (75, 1475),

Gene: Tiri\_7 Start: 1393, Stop: 1620, Start Num: 54

Candidate Starts for Tiri\_7:

(41, 1339), (Start: 49 @1384 has 21 MA's), (Start: 52 @1390 has 3 MA's), (Start: 54 @1393 has 103 MA's), (61, 1426), (63, 1435), (69, 1459), (75, 1513),

Gene: TomBrady\_1 Start: 44, Stop: 388, Start Num: 23

Candidate Starts for TomBrady\_1:

(Start: 23 @44 has 38 MA's), (Start: 25 @47 has 20 MA's), (56, 149), (69, 218), (74, 269),

Gene: Topper\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Topper\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: TreyKay\_7 Start: 1351, Stop: 1578, Start Num: 54

Candidate Starts for TreyKay\_7:

(Start: 49 @1342 has 21 MA's), (Start: 54 @1351 has 103 MA's), (63, 1393), (69, 1417), (75, 1471),

Gene: TribbleTrouble\_5 Start: 1095, Stop: 1322, Start Num: 54

Candidate Starts for TribbleTrouble\_5:

(Start: 46 @1065 has 2 MA's), (Start: 54 @1095 has 103 MA's), (62, 1131), (63, 1137), (75, 1215), (81, 1239),

Gene: TruffulaTree\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for TruffulaTree\_7:

(41, 1322), (Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Twitch\_7 Start: 1417, Stop: 1653, Start Num: 49

Candidate Starts for Twitch\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Unicorn\_6 Start: 1317, Stop: 1565, Start Num: 53

Candidate Starts for Unicorn\_6:

(Start: 46 @1287 has 2 MA's), (Start: 53 @1317 has 21 MA's), (63, 1380), (65, 1392), (75, 1458),

Gene: Urkel\_7 Start: 1355, Stop: 1582, Start Num: 54

Candidate Starts for Urkel\_7:

(41, 1304), (Start: 49 @1346 has 21 MA's), (Start: 54 @1355 has 103 MA's), (63, 1397), (69, 1421), (75, 1475),

Gene: Validus\_7 Start: 1356, Stop: 1592, Start Num: 49

Candidate Starts for Validus\_7:

(Start: 49 @1356 has 21 MA's), (Start: 54 @1365 has 103 MA's), (63, 1407), (69, 1431), (75, 1485),

Gene: Veliki\_7 Start: 1426, Stop: 1653, Start Num: 54

Candidate Starts for Veliki\_7:

(41, 1372), (Start: 49 @1417 has 21 MA's), (Start: 52 @1423 has 3 MA's), (Start: 54 @1426 has 103 MA's), (61, 1459), (63, 1468), (69, 1492), (75, 1546),

Gene: Waterfoul\_5 Start: 1127, Stop: 1354, Start Num: 54

Candidate Starts for Waterfoul\_5:

(Start: 54 @1127 has 103 MA's), (60, 1157), (63, 1169), (69, 1193), (75, 1247),

Gene: Wintermute\_8 Start: 2220, Stop: 2492, Start Num: 47

Candidate Starts for Wintermute\_8:

(Start: 23 @2133 has 38 MA's), (Start: 31 @2157 has 2 MA's), (Start: 47 @2220 has 20 MA's), (60, 2289), (61, 2292), (65, 2313), (87, 2439),

Gene: Ximenita\_7 Start: 1459, Stop: 1707, Start Num: 53

Candidate Starts for Ximenita\_7:

(Start: 46 @1429 has 2 MA's), (Start: 53 @1459 has 21 MA's), (63, 1522), (65, 1534), (75, 1600),

Gene: Y10\_08 Start: 2221, Stop: 2493, Start Num: 47

Candidate Starts for Y10\_08:

(Start: 23 @2134 has 38 MA's), (Start: 31 @2158 has 2 MA's), (Start: 47 @2221 has 20 MA's), (60, 2290), (61, 2293), (65, 2314), (70, 2356), (87, 2440),

Gene: Y2\_08 Start: 2221, Stop: 2493, Start Num: 47

Candidate Starts for Y2\_08:

(Start: 23 @2134 has 38 MA's), (Start: 31 @2158 has 2 MA's), (Start: 47 @2221 has 20 MA's), (60, 2290), (61, 2293), (65, 2314), (70, 2356), (87, 2440),

Gene: YoureAdopted\_6 Start: 1352, Stop: 1579, Start Num: 54

Candidate Starts for YoureAdopted\_6:

(41, 1298), (Start: 49 @1343 has 21 MA's), (Start: 52 @1349 has 3 MA's), (Start: 54 @1352 has 103 MA's), (61, 1385), (63, 1394), (69, 1418), (75, 1472),

Gene: Yuna\_7 Start: 1452, Stop: 1679, Start Num: 54

Candidate Starts for Yuna\_7:

(Start: 54 @1452 has 103 MA's), (63, 1494), (69, 1518), (75, 1572),



Gene: Yunkel11\_7 Start: 1376, Stop: 1603, Start Num: 54

Candidate Starts for Yunkel11\_7:

(38, 1313), (Start: 49 @1367 has 21 MA's), (Start: 54 @1376 has 103 MA's), (69, 1442), (75, 1496),

Gene: Zabiza\_7 Start: 1373, Stop: 1603, Start Num: 52

Candidate Starts for Zabiza\_7:

(Start: 49 @1367 has 21 MA's), (Start: 52 @1373 has 3 MA's), (Start: 54 @1376 has 103 MA's), (61, 1409), (63, 1418), (69, 1442), (75, 1496),

Gene: Zavala\_7 Start: 1352, Stop: 1588, Start Num: 49

Candidate Starts for Zavala\_7:

(41, 1307), (Start: 49 @1352 has 21 MA's), (Start: 52 @1358 has 3 MA's), (Start: 54 @1361 has 103 MA's), (61, 1394), (63, 1403), (69, 1427), (75, 1481),

Gene: ZoMa\_1 Start: 46, Stop: 387, Start Num: 25

Candidate Starts for ZoMa\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),

Gene: ZoeJ\_3 Start: 426, Stop: 674, Start Num: 53

Candidate Starts for ZoeJ\_3:

(Start: 53 @426 has 21 MA's), (63, 489), (65, 501), (69, 513), (75, 567),

Gene: Zombie\_1 Start: 43, Stop: 387, Start Num: 23

Candidate Starts for Zombie\_1:

(Start: 23 @43 has 38 MA's), (Start: 25 @46 has 20 MA's), (56, 148), (69, 217), (74, 268),