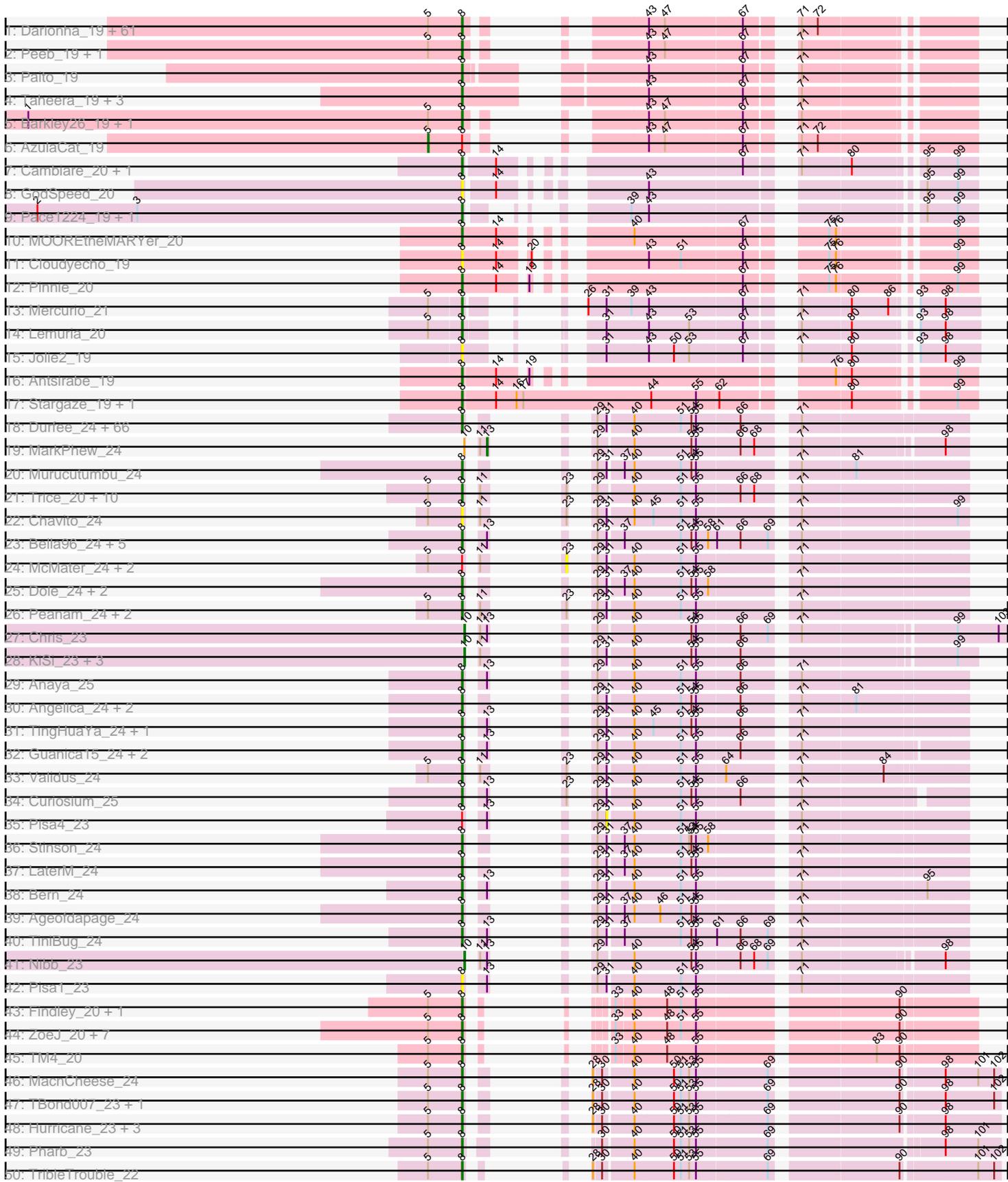
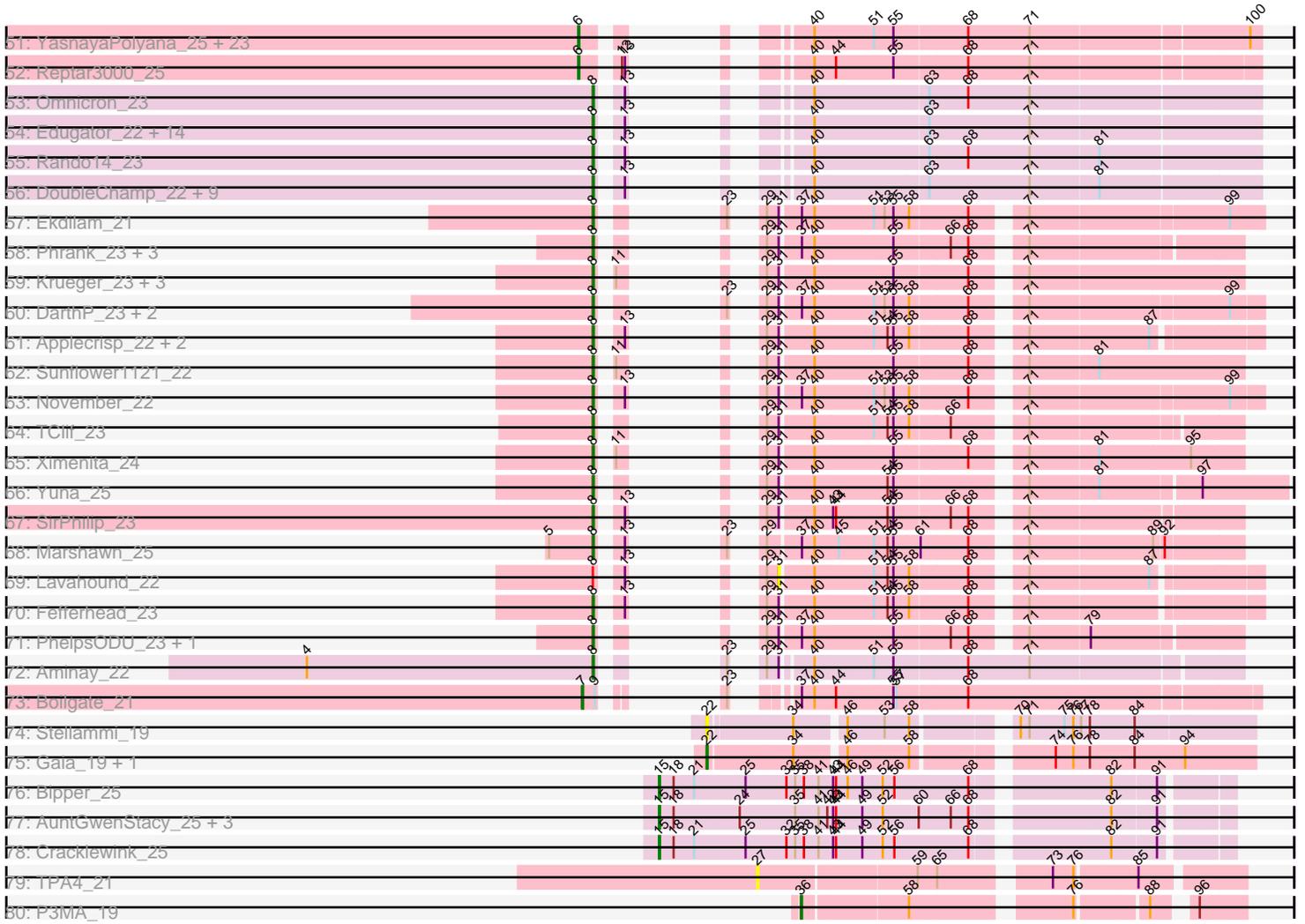


Pham 283410



Pham 283410



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 283410 Report

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

Pham number 283410 has 317 members, 39 are drafts.

Phages represented in each track:

- Track 1 : Darionha\_19, Crespo\_19, PinkYoshi\_19, Jeilious\_19, Frosty24\_19, CLED96\_19, Gomashi\_19, Richarlison\_19, DingDing\_19, LouisV14\_19, Jolene\_19, Jane\_19, BQuat\_19, Remy19\_19, AizenPogi\_19, Phloodle\_19, Angel\_19, Ruriko\_19, Coleslaw\_19, Sweets\_19, Kasen3\_19, ECartman\_19, OctaviousRex\_19, Halo\_19, TinaBug\_19, Wendigo\_19, DNAIII\_0019, Cherrybomb426\_19, ZoMa\_19, Maliketh\_19, Avrafan\_19, TomBrady\_19, Jonghyun\_19, Neoh\_19, Gideon\_19, Schiebel\_19, Sizemore\_19, Olga\_19, Plagueis\_19, Aroostook\_19, Zombie\_19, Hope\_19, Phish\_19, Hotshotbaby7\_19, DMoney\_19, Kareem\_19, Mowgli\_19, Chance64\_19, ShaboiShabazz\_19, BruceB\_19, Periodt\_19, CassieYates\_19, Marmie\_19, Cedasite\_19, Rattrick\_19, Camri\_19, GoldenAsh\_19, JorRay\_19, Renaissance\_19, Annihilator\_19, Phreak\_19, BPs\_19
- Track 2 : Peeb\_19, Liefie\_19
- Track 3 : Paito\_19
- Track 4 : Taheera\_19, Rabbs\_19, Sneeze\_19, Terror\_19
- Track 5 : Barkley26\_19, Grizzly\_19
- Track 6 : AzulaCat\_19
- Track 7 : Cambiare\_20, Avocado\_19
- Track 8 : GodSpeed\_20
- Track 9 : Pace1224\_19, FlagStaff\_19
- Track 10 : MOOREtheMARYer\_20
- Track 11 : Cloudyecho\_19
- Track 12 : Pinnie\_20
- Track 13 : Mercurio\_21
- Track 14 : Lemuria\_20
- Track 15 : Jolie2\_19
- Track 16 : Antsirabe\_19
- Track 17 : Stargaze\_19, YangYin\_19
- Track 18 : Durfee\_24, Piatt\_24, BaghaKamala\_24, Boiii\_24, Slimphazie\_24, CrimD\_24, Joy99\_24, Belladonna\_24, TaiwanKao\_25, CheetoDust\_24, Apocalypse\_24, Peel\_24, Blizzard\_24, Adonis\_24, BarrelRoll\_24, Zavala\_24, HedwigODU\_24, Topper\_24, Dalmuri\_24, Mynx\_24, Inky\_24, JAWS\_24, TreyKay\_24, Asayake\_24, BGIlluviae\_24, Capricorn\_24, Atiba\_24, Jayhawk\_24, Geraldini\_24, CREW\_24, Ganymede\_25, Beezoo\_24, MeaningOfLife\_24, ActinUp\_24, CallaLilly\_24, Padfoot\_24, Veliki\_24, Tachez\_24, Rosmarinus\_24, Jeckyll\_24, LindNT\_24, Padpat\_24, Twitch\_24, Emerson\_24, YoureAdopted\_23, CaseJules\_24, Ramen\_24, Rapunzel97\_24, BEEEST\_24, Zabiza\_24, Tiri\_24, Hyperbowlee\_24, AlishaPH\_24, Jarvi\_24, Homura\_24, MacKat\_24, TruffulaTree\_24,

Clipper\_24, Spock\_24, QuincyRose\_23, Pokerus\_23, ShiaSurprise\_24, Megsy\_24, Lunahalos\_24, Prithvi\_24, Llorens\_24, Adephagia\_24

- Track 19 : MarkPhew\_24
- Track 20 : Murucutumbu\_24
- Track 21 : Trice\_20, Mdavu\_20, Binglebops\_20, Enkosi\_20, Torres\_20, Teejan\_20, Amelie\_20, Nikao\_20, Nutello\_20, SgtBeansprout\_20, LilPharaoh\_20
- Track 22 : Chavito\_24
- Track 23 : Bella96\_24, DrHayes\_24, Anma\_24, DartGoblin\_24, Urkel\_24, SamuelLPlaqson\_24
- Track 24 : McMater\_24, Dartin\_24, Richo\_24
- Track 25 : Dole\_24, Devera\_24, Illumine\_24
- Track 26 : Peanam\_24, Shaobing\_24, Niklas\_24
- Track 27 : Chris\_23
- Track 28 : KiSi\_23, Oscar\_23, LeMond\_23, Scarlett\_23
- Track 29 : Anaya\_25
- Track 30 : Angelica\_24, Sulley\_24, Deby\_24
- Track 31 : TingHuaYa\_24, LastHope\_24
- Track 32 : Guanica15\_24, Yunkel11\_24, Efra2\_24
- Track 33 : Validus\_24
- Track 34 : Curiosium\_25
- Track 35 : Pisa4\_23
- Track 36 : Stinson\_24
- Track 37 : LaterM\_24
- Track 38 : Bern\_24
- Track 39 : Ageofdapage\_24
- Track 40 : TiniBug\_24
- Track 41 : Nibb\_23
- Track 42 : Pisa1\_23
- Track 43 : Findley\_20, Strobilo\_20
- Track 44 : ZoeJ\_20, Doughnut\_20, Milly\_20, DismalStressor\_20, BoostSeason\_20, DismalFunk\_20, Mufasa\_20, Marcoliusprime\_20
- Track 45 : TM4\_20
- Track 46 : MacnCheese\_24
- Track 47 : TBond007\_23, Pixie\_23
- Track 48 : Hurricane\_23, Keshu\_23, Lea83\_23, ShedlockHolmes\_23
- Track 49 : Pharb\_23
- Track 50 : TribbleTrouble\_22
- Track 51 : YasnayaPolyana\_25, Wintermute\_25, Bobquesha\_26, Mitti\_25, Juliette\_25, Eponine\_25, Fionnbharth\_25, Kraw\_25, Chancellor\_25, Lebo14\_25, Qhanda\_26, JF1\_25, OmniCritical\_25, MissDaisy\_25, Y2\_25, Cheetobro\_25, Patt\_25, SamScheppers\_23, DanSyl44\_26, Ruthiejr\_24, Slarp\_25, Malthus\_26, Taquito\_23, Y10\_25
- Track 52 : Reptar3000\_25
- Track 53 : Omnicron\_23
- Track 54 : Edugator\_22, Neighly\_23, Larva\_23, SoSeph\_22, Leston\_22, Paola\_22, Heftyboy\_22, Thyatira\_22, Psycho\_23, Guillsminger\_22, Gengar\_22, Waterfoul\_22, Dadosky\_23, Feyre\_22, AlleyCat\_23
- Track 55 : Rando14\_23
- Track 56 : DoubleChamp\_22, LilDirt\_21, ViviJ\_21, Agent47\_22, Collard\_22, BananenDer11\_22, Kratio\_21, Miryou\_22, InvictusManeo\_22, OkiRoe\_22
- Track 57 : Ekdilam\_21
- Track 58 : Phrank\_23, Tierra\_23, Bryler\_23, Cain\_23
- Track 59 : Krueger\_23, Syra333\_23, Tigress9\_24, Shadow1\_22

- Track 60 : DarthP\_23, Hammy\_23, Amohnition\_23
- Track 61 : Applecrisp\_22, Amgine\_22, Ellie\_21
- Track 62 : Sunflower1121\_22
- Track 63 : November\_22
- Track 64 : TClif\_23
- Track 65 : Ximenita\_24
- Track 66 : Yuna\_25
- Track 67 : SirPhilip\_23
- Track 68 : Marshawn\_25
- Track 69 : Lavahound\_22
- Track 70 : Fefferhead\_23
- Track 71 : PhelpsODU\_23, Unicorn\_23
- Track 72 : Aminay\_22
- Track 73 : Boilgate\_21
- Track 74 : Stellammi\_19
- Track 75 : Gaia\_19, Nebkiss\_20
- Track 76 : Bipper\_25
- Track 77 : AuntGwenStacy\_25, Faiyaz\_25, Hilltopfarm\_25, Typha\_25
- Track 78 : Cracklewink\_25
- Track 79 : TPA4\_21
- Track 80 : P3MA\_19

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

The start number called the most often in the published annotations is 8, it was called in 239 of the 278 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp\_24, Adephegia\_24, Adonis\_24, Agent47\_22, Ageofdapage\_24, AizenPogi\_19, AlishaPH\_24, AlleyCat\_23, Amelie\_20, Amgine\_22, Aminay\_22, Amohnition\_23, Anaya\_25, Angel\_19, Angelica\_24, Anma\_24, Annihilator\_19, Antsirabe\_19, Apocalypse\_24, Applecrisp\_22, Aroostook\_19, Asayake\_24, Atiba\_24, Avocado\_19, Avrafan\_19, BEEST\_24, BGilluviae\_24, BPs\_19, BQuat\_19, BaghaKamala\_24, BananenDer11\_22, Barkley26\_19, BarrelRoll\_24, Beezoo\_24, Bella96\_24, Belladonna\_24, Bern\_24, Biglebops\_20, Blizzard\_24, Boiiii\_24, BoostSeason\_20, BruceB\_19, Bryler\_23, CLED96\_19, CREW\_24, Cain\_23, CallaLilly\_24, Cambiare\_20, Camri\_19, Capricorn\_24, CaseJules\_24, CassieYates\_19, Cedasite\_19, Chance64\_19, Chavito\_24, CheetoDust\_24, Cherrybomb426\_19, Clipper\_24, Cloudyecho\_19, Coleslaw\_19, Collard\_22, Crespo\_19, CrimD\_24, Curiosium\_25, DMoney\_19, DNAlll\_0019, Dadosky\_23, Dalmuri\_24, Darionha\_19, DartGoblin\_24, DarthP\_23, Deby\_24, Devera\_24, DingDing\_19, DismalFunk\_20, DismalStressor\_20, Dole\_24, DoubleChamp\_22, Doughnut\_20, DrHayes\_24, Durfee\_24, ECartman\_19, Edugator\_22, Efra2\_24, Ekdilam\_21, Ellie\_21, Emerson\_24, Enkosi\_20, Fefferhead\_23, Feyre\_22, Findley\_20, FlagStaff\_19, Frosty24\_19, Ganymede\_25, Gengar\_22, Geraldini\_24, Gideon\_19, GodSpeed\_20, GoldenAsh\_19, Gomashi\_19, Grizzly\_19, Guanica15\_24, Guillsminger\_22, Halo\_19, Hammy\_23, HedwigODU\_24, Heftyboy\_22, Homura\_24, Hope\_19, Hotshotbaby7\_19, Hurricane\_23, Hyperbowlee\_24, Illumine\_24, Inky\_24, InvictusManeo\_22, JAWS\_24, Jane\_19, Jarvi\_24, Jayhawk\_24, Jeckyll\_24, Jeilious\_19, Jolene\_19, Jolie2\_19, Jonghyun\_19, JorRay\_19, Joy99\_24, Kareem\_19,

Kasen3\_19, Keshu\_23, Kratio\_21, Krueger\_23, Larva\_23, LastHope\_24, LaterM\_24, Lea83\_23, Lemuria\_20, Leston\_22, Liefie\_19, LilDirt\_21, LilPharaoh\_20, LindNT\_24, Llorens\_24, LouisV14\_19, Lunahalos\_24, MOOREtheMARYer\_20, MacKat\_24, MacnCheese\_24, Maliketh\_19, Marcoliusprime\_20, Marmie\_19, Marshawn\_25, Mdavu\_20, MeaningOfLife\_24, Megsy\_24, Mercurio\_21, Milly\_20, Miryou\_22, Mowgli\_19, Mufasa\_20, Murucutumbu\_24, Mynx\_24, Neighly\_23, Neoh\_19, Nikao\_20, Niklas\_24, November\_22, Nutello\_20, OctaviousRex\_19, OkiRoe\_22, Olga\_19, Omnicron\_23, Pace1224\_19, Padfoot\_24, Padpat\_24, Paito\_19, Paola\_22, Peanam\_24, Peeb\_19, Peel\_24, Periodt\_19, Pharb\_23, PhelpsODU\_23, Phish\_19, Phloodle\_19, Phrank\_23, Phreak\_19, Piatt\_24, PinkYoshi\_19, Pinnie\_20, Pisa1\_23, Pixie\_23, Plagueis\_19, Pokerus\_23, Prithvi\_24, Psycho\_23, QuincyRose\_23, Rabbs\_19, Ramen\_24, Rando14\_23, Rapunzel97\_24, Rattrick\_19, Remy19\_19, Renaissance\_19, Richarlison\_19, Rosmarinus\_24, Ruriko\_19, SamuelLPlaqson\_24, Schiebel\_19, SgtBeansprout\_20, ShaboiShabazz\_19, Shadow1\_22, Shaobing\_24, ShedlockHolmes\_23, ShiaSurprise\_24, SirPhilip\_23, Sizemore\_19, Slimphazie\_24, Sneeze\_19, SoSeph\_22, Spock\_24, Stargaze\_19, Stinson\_24, Strobilo\_20, Sulley\_24, Sunflower1121\_22, Sweets\_19, Syra333\_23, TBond007\_23, TClif\_23, TM4\_20, Tachez\_24, Taheera\_19, TaiwanKao\_25, Teejan\_20, Terror\_19, Thyatira\_22, Tierra\_23, Tigress9\_24, TinaBug\_19, TingHuaYa\_24, TiniBug\_24, Tiri\_24, TomBrady\_19, Topper\_24, Torres\_20, TreyKay\_24, TribbleTrouble\_22, Trice\_20, TruffulaTree\_24, Twitch\_24, Unicorn\_23, Urkel\_24, Validus\_24, Veliki\_24, ViviJ\_21, Waterfoul\_22, Wendigo\_19, Ximenita\_24, YangYin\_19, YoureAdopted\_23, Yuna\_25, Yunkel11\_24, Zabiza\_24, Zavala\_24, ZoMa\_19, ZoeJ\_20, Zombie\_19,

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

- AzulaCat\_19, Dartin\_24, Lavahound\_22, McMater\_24, Pisa4\_23, Richo\_24,

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

- AuntGwenStacy\_25, Bipper\_25, Bobquesha\_26, Boilgate\_21, Chancellor\_25, Cheetobro\_25, Chris\_23, Cracklewink\_25, DanSyl44\_26, Eponine\_25, Faiyaz\_25, Fionnbharth\_25, Gaia\_19, Hilltopfarm\_25, JF1\_25, Juliette\_25, KiSi\_23, Kraw\_25, LeMond\_23, Lebo14\_25, Malthus\_26, MarkPhew\_24, MissDaisy\_25, Mitti\_25, Nebkiss\_20, Nibb\_23, OmniCritical\_25, Oscar\_23, P3MA\_19, Patt\_25, Qhanda\_26, Reptar3000\_25, Ruthiejr\_24, SamScheppers\_23, Scarlett\_23, Slarp\_25, Stellammi\_19, TPA4\_21, Taquito\_23, Typha\_25, Wintermute\_25, Y10\_25, Y2\_25, YasnayaPolyana\_25,

### Summary by start number:

Start 5:

- Found in 109 of 317 ( 34.4% ) of genes in pham
- Manual Annotations of this start: 1 of 278
- Called 0.9% of time when present
- Phage (with cluster) where this start called: AzulaCat\_19 (G1),

Start 6:

- Found in 25 of 317 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 22 of 278
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobquesha\_26 (K4), Chancellor\_25 (K4), Cheetobro\_25 (K4), DanSyl44\_26 (K4), Eponine\_25 (K4), Fionnbharth\_25 (K4), JF1\_25 (K4), Juliette\_25 (K4), Kraw\_25 (K4), Lebo14\_25 (K4), Malthus\_26 (K4), MissDaisy\_25 (K4), Mitti\_25 (K4), OmniCritical\_25 (K4), Patt\_25 (K4), Qhanda\_26

(K4), Reptar3000\_25 (K4), Ruthiejr\_24 (K4), SamScheppers\_23 (K4), Slarp\_25 (K4), Taquito\_23 (K4), Wintermute\_25 (K4), Y10\_25 (K4), Y2\_25 (K4), YasnayaPolyana\_25 (K4),

#### Start 7:

- Found in 1 of 317 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 278
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Boilgate\_21 (K8),

#### Start 8:

- Found in 273 of 317 ( 86.1% ) of genes in pham
- Manual Annotations of this start: 239 of 278
- Called 97.8% of time when present
- Phage (with cluster) where this start called: ActinUp\_24 (K1), Adephagia\_24 (K1), Adonis\_24 (K1), Agent47\_22 (K5), Ageofdapage\_24 (K1), AizenPogi\_19 (G1), AlishaPH\_24 (K1), AlleyCat\_23 (K5), Amelie\_20 (K1), Amgine\_22 (K6), Aminay\_22 (K7), Amohnition\_23 (K6), Anaya\_25 (K1), Angel\_19 (G1), Angelica\_24 (K1), Anma\_24 (K1), Annihilator\_19 (G1), Antsirabe\_19 (G5), Apocalypse\_24 (K1), Applecrisp\_22 (K6), Aroostook\_19 (G1), Asayake\_24 (K1), Atiba\_24 (K1), Avocado\_19 (G2), Avrafan\_19 (G1), BEEST\_24 (K1), BGIluviae\_24 (K1), BPs\_19 (G1), BQuat\_19 (G1), BaghaKamala\_24 (K1), BananenDer11\_22 (K5), Barkley26\_19 (G1), BarrelRoll\_24 (K1), Beezoo\_24 (K1), Bella96\_24 (K1), Belladonna\_24 (K1), Bern\_24 (K1), Binglebops\_20 (K1), Blizzard\_24 (K1), Boiiii\_24 (K1), BoostSeason\_20 (K2), BruceB\_19 (G1), Bryler\_23 (K6), CLED96\_19 (G1), CREW\_24 (K1), Cain\_23 (K6), CallaLilly\_24 (K1), Cambiare\_20 (G2), Camri\_19 (G1), Capricorn\_24 (K1), CaseJules\_24 (K1), CassieYates\_19 (G1), Cedasite\_19 (G1), Chance64\_19 (G1), Chavito\_24 (K1), CheetoDust\_24 (K1), Cherrybomb426\_19 (G1), Clipper\_24 (K1), Cloudyecho\_19 (G3), Coleslaw\_19 (G1), Collard\_22 (K5), Crespo\_19 (G1), CrimD\_24 (K1), Curiosium\_25 (K1), DMoney\_19 (G1), DNAIII\_0019 (G1), Dadosky\_23 (K5), Dalmuri\_24 (K1), Darionha\_19 (G1), DartGoblin\_24 (K1), DarthP\_23 (K6), Deby\_24 (K1), Devera\_24 (K1), DingDing\_19 (G1), DismalFunk\_20 (K2), DismalStressor\_20 (K2), Dole\_24 (K1), DoubleChamp\_22 (K5), Doughnut\_20 (K2), DrHayes\_24 (K1), Durfee\_24 (K1), ECartman\_19 (G1), Edugator\_22 (K5), Efra2\_24 (K1), Ekdilam\_21 (K6), Ellie\_21 (K6), Emerson\_24 (K1), Enkosi\_20 (K1), Fefferhead\_23 (K6), Feyre\_22 (K5), Findley\_20 (K2), FlagStaff\_19 (G2), Frosty24\_19 (G1), Ganymede\_25 (K1), Gengar\_22 (K5), Geraldini\_24 (K1), Gideon\_19 (G1), GodSpeed\_20 (G2), GoldenAsh\_19 (G1), Gomashi\_19 (G1), Grizzly\_19 (G1), Guanica15\_24 (K1), Guillsminger\_22 (K5), Halo\_19 (G1), Hammy\_23 (K6), HedwigODU\_24 (K1), Heftyboy\_22 (K5), Homura\_24 (K1), Hope\_19 (G1), Hotshotbaby7\_19 (G1), Hurricane\_23 (K3), Hyperbowlee\_24 (K1), Illumine\_24 (K1), Inky\_24 (K1), InvictusManeo\_22 (K5), JAWS\_24 (K1), Jane\_19 (G1), Jarvi\_24 (K1), Jayhawk\_24 (K1), Jeckyll\_24 (K1), Jeilious\_19 (G), Jolene\_19 (G1), Jolie2\_19 (G4), Jonghyun\_19 (G1), JorRay\_19 (G1), Joy99\_24 (K1), Kareem\_19 (G1), Kasen3\_19 (G1), Keshu\_23 (K3), Kratio\_21 (K5), Krueger\_23 (K6), Larva\_23 (K5), LastHope\_24 (K1), LaterM\_24 (K1), Lea83\_23 (K3), Lemuria\_20 (G4), Leston\_22 (K5), Liefie\_19 (G1), LilDirt\_21 (K5), LilPharaoh\_20 (K1), LindNT\_24 (K1), Llorens\_24 (K1), LouisV14\_19 (G1), Lunahalos\_24 (K1), MOOREtheMARYer\_20 (G3), MacKat\_24 (K1), MacnCheese\_24 (K3), Maliketh\_19 (G1), Marcoliusprime\_20 (K2), Marmie\_19 (G1), Marshawn\_25 (K6), Mdavu\_20 (K1), MeaningOfLife\_24 (K1), Megsy\_24 (K1), Mercurio\_21 (G4), Milly\_20 (K2), Miryou\_22 (K5), Mowgli\_19 (G1), Mufasa\_20 (K2), Murucutumbu\_24 (K1), Mynx\_24 (K1), Neighly\_23 (K3), Neoh\_19 (G), Nikao\_20 (K1), Niklas\_24 (K1), November\_22 (K6), Nutello\_20 (K1), OctaviousRex\_19 (G1),

OkiRoe\_22 (K5), Olga\_19 (G1), Omnicron\_23 (K5), Pace1224\_19 (G2), Padfoot\_24 (K1), Padpat\_24 (K1), Paito\_19 (G1), Paola\_22 (K5), Peanam\_24 (K1), Peeb\_19 (G1), Peel\_24 (K1), Periodt\_19 (G1), Pharb\_23 (K3), PhelpsODU\_23 (K6), Phish\_19 (G1), Phloodle\_19 (G1), Phrank\_23 (K6), Phreak\_19 (G1), Piatt\_24 (K1), PinkYoshi\_19 (G1), Pinnie\_20 (G3), Pisa1\_23 (K1), Pixie\_23 (K3), Plagueis\_19 (G1), Pokerus\_23 (K1), Prithvi\_24 (K1), Psycho\_23 (K5), QuincyRose\_23 (K1), Rabbs\_19 (G1), Ramen\_24 (K1), Rando14\_23 (K5), Rapunzel97\_24 (K1), Rattrick\_19 (G1), Remy19\_19 (G1), Renaissance\_19 (G1), Richarlison\_19 (G1), Rosmarinus\_24 (K1), Ruriko\_19 (G1), SamuelLPlaqson\_24 (K1), Schiebel\_19 (G1), SgtBeansprout\_20 (K1), ShaboiShabazz\_19 (G1), Shadow1\_22 (K6), Shaobing\_24 (K1), ShedlockHolmes\_23 (K3), ShiaSurprise\_24 (K1), SirPhilip\_23 (K6), Sizemore\_19 (G1), Slimphazie\_24 (K1), Sneeze\_19 (G1), SoSeph\_22 (K5), Spock\_24 (K1), Stargaze\_19 (G5), Stinson\_24 (K1), Strobilo\_20 (K2), Sulley\_24 (K1), Sunflower1121\_22 (K6), Sweets\_19 (G1), Syra333\_23 (K6), TBond007\_23 (K3), TClif\_23 (K6), TM4\_20 (K2), Tachez\_24 (K1), Taheera\_19 (G1), TaiwanKao\_25 (K1), Teejan\_20 (K1), Terror\_19 (G1), Thyatira\_22 (K5), Tierra\_23 (K6), Tigress9\_24 (K6), TinaBug\_19 (G1), TingHuaYa\_24 (K1), TiniBug\_24 (K1), Tiri\_24 (K1), TomBrady\_19 (G1), Topper\_24 (K1), Torres\_20 (K1), TreyKay\_24 (K1), TribbleTrouble\_22 (K3), Trice\_20 (K1), TruffulaTree\_24 (K1), Twitch\_24 (K1), Unicorn\_23 (K6), Urkel\_24 (K1), Validus\_24 (K1), Veliki\_24 (K1), ViviJ\_21 (K5), Waterfoul\_22 (K5), Wendigo\_19 (G1), Ximenita\_24 (K6), YangYin\_19 (G5), YoureAdopted\_23 (K1), Yuna\_25 (K6), Yunkel11\_24 (K1), Zabiza\_24 (K1), Zavala\_24 (K1), ZoMa\_19 (G1), ZoeJ\_20 (K2), Zombie\_19 (G1),

#### Start 10:

- Found in 7 of 317 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 6 of 278
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Chris\_23 (K1), KiSi\_23 (K1), LeMond\_23 (K1), Nibb\_23 (K1), Oscar\_23 (K1), Scarlett\_23 (K1),

#### Start 13:

- Found in 56 of 317 ( 17.7% ) of genes in pham
- Manual Annotations of this start: 1 of 278
- Called 1.8% of time when present
- Phage (with cluster) where this start called: MarkPhew\_24 (K1),

#### Start 15:

- Found in 6 of 317 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 5 of 278
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy\_25 (Y), Bipper\_25 (Y), Cracklewink\_25 (Y), Faiyaz\_25 (Y), Hilltopfarm\_25 (Y), Typha\_25 (Y),

#### Start 22:

- Found in 3 of 317 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 2 of 278
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia\_19 (X), Nebkiss\_20 (X), Stellammi\_19 (UNK),

#### Start 23:

- Found in 27 of 317 ( 8.5% ) of genes in pham

- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Dartin\_24 (K1), McMater\_24 (K1), Richo\_24 (K1),

Start 27:

- Found in 1 of 317 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA4\_21 (singleton),

Start 31:

- Found in 134 of 317 ( 42.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Lavahound\_22 (K6), Pisa4\_23 (K1),

Start 36:

- Found in 1 of 317 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 278
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P3MA\_19 (singleton),

### **Summary by clusters:**

There are 18 clusters represented in this pham: G5, G4, G3, G1, G, K8, singleton, K3, K2, K1, K7, K6, K5, K4, Y, X, UNK, G2,

Info for manual annotations of cluster G1:

- Start number 5 was manually annotated 1 time for cluster G1.
- Start number 8 was manually annotated 61 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 8 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 8 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 8 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

- Start number 8 was manually annotated 2 times for cluster G5.

Info for manual annotations of cluster K1:

- Start number 8 was manually annotated 101 times for cluster K1.
- Start number 10 was manually annotated 6 times for cluster K1.
- Start number 13 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K2:

- Start number 8 was manually annotated 11 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 8 was manually annotated 9 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 6 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 8 was manually annotated 23 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 8 was manually annotated 24 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 8 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 7 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster X:

- Start number 22 was manually annotated 2 times for cluster X.

Info for manual annotations of cluster Y:

- Start number 15 was manually annotated 5 times for cluster Y.

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

Gene: ActinUp\_24 Start: 18923, Stop: 19399, Start Num: 8

Candidate Starts for ActinUp\_24:

(Start: 8 @18923 has 239 MA's), (29, 18956), (31, 18968), (40, 18998), (51, 19058), (54, 19070), (55, 19076), (66, 19130), (71, 19190),

Gene: Adephagia\_24 Start: 18920, Stop: 19396, Start Num: 8

Candidate Starts for Adephagia\_24:

(Start: 8 @18920 has 239 MA's), (29, 18953), (31, 18965), (40, 18995), (51, 19055), (54, 19067), (55, 19073), (66, 19127), (71, 19187),

Gene: Adonis\_24 Start: 18926, Stop: 19402, Start Num: 8

Candidate Starts for Adonis\_24:

(Start: 8 @18926 has 239 MA's), (29, 18959), (31, 18971), (40, 19001), (51, 19061), (54, 19073), (55, 19079), (66, 19133), (71, 19193),

Gene: Agent47\_22 Start: 19364, Stop: 19873, Start Num: 8

Candidate Starts for Agent47\_22:

(Start: 8 @19364 has 239 MA's), (Start: 13 @19379 has 1 MA's), (40, 19433), (63, 19544), (71, 19646), (81, 19715),

Gene: Ageofdapage\_24 Start: 18854, Stop: 19330, Start Num: 8

Candidate Starts for Ageofdapage\_24:

(Start: 8 @18854 has 239 MA's), (29, 18887), (31, 18899), (37, 18917), (40, 18929), (46, 18962), (51, 18989), (54, 19001), (55, 19007), (71, 19121),

Gene: AizenPogi\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for AizenPogi\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: AlishaPH\_24 Start: 18913, Stop: 19389, Start Num: 8

Candidate Starts for AlishaPH\_24:

(Start: 8 @18913 has 239 MA's), (29, 18946), (31, 18958), (40, 18988), (51, 19048), (54, 19060), (55, 19066), (66, 19120), (71, 19180),

Gene: AlleyCat\_23 Start: 19301, Stop: 19810, Start Num: 8

Candidate Starts for AlleyCat\_23:

(Start: 8 @19301 has 239 MA's), (Start: 13 @19316 has 1 MA's), (40, 19370), (63, 19481), (71, 19583),

Gene: Amelie\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Amelie\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: Amgine\_22 Start: 19009, Stop: 19494, Start Num: 8

Candidate Starts for Amgine\_22:

(Start: 8 @19009 has 239 MA's), (Start: 13 @19024 has 1 MA's), (29, 19042), (31, 19054), (40, 19084), (51, 19144), (54, 19156), (55, 19162), (58, 19177), (68, 19234), (71, 19276), (87, 19396),

Gene: Aminay\_22 Start: 19210, Stop: 19692, Start Num: 8

Candidate Starts for Aminay\_22:

(4, 18916), (Start: 8 @19210 has 239 MA's), (23, 19234), (29, 19243), (31, 19255), (40, 19279), (51, 19339), (55, 19357), (68, 19429), (71, 19492),

Gene: Amohnition\_23 Start: 19395, Stop: 19892, Start Num: 8

Candidate Starts for Amohnition\_23:

(Start: 8 @19395 has 239 MA's), (23, 19419), (29, 19428), (31, 19440), (37, 19458), (40, 19470), (51, 19530), (53, 19539), (55, 19548), (58, 19563), (68, 19620), (71, 19662), (99, 19857),

Gene: Anaya\_25 Start: 18939, Stop: 19415, Start Num: 8

Candidate Starts for Anaya\_25:

(Start: 8 @18939 has 239 MA's), (Start: 13 @18954 has 1 MA's), (29, 18972), (40, 19014), (51, 19074), (55, 19092), (66, 19146), (71, 19206),

Gene: Angel\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Angel\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Angelica\_24 Start: 18888, Stop: 19364, Start Num: 8

Candidate Starts for Angelica\_24:

(Start: 8 @18888 has 239 MA's), (29, 18921), (31, 18933), (40, 18963), (51, 19023), (54, 19035), (55, 19041), (66, 19095), (71, 19155), (81, 19224),

Gene: Anma\_24 Start: 18868, Stop: 19344, Start Num: 8

Candidate Starts for Anma\_24:

(Start: 8 @18868 has 239 MA's), (Start: 13 @18883 has 1 MA's), (29, 18901), (31, 18913), (37, 18931), (51, 19003), (54, 19015), (55, 19021), (58, 19036), (61, 19045), (66, 19075), (69, 19111), (71, 19135),

Gene: Annihilator\_19 Start: 18394, Stop: 18855, Start Num: 8

Candidate Starts for Annihilator\_19:

(Start: 5 @18349 has 1 MA's), (Start: 8 @18394 has 239 MA's), (43, 18496), (47, 18517), (67, 18613), (71, 18652), (72, 18673),

Gene: Antsirabe\_19 Start: 18709, Stop: 19239, Start Num: 8

Candidate Starts for Antsirabe\_19:

(Start: 8 @18709 has 239 MA's), (14, 18751), (19, 18781), (76, 19081), (80, 19099), (99, 19213),

Gene: Apocalypse\_24 Start: 18891, Stop: 19367, Start Num: 8

Candidate Starts for Apocalypse\_24:

(Start: 8 @18891 has 239 MA's), (29, 18924), (31, 18936), (40, 18966), (51, 19026), (54, 19038), (55, 19044), (66, 19098), (71, 19158),

Gene: Applecrisp\_22 Start: 19420, Stop: 19908, Start Num: 8

Candidate Starts for Applecrisp\_22:

(Start: 8 @19420 has 239 MA's), (Start: 13 @19435 has 1 MA's), (29, 19453), (31, 19465), (40, 19495), (51, 19555), (54, 19567), (55, 19573), (58, 19588), (68, 19645), (71, 19687), (87, 19807),

Gene: Aroostook\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Aroostook\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Asayake\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Asayake\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Atiba\_24 Start: 18883, Stop: 19359, Start Num: 8

Candidate Starts for Atiba\_24:

(Start: 8 @18883 has 239 MA's), (29, 18916), (31, 18928), (40, 18958), (51, 19018), (54, 19030), (55, 19036), (66, 19090), (71, 19150),

Gene: AuntGwenStacy\_25 Start: 21443, Stop: 21985, Start Num: 15

Candidate Starts for AuntGwenStacy\_25:

(Start: 15 @21443 has 5 MA's), (18, 21458), (24, 21524), (35, 21581), (41, 21605), (42, 21614), (43, 21620), (44, 21623), (49, 21650), (52, 21671), (60, 21707), (66, 21740), (68, 21758), (82, 21878), (91, 21920),

Gene: Avocado\_19 Start: 18653, Stop: 19183, Start Num: 8

Candidate Starts for Avocado\_19:

(Start: 8 @18653 has 239 MA's), (14, 18692), (67, 18938), (71, 18977), (80, 19040), (95, 19118), (99, 19157),

Gene: Avrafan\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Avrafan\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: AzulaCat\_19 Start: 18358, Stop: 18864, Start Num: 5

Candidate Starts for AzulaCat\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: BEEST\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for BEEST\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: BGlluviae\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for BGlluviae\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: BPs\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for BPs\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: BQuat\_19 Start: 18394, Stop: 18855, Start Num: 8

Candidate Starts for BQuat\_19:

(Start: 5 @18349 has 1 MA's), (Start: 8 @18394 has 239 MA's), (43, 18496), (47, 18517), (67, 18613), (71, 18652), (72, 18673),

Gene: BaghaKamala\_24 Start: 18883, Stop: 19359, Start Num: 8

Candidate Starts for BaghaKamala\_24:

(Start: 8 @18883 has 239 MA's), (29, 18916), (31, 18928), (40, 18958), (51, 19018), (54, 19030), (55, 19036), (66, 19090), (71, 19150),

Gene: BananenDer11\_22 Start: 19325, Stop: 19834, Start Num: 8

Candidate Starts for BananenDer11\_22:

(Start: 8 @19325 has 239 MA's), (Start: 13 @19340 has 1 MA's), (40, 19394), (63, 19505), (71, 19607), (81, 19676),

Gene: Barkley26\_19 Start: 18406, Stop: 18867, Start Num: 8

Candidate Starts for Barkley26\_19:

(1, 17833), (Start: 5 @18361 has 1 MA's), (Start: 8 @18406 has 239 MA's), (43, 18508), (47, 18529), (67, 18625), (71, 18664),

Gene: BarrelRoll\_24 Start: 18906, Stop: 19382, Start Num: 8

Candidate Starts for BarrelRoll\_24:

(Start: 8 @18906 has 239 MA's), (29, 18939), (31, 18951), (40, 18981), (51, 19041), (54, 19053), (55, 19059), (66, 19113), (71, 19173),

Gene: Beezoo\_24 Start: 18930, Stop: 19406, Start Num: 8

Candidate Starts for Beezoo\_24:

(Start: 8 @18930 has 239 MA's), (29, 18963), (31, 18975), (40, 19005), (51, 19065), (54, 19077), (55, 19083), (66, 19137), (71, 19197),

Gene: Bella96\_24 Start: 18850, Stop: 19326, Start Num: 8

Candidate Starts for Bella96\_24:

(Start: 8 @18850 has 239 MA's), (Start: 13 @18865 has 1 MA's), (29, 18883), (31, 18895), (37, 18913), (51, 18985), (54, 18997), (55, 19003), (58, 19018), (61, 19027), (66, 19057), (69, 19093), (71, 19117),

Gene: Belladonna\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Belladonna\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Bern\_24 Start: 18878, Stop: 19354, Start Num: 8

Candidate Starts for Bern\_24:

(Start: 8 @18878 has 239 MA's), (Start: 13 @18893 has 1 MA's), (29, 18911), (31, 18923), (40, 18953), (51, 19013), (55, 19031), (71, 19145), (95, 19301),

Gene: Biglebops\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Biglebops\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: Bipper\_25 Start: 21590, Stop: 22132, Start Num: 15

Candidate Starts for Bipper\_25:

(Start: 15 @21590 has 5 MA's), (18, 21605), (21, 21626), (25, 21677), (32, 21719), (35, 21728), (38, 21737), (41, 21752), (43, 21767), (44, 21770), (46, 21782), (49, 21797), (52, 21818), (56, 21830), (68, 21905), (82, 22025), (91, 22067),

Gene: Blizzard\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Blizzard\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Bobquesha\_26 Start: 20155, Stop: 20673, Start Num: 6

Candidate Starts for Bobquesha\_26:

(Start: 6 @20155 has 22 MA's), (40, 20239), (51, 20299), (55, 20317), (68, 20389), (71, 20452), (100, 20662),

Gene: Boiiii\_24 Start: 18956, Stop: 19432, Start Num: 8

Candidate Starts for Boiiii\_24:

(Start: 8 @18956 has 239 MA's), (29, 18989), (31, 19001), (40, 19031), (51, 19091), (54, 19103), (55, 19109), (66, 19163), (71, 19223),

Gene: Boilgate\_21 Start: 19350, Stop: 19856, Start Num: 7

Candidate Starts for Boilgate\_21:

(Start: 7 @19350 has 1 MA's), (9, 19362), (23, 19380), (37, 19410), (40, 19422), (44, 19443), (55, 19500), (57, 19503), (68, 19572),

Gene: BoostSeason\_20 Start: 16808, Stop: 17272, Start Num: 8

Candidate Starts for BoostSeason\_20:

(Start: 5 @16763 has 1 MA's), (Start: 8 @16808 has 239 MA's), (33, 16841), (40, 16862), (48, 16904), (51, 16922), (55, 16940), (90, 17180),

Gene: BruceB\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for BruceB\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Bryler\_23 Start: 18116, Stop: 18589, Start Num: 8

Candidate Starts for Bryler\_23:

(Start: 8 @18116 has 239 MA's), (29, 18149), (31, 18161), (37, 18179), (40, 18191), (55, 18269), (66, 18323), (68, 18341), (71, 18383),

Gene: CLED96\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for CLED96\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: CREW\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for CREW\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Cain\_23 Start: 18104, Stop: 18577, Start Num: 8

Candidate Starts for Cain\_23:

(Start: 8 @18104 has 239 MA's), (29, 18137), (31, 18149), (37, 18167), (40, 18179), (55, 18257), (66, 18311), (68, 18329), (71, 18371),

Gene: CallaLilly\_24 Start: 18877, Stop: 19353, Start Num: 8

Candidate Starts for CallaLilly\_24:

(Start: 8 @18877 has 239 MA's), (29, 18910), (31, 18922), (40, 18952), (51, 19012), (54, 19024), (55, 19030), (66, 19084), (71, 19144),

Gene: Cambiare\_20 Start: 19118, Stop: 19648, Start Num: 8

Candidate Starts for Cambiare\_20:

(Start: 8 @19118 has 239 MA's), (14, 19157), (67, 19403), (71, 19442), (80, 19505), (95, 19583), (99, 19622),

Gene: Camri\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Camri\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Capricorn\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Capricorn\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: CaseJules\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for CaseJules\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: CassieYates\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for CassieYates\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Cedasite\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Cedasite\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Chance64\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Chance64\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Chancellor\_25 Start: 20421, Stop: 20939, Start Num: 6

Candidate Starts for Chancellor\_25:

(Start: 6 @20421 has 22 MA's), (40, 20505), (51, 20565), (55, 20583), (68, 20655), (71, 20718), (100, 20928),

Gene: Chavito\_24 Start: 18290, Stop: 18766, Start Num: 8

Candidate Starts for Chavito\_24:

(Start: 5 @18245 has 1 MA's), (Start: 8 @18290 has 239 MA's), (11, 18296), (23, 18314), (29, 18323), (31, 18335), (40, 18365), (45, 18389), (51, 18425), (55, 18443), (71, 18557), (99, 18752),

Gene: CheetoDust\_24 Start: 18931, Stop: 19407, Start Num: 8

Candidate Starts for CheetoDust\_24:

(Start: 8 @18931 has 239 MA's), (29, 18964), (31, 18976), (40, 19006), (51, 19066), (54, 19078), (55, 19084), (66, 19138), (71, 19198),

Gene: Cheetobro\_25 Start: 20418, Stop: 20936, Start Num: 6

Candidate Starts for Cheetobro\_25:

(Start: 6 @20418 has 22 MA's), (40, 20502), (51, 20562), (55, 20580), (68, 20652), (71, 20715), (100, 20925),

Gene: Cherrybomb426\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Cherrybomb426\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Chris\_23 Start: 18146, Stop: 18661, Start Num: 10

Candidate Starts for Chris\_23:

(Start: 10 @18146 has 6 MA's), (11, 18149), (Start: 13 @18158 has 1 MA's), (29, 18176), (40, 18218), (54, 18290), (55, 18296), (66, 18350), (69, 18386), (71, 18410), (99, 18596), (103, 18650),

Gene: Clipper\_24 Start: 18931, Stop: 19407, Start Num: 8

Candidate Starts for Clipper\_24:

(Start: 8 @18931 has 239 MA's), (29, 18964), (31, 18976), (40, 19006), (51, 19066), (54, 19078), (55, 19084), (66, 19138), (71, 19198),

Gene: Cloudyecho\_19 Start: 18558, Stop: 19091, Start Num: 8

Candidate Starts for Cloudyecho\_19:

(Start: 8 @18558 has 239 MA's), (14, 18603), (20, 18636), (43, 18732), (51, 18774), (67, 18849), (75, 18924), (76, 18933), (99, 19065),

Gene: Coleslaw\_19 Start: 18394, Stop: 18855, Start Num: 8

Candidate Starts for Coleslaw\_19:

(Start: 5 @18349 has 1 MA's), (Start: 8 @18394 has 239 MA's), (43, 18496), (47, 18517), (67, 18613), (71, 18652), (72, 18673),

Gene: Collard\_22 Start: 19325, Stop: 19834, Start Num: 8

Candidate Starts for Collard\_22:

(Start: 8 @19325 has 239 MA's), (Start: 13 @19340 has 1 MA's), (40, 19394), (63, 19505), (71, 19607), (81, 19676),

Gene: Cracklewink\_25 Start: 21590, Stop: 22132, Start Num: 15

Candidate Starts for Cracklewink\_25:

(Start: 15 @21590 has 5 MA's), (18, 21605), (21, 21626), (25, 21677), (32, 21719), (35, 21728), (38, 21737), (41, 21752), (43, 21767), (44, 21770), (49, 21797), (52, 21818), (56, 21830), (68, 21905), (82, 22025), (91, 22067),

Gene: Crespo\_19 Start: 18404, Stop: 18865, Start Num: 8

Candidate Starts for Crespo\_19:

(Start: 5 @18359 has 1 MA's), (Start: 8 @18404 has 239 MA's), (43, 18506), (47, 18527), (67, 18623), (71, 18662), (72, 18683),

Gene: CrimD\_24 Start: 18892, Stop: 19368, Start Num: 8

Candidate Starts for CrimD\_24:

(Start: 8 @18892 has 239 MA's), (29, 18925), (31, 18937), (40, 18967), (51, 19027), (54, 19039), (55, 19045), (66, 19099), (71, 19159),

Gene: Curiosium\_25 Start: 18640, Stop: 19101, Start Num: 8

Candidate Starts for Curiosium\_25:

(Start: 8 @18640 has 239 MA's), (Start: 13 @18655 has 1 MA's), (23, 18664), (29, 18673), (31, 18685), (40, 18715), (51, 18775), (54, 18787), (55, 18793), (66, 18847), (71, 18907),

Gene: DMoney\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for DMoney\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: DNAIII\_0019 Start: 18412, Stop: 18873, Start Num: 8

Candidate Starts for DNAIII\_0019:

(Start: 5 @18367 has 1 MA's), (Start: 8 @18412 has 239 MA's), (43, 18514), (47, 18535), (67, 18631), (71, 18670), (72, 18691),

Gene: Dadosky\_23 Start: 19302, Stop: 19811, Start Num: 8

Candidate Starts for Dadosky\_23:

(Start: 8 @19302 has 239 MA's), (Start: 13 @19317 has 1 MA's), (40, 19371), (63, 19482), (71, 19584),

Gene: Dalmuri\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Dalmuri\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: DanSyl44\_26 Start: 20424, Stop: 20942, Start Num: 6

Candidate Starts for DanSyl44\_26:

(Start: 6 @20424 has 22 MA's), (40, 20508), (51, 20568), (55, 20586), (68, 20658), (71, 20721), (100, 20931),

Gene: Darionha\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Darionha\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: DartGoblin\_24 Start: 18847, Stop: 19323, Start Num: 8

Candidate Starts for DartGoblin\_24:

(Start: 8 @18847 has 239 MA's), (Start: 13 @18862 has 1 MA's), (29, 18880), (31, 18892), (37, 18910), (51, 18982), (54, 18994), (55, 19000), (58, 19015), (61, 19024), (66, 19054), (69, 19090), (71, 19114),

Gene: DarthP\_23 Start: 19344, Stop: 19838, Start Num: 8

Candidate Starts for DarthP\_23:

(Start: 8 @19344 has 239 MA's), (23, 19368), (29, 19377), (31, 19389), (37, 19407), (40, 19419), (51, 19479), (53, 19488), (55, 19497), (58, 19512), (68, 19569), (71, 19611), (99, 19806),

Gene: Dartin\_24 Start: 18304, Stop: 18756, Start Num: 23

Candidate Starts for Dartin\_24:

(Start: 5 @18235 has 1 MA's), (Start: 8 @18280 has 239 MA's), (11, 18286), (23, 18304), (29, 18313), (31, 18325), (40, 18355), (51, 18415), (55, 18433), (71, 18547),

Gene: Deby\_24 Start: 18888, Stop: 19364, Start Num: 8

Candidate Starts for Deby\_24:

(Start: 8 @18888 has 239 MA's), (29, 18921), (31, 18933), (40, 18963), (51, 19023), (54, 19035), (55, 19041), (66, 19095), (71, 19155), (81, 19224),

Gene: Devera\_24 Start: 18935, Stop: 19411, Start Num: 8

Candidate Starts for Devera\_24:

(Start: 8 @18935 has 239 MA's), (29, 18968), (31, 18980), (37, 18998), (40, 19010), (51, 19070), (54, 19082), (55, 19088), (58, 19103), (71, 19202),

Gene: DingDing\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for DingDing\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: DismalFunk\_20 Start: 16782, Stop: 17246, Start Num: 8

Candidate Starts for DismalFunk\_20:

(Start: 5 @16737 has 1 MA's), (Start: 8 @16782 has 239 MA's), (33, 16815), (40, 16836), (48, 16878), (51, 16896), (55, 16914), (90, 17154),

Gene: DismalStressor\_20 Start: 16782, Stop: 17246, Start Num: 8

Candidate Starts for DismalStressor\_20:

(Start: 5 @16737 has 1 MA's), (Start: 8 @16782 has 239 MA's), (33, 16815), (40, 16836), (48, 16878), (51, 16896), (55, 16914), (90, 17154),

Gene: Dole\_24 Start: 18937, Stop: 19413, Start Num: 8

Candidate Starts for Dole\_24:

(Start: 8 @18937 has 239 MA's), (29, 18970), (31, 18982), (37, 19000), (40, 19012), (51, 19072), (54, 19084), (55, 19090), (58, 19105), (71, 19204),

Gene: DoubleChamp\_22 Start: 19325, Stop: 19834, Start Num: 8

Candidate Starts for DoubleChamp\_22:

(Start: 8 @19325 has 239 MA's), (Start: 13 @19340 has 1 MA's), (40, 19394), (63, 19505), (71, 19607), (81, 19676),

Gene: Doughnut\_20 Start: 16802, Stop: 17266, Start Num: 8

Candidate Starts for Doughnut\_20:

(Start: 5 @16757 has 1 MA's), (Start: 8 @16802 has 239 MA's), (33, 16835), (40, 16856), (48, 16898), (51, 16916), (55, 16934), (90, 17174),

Gene: DrHayes\_24 Start: 18868, Stop: 19344, Start Num: 8

Candidate Starts for DrHayes\_24:

(Start: 8 @18868 has 239 MA's), (Start: 13 @18883 has 1 MA's), (29, 18901), (31, 18913), (37, 18931), (51, 19003), (54, 19015), (55, 19021), (58, 19036), (61, 19045), (66, 19075), (69, 19111), (71, 19135),

Gene: Durfee\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Durfee\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: ECartman\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for ECartman\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Edugator\_22 Start: 19301, Stop: 19810, Start Num: 8

Candidate Starts for Edugator\_22:

(Start: 8 @19301 has 239 MA's), (Start: 13 @19316 has 1 MA's), (40, 19370), (63, 19481), (71, 19583),

Gene: Efra2\_24 Start: 18130, Stop: 18600, Start Num: 8

Candidate Starts for Efra2\_24:

(Start: 8 @18130 has 239 MA's), (Start: 13 @18145 has 1 MA's), (29, 18163), (31, 18175), (40, 18205), (51, 18265), (55, 18283), (66, 18337), (71, 18397),

Gene: Ekdilam\_21 Start: 19106, Stop: 19603, Start Num: 8

Candidate Starts for Ekdilam\_21:

(Start: 8 @19106 has 239 MA's), (23, 19130), (29, 19139), (31, 19151), (37, 19169), (40, 19181), (51, 19241), (53, 19250), (55, 19259), (58, 19274), (68, 19331), (71, 19373), (99, 19568),

Gene: Ellie\_21 Start: 19090, Stop: 19578, Start Num: 8

Candidate Starts for Ellie\_21:

(Start: 8 @19090 has 239 MA's), (Start: 13 @19105 has 1 MA's), (29, 19123), (31, 19135), (40, 19165), (51, 19225), (54, 19237), (55, 19243), (58, 19258), (68, 19315), (71, 19357), (87, 19477),

Gene: Emerson\_24 Start: 18914, Stop: 19390, Start Num: 8

Candidate Starts for Emerson\_24:

(Start: 8 @18914 has 239 MA's), (29, 18947), (31, 18959), (40, 18989), (51, 19049), (54, 19061), (55, 19067), (66, 19121), (71, 19181),

Gene: Enkosi\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Enkosi\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: Eponine\_25 Start: 20311, Stop: 20829, Start Num: 6

Candidate Starts for Eponine\_25:

(Start: 6 @20311 has 22 MA's), (40, 20395), (51, 20455), (55, 20473), (68, 20545), (71, 20608), (100, 20818),

Gene: Faiyaz\_25 Start: 21443, Stop: 21985, Start Num: 15

Candidate Starts for Faiyaz\_25:

(Start: 15 @21443 has 5 MA's), (18, 21458), (24, 21524), (35, 21581), (41, 21605), (42, 21614), (43, 21620), (44, 21623), (49, 21650), (52, 21671), (60, 21707), (66, 21740), (68, 21758), (82, 21878), (91, 21920),

Gene: Fefferhead\_23 Start: 19257, Stop: 19745, Start Num: 8

Candidate Starts for Fefferhead\_23:

(Start: 8 @19257 has 239 MA's), (Start: 13 @19272 has 1 MA's), (29, 19290), (31, 19302), (40, 19332), (51, 19392), (54, 19404), (55, 19410), (58, 19425), (68, 19482), (71, 19524),

Gene: Feyre\_22 Start: 19186, Stop: 19695, Start Num: 8

Candidate Starts for Feyre\_22:

(Start: 8 @19186 has 239 MA's), (Start: 13 @19201 has 1 MA's), (40, 19255), (63, 19366), (71, 19468),

Gene: Findley\_20 Start: 16785, Stop: 17249, Start Num: 8

Candidate Starts for Findley\_20:

(Start: 5 @16740 has 1 MA's), (Start: 8 @16785 has 239 MA's), (33, 16818), (40, 16839), (48, 16881), (51, 16899), (55, 16917), (90, 17157),

Gene: Fionnbharth\_25 Start: 20411, Stop: 20929, Start Num: 6

Candidate Starts for Fionnbharth\_25:

(Start: 6 @20411 has 22 MA's), (40, 20495), (51, 20555), (55, 20573), (68, 20645), (71, 20708), (100, 20918),

Gene: FlagStaff\_19 Start: 18575, Stop: 19054, Start Num: 8

Candidate Starts for FlagStaff\_19:

(2, 18014), (3, 18146), (Start: 8 @18575 has 239 MA's), (39, 18671), (43, 18692), (95, 18989), (99, 19028),

Gene: Frosty24\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Frosty24\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Gaia\_19 Start: 17700, Stop: 18209, Start Num: 22

Candidate Starts for Gaia\_19:

(Start: 22 @17700 has 2 MA's), (34, 17784), (46, 17829), (58, 17889), (74, 18009), (76, 18027), (78, 18042), (84, 18087), (94, 18138),

Gene: Ganymede\_25 Start: 18934, Stop: 19410, Start Num: 8

Candidate Starts for Ganymede\_25:

(Start: 8 @18934 has 239 MA's), (29, 18967), (31, 18979), (40, 19009), (51, 19069), (54, 19081), (55, 19087), (66, 19141), (71, 19201),

Gene: Gengar\_22 Start: 19293, Stop: 19802, Start Num: 8

Candidate Starts for Gengar\_22:

(Start: 8 @19293 has 239 MA's), (Start: 13 @19308 has 1 MA's), (40, 19362), (63, 19473), (71, 19575),

Gene: Geraldini\_24 Start: 18930, Stop: 19406, Start Num: 8

Candidate Starts for Geraldini\_24:

(Start: 8 @18930 has 239 MA's), (29, 18963), (31, 18975), (40, 19005), (51, 19065), (54, 19077), (55, 19083), (66, 19137), (71, 19197),

Gene: Gideon\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Gideon\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: GodSpeed\_20 Start: 18557, Stop: 19087, Start Num: 8

Candidate Starts for GodSpeed\_20:

(Start: 8 @18557 has 239 MA's), (14, 18593), (43, 18725), (95, 19022), (99, 19061),

Gene: GoldenAsh\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for GoldenAsh\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Gomashi\_19 Start: 18404, Stop: 18865, Start Num: 8

Candidate Starts for Gomashi\_19:

(Start: 5 @18359 has 1 MA's), (Start: 8 @18404 has 239 MA's), (43, 18506), (47, 18527), (67, 18623), (71, 18662), (72, 18683),

Gene: Grizzly\_19 Start: 18406, Stop: 18867, Start Num: 8

Candidate Starts for Grizzly\_19:

(1, 17833), (Start: 5 @18361 has 1 MA's), (Start: 8 @18406 has 239 MA's), (43, 18508), (47, 18529), (67, 18625), (71, 18664),

Gene: Guanica15\_24 Start: 18146, Stop: 18616, Start Num: 8

Candidate Starts for Guanica15\_24:

(Start: 8 @18146 has 239 MA's), (Start: 13 @18161 has 1 MA's), (29, 18179), (31, 18191), (40, 18221), (51, 18281), (55, 18299), (66, 18353), (71, 18413),

Gene: Guillsminger\_22 Start: 19268, Stop: 19777, Start Num: 8

Candidate Starts for Guillsminger\_22:

(Start: 8 @19268 has 239 MA's), (Start: 13 @19283 has 1 MA's), (40, 19337), (63, 19448), (71, 19550),

Gene: Halo\_19 Start: 18398, Stop: 18859, Start Num: 8

Candidate Starts for Halo\_19:

(Start: 5 @18353 has 1 MA's), (Start: 8 @18398 has 239 MA's), (43, 18500), (47, 18521), (67, 18617), (71, 18656), (72, 18677),

Gene: Hammy\_23 Start: 19338, Stop: 19835, Start Num: 8

Candidate Starts for Hammy\_23:

(Start: 8 @19338 has 239 MA's), (23, 19362), (29, 19371), (31, 19383), (37, 19401), (40, 19413), (51, 19473), (53, 19482), (55, 19491), (58, 19506), (68, 19563), (71, 19605), (99, 19800),

Gene: HedwigODU\_24 Start: 18923, Stop: 19399, Start Num: 8

Candidate Starts for HedwigODU\_24:

(Start: 8 @18923 has 239 MA's), (29, 18956), (31, 18968), (40, 18998), (51, 19058), (54, 19070), (55, 19076), (66, 19130), (71, 19190),

Gene: Heftyboy\_22 Start: 19416, Stop: 19925, Start Num: 8

Candidate Starts for Heftyboy\_22:

(Start: 8 @19416 has 239 MA's), (Start: 13 @19431 has 1 MA's), (40, 19485), (63, 19596), (71, 19698),

Gene: Hilltopfarm\_25 Start: 21473, Stop: 22015, Start Num: 15

Candidate Starts for Hilltopfarm\_25:

(Start: 15 @21473 has 5 MA's), (18, 21488), (24, 21554), (35, 21611), (41, 21635), (42, 21644), (43, 21650), (44, 21653), (49, 21680), (52, 21701), (60, 21737), (66, 21770), (68, 21788), (82, 21908), (91, 21950),

Gene: Homura\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Homura\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Hope\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Hope\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Hotshotbaby7\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Hotshotbaby7\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Hurricane\_23 Start: 19350, Stop: 19862, Start Num: 8

Candidate Starts for Hurricane\_23:

(Start: 5 @19305 has 1 MA's), (Start: 8 @19350 has 239 MA's), (28, 19377), (30, 19386), (40, 19422), (50, 19473), (51, 19482), (53, 19491), (55, 19500), (69, 19590), (90, 19740), (98, 19791),

Gene: Hyperbowlee\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Hyperbowlee\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Illumine\_24 Start: 18937, Stop: 19413, Start Num: 8

Candidate Starts for Illumine\_24:

(Start: 8 @18937 has 239 MA's), (29, 18970), (31, 18982), (37, 19000), (40, 19012), (51, 19072), (54, 19084), (55, 19090), (58, 19105), (71, 19204),

Gene: Inky\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Inky\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: InvictusManeo\_22 Start: 19368, Stop: 19877, Start Num: 8

Candidate Starts for InvictusManeo\_22:

(Start: 8 @19368 has 239 MA's), (Start: 13 @19383 has 1 MA's), (40, 19437), (63, 19548), (71, 19650), (81, 19719),

Gene: JAWS\_24 Start: 18908, Stop: 19384, Start Num: 8

Candidate Starts for JAWS\_24:

(Start: 8 @18908 has 239 MA's), (29, 18941), (31, 18953), (40, 18983), (51, 19043), (54, 19055), (55, 19061), (66, 19115), (71, 19175),

Gene: JF1\_25 Start: 20410, Stop: 20928, Start Num: 6

Candidate Starts for JF1\_25:

(Start: 6 @20410 has 22 MA's), (40, 20494), (51, 20554), (55, 20572), (68, 20644), (71, 20707), (100, 20917),

Gene: Jane\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Jane\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Jarvi\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Jarvi\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Jayhawk\_24 Start: 18921, Stop: 19397, Start Num: 8

Candidate Starts for Jayhawk\_24:

(Start: 8 @18921 has 239 MA's), (29, 18954), (31, 18966), (40, 18996), (51, 19056), (54, 19068), (55, 19074), (66, 19128), (71, 19188),

Gene: Jeckyll\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Jeckyll\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Jeilious\_19 Start: 18402, Stop: 18863, Start Num: 8

Candidate Starts for Jeilious\_19:

(Start: 5 @18357 has 1 MA's), (Start: 8 @18402 has 239 MA's), (43, 18504), (47, 18525), (67, 18621), (71, 18660), (72, 18681),

Gene: Jolene\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Jolene\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Jolie2\_19 Start: 17715, Stop: 18197, Start Num: 8

Candidate Starts for Jolie2\_19:

(Start: 8 @17715 has 239 MA's), (31, 17781), (43, 17835), (50, 17868), (53, 17886), (67, 17952), (71, 17991), (80, 18054), (93, 18120), (98, 18153),

Gene: Jonghyun\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Jonghyun\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: JorRay\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for JorRay\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Joy99\_24 Start: 18883, Stop: 19359, Start Num: 8

Candidate Starts for Joy99\_24:

(Start: 8 @18883 has 239 MA's), (29, 18916), (31, 18928), (40, 18958), (51, 19018), (54, 19030), (55, 19036), (66, 19090), (71, 19150),

Gene: Juliette\_25 Start: 20311, Stop: 20829, Start Num: 6

Candidate Starts for Juliette\_25:

(Start: 6 @20311 has 22 MA's), (40, 20395), (51, 20455), (55, 20473), (68, 20545), (71, 20608), (100, 20818),

Gene: Kareem\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Kareem\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Kasen3\_19 Start: 18404, Stop: 18865, Start Num: 8

Candidate Starts for Kasen3\_19:

(Start: 5 @18359 has 1 MA's), (Start: 8 @18404 has 239 MA's), (43, 18506), (47, 18527), (67, 18623), (71, 18662), (72, 18683),

Gene: Keshu\_23 Start: 19342, Stop: 19854, Start Num: 8

Candidate Starts for Keshu\_23:

(Start: 5 @19297 has 1 MA's), (Start: 8 @19342 has 239 MA's), (28, 19369), (30, 19378), (40, 19414), (50, 19465), (51, 19474), (53, 19483), (55, 19492), (69, 19582), (90, 19732), (98, 19783),

Gene: KiSi\_23 Start: 18086, Stop: 18562, Start Num: 10

Candidate Starts for KiSi\_23:

(Start: 10 @18086 has 6 MA's), (11, 18089), (29, 18116), (31, 18128), (40, 18158), (54, 18230), (55, 18236), (66, 18290), (99, 18536),

Gene: Kratio\_21 Start: 18999, Stop: 19508, Start Num: 8

Candidate Starts for Kratio\_21:

(Start: 8 @18999 has 239 MA's), (Start: 13 @19014 has 1 MA's), (40, 19068), (63, 19179), (71, 19281), (81, 19350),

Gene: Kraw\_25 Start: 20334, Stop: 20852, Start Num: 6

Candidate Starts for Kraw\_25:

(Start: 6 @20334 has 22 MA's), (40, 20418), (51, 20478), (55, 20496), (68, 20568), (71, 20631), (100, 20841),

Gene: Krueger\_23 Start: 18075, Stop: 18557, Start Num: 8

Candidate Starts for Krueger\_23:

(Start: 8 @18075 has 239 MA's), (11, 18081), (29, 18108), (31, 18120), (40, 18150), (55, 18228), (68, 18300), (71, 18342),

Gene: Larva\_23 Start: 19169, Stop: 19678, Start Num: 8

Candidate Starts for Larva\_23:

(Start: 8 @19169 has 239 MA's), (Start: 13 @19184 has 1 MA's), (40, 19238), (63, 19349), (71, 19451),

Gene: LastHope\_24 Start: 18217, Stop: 18693, Start Num: 8

Candidate Starts for LastHope\_24:

(Start: 8 @18217 has 239 MA's), (Start: 13 @18232 has 1 MA's), (29, 18250), (31, 18262), (40, 18292), (45, 18316), (51, 18352), (54, 18364), (55, 18370), (66, 18424), (71, 18484),

Gene: LaterM\_24 Start: 18882, Stop: 19358, Start Num: 8

Candidate Starts for LaterM\_24:

(Start: 8 @18882 has 239 MA's), (29, 18915), (31, 18927), (37, 18945), (40, 18957), (51, 19017), (54, 19029), (55, 19035), (71, 19149),

Gene: Lavahound\_22 Start: 19054, Stop: 19497, Start Num: 31

Candidate Starts for Lavahound\_22:

(Start: 8 @19009 has 239 MA's), (Start: 13 @19024 has 1 MA's), (29, 19042), (31, 19054), (40, 19084), (51, 19144), (54, 19156), (55, 19162), (58, 19177), (68, 19234), (71, 19276), (87, 19396),

Gene: LeMond\_23 Start: 18157, Stop: 18633, Start Num: 10

Candidate Starts for LeMond\_23:

(Start: 10 @18157 has 6 MA's), (11, 18160), (29, 18187), (31, 18199), (40, 18229), (54, 18301), (55, 18307), (66, 18361), (99, 18607),

Gene: Lea83\_23 Start: 19339, Stop: 19842, Start Num: 8

Candidate Starts for Lea83\_23:

(Start: 5 @19294 has 1 MA's), (Start: 8 @19339 has 239 MA's), (28, 19357), (30, 19366), (40, 19402), (50, 19453), (51, 19462), (53, 19471), (55, 19480), (69, 19570), (90, 19720), (98, 19771),

Gene: Lebo14\_25 Start: 20427, Stop: 20945, Start Num: 6

Candidate Starts for Lebo14\_25:

(Start: 6 @20427 has 22 MA's), (40, 20511), (51, 20571), (55, 20589), (68, 20661), (71, 20724), (100, 20934),

Gene: Lemuria\_20 Start: 18526, Stop: 19005, Start Num: 8

Candidate Starts for Lemuria\_20:

(Start: 5 @18484 has 1 MA's), (Start: 8 @18526 has 239 MA's), (31, 18589), (43, 18643), (53, 18694), (67, 18760), (71, 18799), (80, 18862), (93, 18928), (98, 18961),

Gene: Leston\_22 Start: 19398, Stop: 19907, Start Num: 8

Candidate Starts for Leston\_22:

(Start: 8 @19398 has 239 MA's), (Start: 13 @19413 has 1 MA's), (40, 19467), (63, 19578), (71, 19680),

Gene: Liefie\_19 Start: 18402, Stop: 18863, Start Num: 8

Candidate Starts for Liefie\_19:

(Start: 5 @18357 has 1 MA's), (Start: 8 @18402 has 239 MA's), (43, 18504), (47, 18525), (67, 18621), (71, 18660),

Gene: LilDirt\_21 Start: 19125, Stop: 19634, Start Num: 8

Candidate Starts for LilDirt\_21:

(Start: 8 @19125 has 239 MA's), (Start: 13 @19140 has 1 MA's), (40, 19194), (63, 19305), (71, 19407), (81, 19476),

Gene: LilPharaoh\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for LilPharaoh\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: LindNT\_24 Start: 18888, Stop: 19364, Start Num: 8

Candidate Starts for LindNT\_24:

(Start: 8 @18888 has 239 MA's), (29, 18921), (31, 18933), (40, 18963), (51, 19023), (54, 19035), (55, 19041), (66, 19095), (71, 19155),

Gene: Llorens\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Llorens\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: LouisV14\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for LouisV14\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Lunahalos\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Lunahalos\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: MOOREtheMARYer\_20 Start: 18675, Stop: 19208, Start Num: 8

Candidate Starts for MOOREtheMARYer\_20:

(Start: 8 @18675 has 239 MA's), (14, 18720), (40, 18831), (67, 18966), (75, 19041), (76, 19050), (99, 19182),

Gene: MacKat\_24 Start: 18931, Stop: 19407, Start Num: 8

Candidate Starts for MacKat\_24:

(Start: 8 @18931 has 239 MA's), (29, 18964), (31, 18976), (40, 19006), (51, 19066), (54, 19078), (55, 19084), (66, 19138), (71, 19198),

Gene: MacnCheese\_24 Start: 19584, Stop: 20096, Start Num: 8

Candidate Starts for MacnCheese\_24:

(Start: 5 @19539 has 1 MA's), (Start: 8 @19584 has 239 MA's), (28, 19611), (30, 19620), (40, 19656), (50, 19707), (51, 19716), (53, 19725), (55, 19734), (69, 19824), (90, 19974), (98, 20025), (101, 20067), (102, 20088),

Gene: Maliketh\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Maliketh\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Malthus\_26 Start: 20334, Stop: 20852, Start Num: 6

Candidate Starts for Malthus\_26:

(Start: 6 @20334 has 22 MA's), (40, 20418), (51, 20478), (55, 20496), (68, 20568), (71, 20631), (100, 20841),

Gene: Marcoliusprime\_20 Start: 16782, Stop: 17246, Start Num: 8

Candidate Starts for Marcoliusprime\_20:

(Start: 5 @16737 has 1 MA's), (Start: 8 @16782 has 239 MA's), (33, 16815), (40, 16836), (48, 16878), (51, 16896), (55, 16914), (90, 17154),

Gene: MarkPhew\_24 Start: 18066, Stop: 18518, Start Num: 13

Candidate Starts for MarkPhew\_24:

(Start: 10 @18054 has 6 MA's), (11, 18057), (Start: 13 @18066 has 1 MA's), (29, 18084), (40, 18126), (54, 18198), (55, 18204), (66, 18258), (68, 18276), (71, 18318), (98, 18489),

Gene: Marmie\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Marmie\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Marshawn\_25 Start: 18671, Stop: 19147, Start Num: 8

Candidate Starts for Marshawn\_25:

(Start: 5 @18626 has 1 MA's), (Start: 8 @18671 has 239 MA's), (Start: 13 @18686 has 1 MA's), (23, 18695), (29, 18704), (37, 18734), (40, 18746), (45, 18770), (51, 18806), (54, 18818), (55, 18824), (61, 18848), (68, 18896), (71, 18938), (89, 19061), (92, 19070),

Gene: McMater\_24 Start: 18304, Stop: 18756, Start Num: 23

Candidate Starts for McMater\_24:

(Start: 5 @18235 has 1 MA's), (Start: 8 @18280 has 239 MA's), (11, 18286), (23, 18304), (29, 18313), (31, 18325), (40, 18355), (51, 18415), (55, 18433), (71, 18547),

Gene: Mdavu\_20 Start: 18451, Stop: 18927, Start Num: 8

Candidate Starts for Mdavu\_20:

(Start: 5 @18406 has 1 MA's), (Start: 8 @18451 has 239 MA's), (11, 18457), (23, 18475), (29, 18484), (40, 18526), (51, 18586), (55, 18604), (66, 18658), (68, 18676), (71, 18718),

Gene: MeaningOfLife\_24 Start: 18890, Stop: 19366, Start Num: 8

Candidate Starts for MeaningOfLife\_24:

(Start: 8 @18890 has 239 MA's), (29, 18923), (31, 18935), (40, 18965), (51, 19025), (54, 19037), (55, 19043), (66, 19097), (71, 19157),

Gene: Megsy\_24 Start: 18891, Stop: 19367, Start Num: 8

Candidate Starts for Megsy\_24:

(Start: 8 @18891 has 239 MA's), (29, 18924), (31, 18936), (40, 18966), (51, 19026), (54, 19038), (55, 19044), (66, 19098), (71, 19158),

Gene: Mercurio\_21 Start: 19148, Stop: 19627, Start Num: 8

Candidate Starts for Mercurio\_21:

(Start: 5 @19106 has 1 MA's), (Start: 8 @19148 has 239 MA's), (26, 19187), (31, 19211), (39, 19244), (43, 19265), (67, 19382), (71, 19421), (80, 19484), (86, 19532), (93, 19550), (98, 19583),

Gene: Milly\_20 Start: 16782, Stop: 17246, Start Num: 8

Candidate Starts for Milly\_20:

(Start: 5 @16737 has 1 MA's), (Start: 8 @16782 has 239 MA's), (33, 16815), (40, 16836), (48, 16878), (51, 16896), (55, 16914), (90, 17154),

Gene: Miryou\_22 Start: 19253, Stop: 19762, Start Num: 8

Candidate Starts for Miryou\_22:

(Start: 8 @19253 has 239 MA's), (Start: 13 @19268 has 1 MA's), (40, 19322), (63, 19433), (71, 19535), (81, 19604),

Gene: MissDaisy\_25 Start: 20173, Stop: 20691, Start Num: 6

Candidate Starts for MissDaisy\_25:

(Start: 6 @20173 has 22 MA's), (40, 20257), (51, 20317), (55, 20335), (68, 20407), (71, 20470), (100, 20680),

Gene: Mitti\_25 Start: 20334, Stop: 20852, Start Num: 6

Candidate Starts for Mitti\_25:

(Start: 6 @20334 has 22 MA's), (40, 20418), (51, 20478), (55, 20496), (68, 20568), (71, 20631), (100, 20841),

Gene: Mowgli\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Mowgli\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Mufasa\_20 Start: 16802, Stop: 17266, Start Num: 8

Candidate Starts for Mufasa\_20:

(Start: 5 @16757 has 1 MA's), (Start: 8 @16802 has 239 MA's), (33, 16835), (40, 16856), (48, 16898), (51, 16916), (55, 16934), (90, 17174),

Gene: Murucutumbu\_24 Start: 18872, Stop: 19348, Start Num: 8

Candidate Starts for Murucutumbu\_24:

(Start: 8 @18872 has 239 MA's), (29, 18905), (31, 18917), (37, 18935), (40, 18947), (51, 19007), (54, 19019), (55, 19025), (71, 19139), (81, 19208),

Gene: Mynx\_24 Start: 18937, Stop: 19413, Start Num: 8

Candidate Starts for Mynx\_24:

(Start: 8 @18937 has 239 MA's), (29, 18970), (31, 18982), (40, 19012), (51, 19072), (54, 19084), (55, 19090), (66, 19144), (71, 19204),

Gene: Nebkiss\_20 Start: 17701, Stop: 18210, Start Num: 22

Candidate Starts for Nebkiss\_20:

(Start: 22 @17701 has 2 MA's), (34, 17785), (46, 17830), (58, 17890), (74, 18010), (76, 18028), (78, 18043), (84, 18088), (94, 18139),

Gene: Neighly\_23 Start: 19168, Stop: 19677, Start Num: 8

Candidate Starts for Neighly\_23:

(Start: 8 @19168 has 239 MA's), (Start: 13 @19183 has 1 MA's), (40, 19237), (63, 19348), (71, 19450),

Gene: Neoh\_19 Start: 18395, Stop: 18856, Start Num: 8

Candidate Starts for Neoh\_19:

(Start: 5 @18350 has 1 MA's), (Start: 8 @18395 has 239 MA's), (43, 18497), (47, 18518), (67, 18614), (71, 18653), (72, 18674),

Gene: Nibb\_23 Start: 18198, Stop: 18662, Start Num: 10

Candidate Starts for Nibb\_23:

(Start: 10 @18198 has 6 MA's), (11, 18201), (Start: 13 @18210 has 1 MA's), (29, 18228), (40, 18270), (54, 18342), (55, 18348), (66, 18402), (68, 18420), (69, 18438), (71, 18462), (98, 18633),

Gene: Nikao\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Nikao\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: Niklas\_24 Start: 18283, Stop: 18759, Start Num: 8

Candidate Starts for Niklas\_24:

(Start: 5 @18238 has 1 MA's), (Start: 8 @18283 has 239 MA's), (11, 18289), (23, 18307), (29, 18316), (31, 18328), (40, 18358), (51, 18418), (55, 18436), (71, 18550),

Gene: November\_22 Start: 19238, Stop: 19732, Start Num: 8

Candidate Starts for November\_22:

(Start: 8 @19238 has 239 MA's), (Start: 13 @19253 has 1 MA's), (29, 19271), (31, 19283), (37, 19301), (40, 19313), (51, 19373), (53, 19382), (55, 19391), (58, 19406), (68, 19463), (71, 19505), (99, 19700),

Gene: Nutello\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Nutello\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: OctaviousRex\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for OctaviousRex\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: OkiRoe\_22 Start: 19269, Stop: 19778, Start Num: 8

Candidate Starts for OkiRoe\_22:

(Start: 8 @19269 has 239 MA's), (Start: 13 @19284 has 1 MA's), (40, 19338), (63, 19449), (71, 19551), (81, 19620),

Gene: Olga\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Olga\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: OmniCritical\_25 Start: 20319, Stop: 20837, Start Num: 6

Candidate Starts for OmniCritical\_25:

(Start: 6 @20319 has 22 MA's), (40, 20403), (51, 20463), (55, 20481), (68, 20553), (71, 20616), (100, 20826),

Gene: Omnicron\_23 Start: 18088, Stop: 18597, Start Num: 8

Candidate Starts for Omnicron\_23:

(Start: 8 @18088 has 239 MA's), (Start: 13 @18103 has 1 MA's), (40, 18157), (63, 18268), (68, 18307), (71, 18370),

Gene: Oscar\_23 Start: 18158, Stop: 18634, Start Num: 10

Candidate Starts for Oscar\_23:

(Start: 10 @18158 has 6 MA's), (11, 18161), (29, 18188), (31, 18200), (40, 18230), (54, 18302), (55, 18308), (66, 18362), (99, 18608),

Gene: P3MA\_19 Start: 16255, Stop: 16644, Start Num: 36

Candidate Starts for P3MA\_19:

(Start: 36 @16255 has 1 MA's), (58, 16357), (76, 16501), (88, 16567), (96, 16597),

Gene: Pace1224\_19 Start: 18575, Stop: 19054, Start Num: 8

Candidate Starts for Pace1224\_19:

(2, 18014), (3, 18146), (Start: 8 @18575 has 239 MA's), (39, 18671), (43, 18692), (95, 18989), (99, 19028),

Gene: Padfoot\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Padfoot\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Padpat\_24 Start: 18914, Stop: 19390, Start Num: 8

Candidate Starts for Padpat\_24:

(Start: 8 @18914 has 239 MA's), (29, 18947), (31, 18959), (40, 18989), (51, 19049), (54, 19061), (55, 19067), (66, 19121), (71, 19181),

Gene: Paito\_19 Start: 18536, Stop: 19066, Start Num: 8

Candidate Starts for Paito\_19:

(Start: 8 @18536 has 239 MA's), (43, 18707), (67, 18824), (71, 18863),

Gene: Paola\_22 Start: 19268, Stop: 19777, Start Num: 8

Candidate Starts for Paola\_22:

(Start: 8 @19268 has 239 MA's), (Start: 13 @19283 has 1 MA's), (40, 19337), (63, 19448), (71, 19550),

Gene: Patt\_25 Start: 20152, Stop: 20670, Start Num: 6

Candidate Starts for Patt\_25:

(Start: 6 @20152 has 22 MA's), (40, 20236), (51, 20296), (55, 20314), (68, 20386), (71, 20449), (100, 20659),

Gene: Peanam\_24 Start: 18280, Stop: 18756, Start Num: 8

Candidate Starts for Peanam\_24:

(Start: 5 @18235 has 1 MA's), (Start: 8 @18280 has 239 MA's), (11, 18286), (23, 18304), (29, 18313), (31, 18325), (40, 18355), (51, 18415), (55, 18433), (71, 18547),

Gene: Peeb\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Peeb\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661),

Gene: Peel\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Peel\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Periodt\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Periodt\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Pharb\_23 Start: 19190, Stop: 19702, Start Num: 8

Candidate Starts for Pharb\_23:

(Start: 5 @19145 has 1 MA's), (Start: 8 @19190 has 239 MA's), (30, 19229), (40, 19265), (50, 19316), (51, 19325), (53, 19334), (55, 19343), (69, 19433), (98, 19631), (101, 19673),

Gene: PhelpsODU\_23 Start: 18138, Stop: 18611, Start Num: 8

Candidate Starts for PhelpsODU\_23:

(Start: 8 @18138 has 239 MA's), (29, 18171), (31, 18183), (37, 18201), (40, 18213), (55, 18291), (66, 18345), (68, 18363), (71, 18405), (79, 18465),

Gene: Phish\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Phish\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Phloodle\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Phloodle\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Phrank\_23 Start: 18092, Stop: 18565, Start Num: 8

Candidate Starts for Phrank\_23:

(Start: 8 @18092 has 239 MA's), (29, 18125), (31, 18137), (37, 18155), (40, 18167), (55, 18245), (66, 18299), (68, 18317), (71, 18359),

Gene: Phreak\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Phreak\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Piatt\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Piatt\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: PinkYoshi\_19 Start: 18394, Stop: 18855, Start Num: 8

Candidate Starts for PinkYoshi\_19:

(Start: 5 @18349 has 1 MA's), (Start: 8 @18394 has 239 MA's), (43, 18496), (47, 18517), (67, 18613), (71, 18652), (72, 18673),

Gene: Pinnie\_20 Start: 19082, Stop: 19615, Start Num: 8

Candidate Starts for Pinnie\_20:

(Start: 8 @19082 has 239 MA's), (14, 19127), (19, 19157), (67, 19373), (75, 19448), (76, 19457), (99, 19589),

Gene: Pisa1\_23 Start: 18992, Stop: 19468, Start Num: 8

Candidate Starts for Pisa1\_23:

(Start: 8 @18992 has 239 MA's), (Start: 13 @19007 has 1 MA's), (29, 19025), (31, 19037), (40, 19067), (51, 19127), (55, 19145), (71, 19259),

Gene: Pisa4\_23 Start: 19037, Stop: 19468, Start Num: 31

Candidate Starts for Pisa4\_23:

(Start: 8 @18992 has 239 MA's), (Start: 13 @19007 has 1 MA's), (29, 19025), (31, 19037), (40, 19067), (51, 19127), (55, 19145), (71, 19259),

Gene: Pixie\_23 Start: 19121, Stop: 19633, Start Num: 8

Candidate Starts for Pixie\_23:

(Start: 5 @19076 has 1 MA's), (Start: 8 @19121 has 239 MA's), (28, 19148), (30, 19157), (40, 19193), (50, 19244), (51, 19253), (53, 19262), (55, 19271), (69, 19361), (90, 19511), (98, 19562), (102, 19625),

Gene: Plagueis\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Plagueis\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Pokerus\_23 Start: 18871, Stop: 19347, Start Num: 8

Candidate Starts for Pokerus\_23:

(Start: 8 @18871 has 239 MA's), (29, 18904), (31, 18916), (40, 18946), (51, 19006), (54, 19018), (55, 19024), (66, 19078), (71, 19138),

Gene: Prithvi\_24 Start: 18888, Stop: 19364, Start Num: 8

Candidate Starts for Prithvi\_24:

(Start: 8 @18888 has 239 MA's), (29, 18921), (31, 18933), (40, 18963), (51, 19023), (54, 19035), (55, 19041), (66, 19095), (71, 19155),

Gene: Psycho\_23 Start: 19299, Stop: 19808, Start Num: 8

Candidate Starts for Psycho\_23:

(Start: 8 @19299 has 239 MA's), (Start: 13 @19314 has 1 MA's), (40, 19368), (63, 19479), (71, 19581),

Gene: Qhanda\_26 Start: 20430, Stop: 20948, Start Num: 6

Candidate Starts for Qhanda\_26:

(Start: 6 @20430 has 22 MA's), (40, 20514), (51, 20574), (55, 20592), (68, 20664), (71, 20727), (100, 20937),

Gene: QuincyRose\_23 Start: 18934, Stop: 19410, Start Num: 8

Candidate Starts for QuincyRose\_23:

(Start: 8 @18934 has 239 MA's), (29, 18967), (31, 18979), (40, 19009), (51, 19069), (54, 19081), (55, 19087), (66, 19141), (71, 19201),

Gene: Rabbs\_19 Start: 18411, Stop: 18950, Start Num: 8

Candidate Starts for Rabbs\_19:

(Start: 8 @18411 has 239 MA's), (43, 18591), (67, 18708), (71, 18747),

Gene: Ramen\_24 Start: 18920, Stop: 19396, Start Num: 8

Candidate Starts for Ramen\_24:

(Start: 8 @18920 has 239 MA's), (29, 18953), (31, 18965), (40, 18995), (51, 19055), (54, 19067), (55, 19073), (66, 19127), (71, 19187),

Gene: Rando14\_23 Start: 17987, Stop: 18496, Start Num: 8

Candidate Starts for Rando14\_23:

(Start: 8 @17987 has 239 MA's), (Start: 13 @18002 has 1 MA's), (40, 18056), (63, 18167), (68, 18206), (71, 18269), (81, 18338),

Gene: Rapunzel97\_24 Start: 18921, Stop: 19397, Start Num: 8

Candidate Starts for Rapunzel97\_24:

(Start: 8 @18921 has 239 MA's), (29, 18954), (31, 18966), (40, 18996), (51, 19056), (54, 19068), (55, 19074), (66, 19128), (71, 19188),

Gene: Rattrick\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Rattrick\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Remy19\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Remy19\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Renaissance\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Renaissance\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Reptar3000\_25 Start: 20151, Stop: 20666, Start Num: 6

Candidate Starts for Reptar3000\_25:

(Start: 6 @20151 has 22 MA's), (12, 20178), (Start: 13 @20181 has 1 MA's), (40, 20235), (44, 20256), (55, 20313), (68, 20385), (71, 20448),

Gene: Richarlison\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Richarlison\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Richo\_24 Start: 18304, Stop: 18756, Start Num: 23

Candidate Starts for Richo\_24:

(Start: 5 @18235 has 1 MA's), (Start: 8 @18280 has 239 MA's), (11, 18286), (23, 18304), (29, 18313), (31, 18325), (40, 18355), (51, 18415), (55, 18433), (71, 18547),

Gene: Rosmarinus\_24 Start: 18942, Stop: 19418, Start Num: 8

Candidate Starts for Rosmarinus\_24:

(Start: 8 @18942 has 239 MA's), (29, 18975), (31, 18987), (40, 19017), (51, 19077), (54, 19089), (55, 19095), (66, 19149), (71, 19209),

Gene: Ruriko\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Ruriko\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Ruthiejr\_24 Start: 20042, Stop: 20560, Start Num: 6

Candidate Starts for Ruthiejr\_24:

(Start: 6 @20042 has 22 MA's), (40, 20126), (51, 20186), (55, 20204), (68, 20276), (71, 20339), (100, 20549),

Gene: SamScheppers\_23 Start: 19949, Stop: 20467, Start Num: 6

Candidate Starts for SamScheppers\_23:

(Start: 6 @19949 has 22 MA's), (40, 20033), (51, 20093), (55, 20111), (68, 20183), (71, 20246), (100, 20456),

Gene: SamuelLPlaqson\_24 Start: 18868, Stop: 19344, Start Num: 8

Candidate Starts for SamuelLPlaqson\_24:

(Start: 8 @18868 has 239 MA's), (Start: 13 @18883 has 1 MA's), (29, 18901), (31, 18913), (37, 18931), (51, 19003), (54, 19015), (55, 19021), (58, 19036), (61, 19045), (66, 19075), (69, 19111), (71, 19135),

Gene: Scarlett\_23 Start: 18160, Stop: 18636, Start Num: 10

Candidate Starts for Scarlett\_23:

(Start: 10 @18160 has 6 MA's), (11, 18163), (29, 18190), (31, 18202), (40, 18232), (54, 18304), (55, 18310), (66, 18364), (99, 18610),

Gene: Schiebel\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Schiebel\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: SgtBeansprout\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for SgtBeansprout\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: ShaboiShabazz\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for ShaboiShabazz\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Shadow1\_22 Start: 17980, Stop: 18462, Start Num: 8

Candidate Starts for Shadow1\_22:

(Start: 8 @17980 has 239 MA's), (11, 17986), (29, 18013), (31, 18025), (40, 18055), (55, 18133), (68, 18205), (71, 18247),

Gene: Shaobing\_24 Start: 18280, Stop: 18756, Start Num: 8

Candidate Starts for Shaobing\_24:

(Start: 5 @18235 has 1 MA's), (Start: 8 @18280 has 239 MA's), (11, 18286), (23, 18304), (29, 18313), (31, 18325), (40, 18355), (51, 18415), (55, 18433), (71, 18547),

Gene: ShedlockHolmes\_23 Start: 19339, Stop: 19842, Start Num: 8

Candidate Starts for ShedlockHolmes\_23:

(Start: 5 @19294 has 1 MA's), (Start: 8 @19339 has 239 MA's), (28, 19357), (30, 19366), (40, 19402), (50, 19453), (51, 19462), (53, 19471), (55, 19480), (69, 19570), (90, 19720), (98, 19771),

Gene: ShiaSurprise\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for ShiaSurprise\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: SirPhilip\_23 Start: 17768, Stop: 18241, Start Num: 8

Candidate Starts for SirPhilip\_23:

(Start: 8 @17768 has 239 MA's), (Start: 13 @17783 has 1 MA's), (29, 17801), (31, 17813), (40, 17843), (43, 17861), (44, 17864), (54, 17915), (55, 17921), (66, 17975), (68, 17993), (71, 18035),

Gene: Sizemore\_19 Start: 18404, Stop: 18865, Start Num: 8

Candidate Starts for Sizemore\_19:

(Start: 5 @18359 has 1 MA's), (Start: 8 @18404 has 239 MA's), (43, 18506), (47, 18527), (67, 18623), (71, 18662), (72, 18683),

Gene: Slarp\_25 Start: 20421, Stop: 20939, Start Num: 6

Candidate Starts for Slarp\_25:

(Start: 6 @20421 has 22 MA's), (40, 20505), (51, 20565), (55, 20583), (68, 20655), (71, 20718), (100, 20928),

Gene: Slimphazie\_24 Start: 18921, Stop: 19397, Start Num: 8

Candidate Starts for Slimphazie\_24:

(Start: 8 @18921 has 239 MA's), (29, 18954), (31, 18966), (40, 18996), (51, 19056), (54, 19068), (55, 19074), (66, 19128), (71, 19188),

Gene: Sneeze\_19 Start: 18410, Stop: 18949, Start Num: 8

Candidate Starts for Sneeze\_19:

(Start: 8 @18410 has 239 MA's), (43, 18590), (67, 18707), (71, 18746),

Gene: SoSeph\_22 Start: 19416, Stop: 19925, Start Num: 8

Candidate Starts for SoSeph\_22:

(Start: 8 @19416 has 239 MA's), (Start: 13 @19431 has 1 MA's), (40, 19485), (63, 19596), (71, 19698),

Gene: Spock\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Spock\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Stargaze\_19 Start: 18702, Stop: 19301, Start Num: 8

Candidate Starts for Stargaze\_19:

(Start: 8 @18702 has 239 MA's), (14, 18744), (16, 18771), (17, 18780), (44, 18945), (55, 19002), (62, 19029), (80, 19161), (99, 19275),

Gene: Stellammi\_19 Start: 16866, Stop: 17369, Start Num: 22

Candidate Starts for Stellammi\_19:

(Start: 22 @16866 has 2 MA's), (34, 16947), (46, 16992), (53, 17028), (58, 17052), (70, 17136), (71, 17145), (75, 17181), (76, 17190), (77, 17196), (78, 17205), (84, 17250),

Gene: Stinson\_24 Start: 18887, Stop: 19363, Start Num: 8

Candidate Starts for Stinson\_24:

(Start: 8 @18887 has 239 MA's), (29, 18920), (31, 18932), (37, 18950), (40, 18962), (51, 19022), (53, 19031), (54, 19034), (55, 19040), (58, 19055), (71, 19154),

Gene: Strobilo\_20 Start: 16785, Stop: 17249, Start Num: 8

Candidate Starts for Strobilo\_20:

(Start: 5 @16740 has 1 MA's), (Start: 8 @16785 has 239 MA's), (33, 16818), (40, 16839), (48, 16881), (51, 16899), (55, 16917), (90, 17157),

Gene: Sulley\_24 Start: 18887, Stop: 19363, Start Num: 8

Candidate Starts for Sulley\_24:

(Start: 8 @18887 has 239 MA's), (29, 18920), (31, 18932), (40, 18962), (51, 19022), (54, 19034), (55, 19040), (66, 19094), (71, 19154), (81, 19223),

Gene: Sunflower1121\_22 Start: 17992, Stop: 18474, Start Num: 8

Candidate Starts for Sunflower1121\_22:

(Start: 8 @17992 has 239 MA's), (11, 17998), (29, 18025), (31, 18037), (40, 18067), (55, 18145), (68, 18217), (71, 18259), (81, 18328),

Gene: Sweets\_19 Start: 18398, Stop: 18859, Start Num: 8

Candidate Starts for Sweets\_19:

(Start: 5 @18353 has 1 MA's), (Start: 8 @18398 has 239 MA's), (43, 18500), (47, 18521), (67, 18617), (71, 18656), (72, 18677),

Gene: Syra333\_23 Start: 18087, Stop: 18569, Start Num: 8

Candidate Starts for Syra333\_23:

(Start: 8 @18087 has 239 MA's), (11, 18093), (29, 18120), (31, 18132), (40, 18162), (55, 18240), (68, 18312), (71, 18354),

Gene: TBond007\_23 Start: 19120, Stop: 19632, Start Num: 8

Candidate Starts for TBond007\_23:

(Start: 5 @19075 has 1 MA's), (Start: 8 @19120 has 239 MA's), (28, 19147), (30, 19156), (40, 19192), (50, 19243), (51, 19252), (53, 19261), (55, 19270), (69, 19360), (90, 19510), (98, 19561), (102, 19624),

Gene: TClif\_23 Start: 18120, Stop: 18590, Start Num: 8

Candidate Starts for TClif\_23:

(Start: 8 @18120 has 239 MA's), (29, 18153), (31, 18165), (40, 18195), (51, 18255), (54, 18267), (55, 18273), (58, 18288), (66, 18327), (71, 18387),

Gene: TM4\_20 Start: 16851, Stop: 17315, Start Num: 8

Candidate Starts for TM4\_20:

(Start: 5 @16806 has 1 MA's), (Start: 8 @16851 has 239 MA's), (33, 16884), (40, 16905), (48, 16947), (55, 16983), (83, 17193), (90, 17223),

Gene: TPA4\_21 Start: 19719, Stop: 20168, Start Num: 27

Candidate Starts for TPA4\_21:

(27, 19719), (59, 19875), (65, 19893), (73, 19989), (76, 20010), (85, 20070),

Gene: Tachez\_24 Start: 18883, Stop: 19359, Start Num: 8

Candidate Starts for Tachez\_24:

(Start: 8 @18883 has 239 MA's), (29, 18916), (31, 18928), (40, 18958), (51, 19018), (54, 19030), (55, 19036), (66, 19090), (71, 19150),

Gene: Taheera\_19 Start: 18420, Stop: 18959, Start Num: 8

Candidate Starts for Taheera\_19:

(Start: 8 @18420 has 239 MA's), (43, 18600), (67, 18717), (71, 18756),

Gene: TaiwanKao\_25 Start: 18894, Stop: 19370, Start Num: 8

Candidate Starts for TaiwanKao\_25:

(Start: 8 @18894 has 239 MA's), (29, 18927), (31, 18939), (40, 18969), (51, 19029), (54, 19041), (55, 19047), (66, 19101), (71, 19161),

Gene: Taquito\_23 Start: 20030, Stop: 20548, Start Num: 6

Candidate Starts for Taquito\_23:

(Start: 6 @20030 has 22 MA's), (40, 20114), (51, 20174), (55, 20192), (68, 20264), (71, 20327), (100, 20537),

Gene: Teejan\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Teejan\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: Terror\_19 Start: 18420, Stop: 18959, Start Num: 8

Candidate Starts for Terror\_19:

(Start: 8 @18420 has 239 MA's), (43, 18600), (67, 18717), (71, 18756),

Gene: Thyatira\_22 Start: 19268, Stop: 19777, Start Num: 8

Candidate Starts for Thyatira\_22:

(Start: 8 @19268 has 239 MA's), (Start: 13 @19283 has 1 MA's), (40, 19337), (63, 19448), (71, 19550),

Gene: Tierra\_23 Start: 18813, Stop: 19286, Start Num: 8

Candidate Starts for Tierra\_23:

(Start: 8 @18813 has 239 MA's), (29, 18846), (31, 18858), (37, 18876), (40, 18888), (55, 18966), (66, 19020), (68, 19038), (71, 19080),

Gene: Tigress9\_24 Start: 18075, Stop: 18557, Start Num: 8

Candidate Starts for Tigress9\_24:

(Start: 8 @18075 has 239 MA's), (11, 18081), (29, 18108), (31, 18120), (40, 18150), (55, 18228), (68, 18300), (71, 18342),

Gene: TinaBug\_19 Start: 18398, Stop: 18859, Start Num: 8

Candidate Starts for TinaBug\_19:

(Start: 5 @18353 has 1 MA's), (Start: 8 @18398 has 239 MA's), (43, 18500), (47, 18521), (67, 18617), (71, 18656), (72, 18677),

Gene: TingHuaYa\_24 Start: 18220, Stop: 18696, Start Num: 8

Candidate Starts for TingHuaYa\_24:

(Start: 8 @18220 has 239 MA's), (Start: 13 @18235 has 1 MA's), (29, 18253), (31, 18265), (40, 18295), (45, 18319), (51, 18355), (54, 18367), (55, 18373), (66, 18427), (71, 18487),

Gene: TiniBug\_24 Start: 18865, Stop: 19341, Start Num: 8

Candidate Starts for TiniBug\_24:

(Start: 8 @18865 has 239 MA's), (Start: 13 @18880 has 1 MA's), (29, 18898), (31, 18910), (37, 18928), (51, 19000), (54, 19012), (55, 19018), (61, 19042), (66, 19072), (69, 19108), (71, 19132),

Gene: Tiri\_24 Start: 18926, Stop: 19402, Start Num: 8

Candidate Starts for Tiri\_24:

(Start: 8 @18926 has 239 MA's), (29, 18959), (31, 18971), (40, 19001), (51, 19061), (54, 19073), (55, 19079), (66, 19133), (71, 19193),

Gene: TomBrady\_19 Start: 18404, Stop: 18865, Start Num: 8

Candidate Starts for TomBrady\_19:

(Start: 5 @18359 has 1 MA's), (Start: 8 @18404 has 239 MA's), (43, 18506), (47, 18527), (67, 18623), (71, 18662), (72, 18683),

Gene: Topper\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Topper\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Torres\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Torres\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: TreyKay\_24 Start: 18888, Stop: 19364, Start Num: 8

Candidate Starts for TreyKay\_24:

(Start: 8 @18888 has 239 MA's), (29, 18921), (31, 18933), (40, 18963), (51, 19023), (54, 19035), (55, 19041), (66, 19095), (71, 19155),

Gene: TribbleTrouble\_22 Start: 19166, Stop: 19669, Start Num: 8

Candidate Starts for TribbleTrouble\_22:

(Start: 5 @19121 has 1 MA's), (Start: 8 @19166 has 239 MA's), (28, 19184), (30, 19193), (40, 19229), (50, 19280), (51, 19289), (53, 19298), (55, 19307), (69, 19397), (90, 19547), (101, 19640), (102, 19661),

Gene: Trice\_20 Start: 18463, Stop: 18939, Start Num: 8

Candidate Starts for Trice\_20:

(Start: 5 @18418 has 1 MA's), (Start: 8 @18463 has 239 MA's), (11, 18469), (23, 18487), (29, 18496), (40, 18538), (51, 18598), (55, 18616), (66, 18670), (68, 18688), (71, 18730),

Gene: TruffulaTree\_24 Start: 18917, Stop: 19393, Start Num: 8

Candidate Starts for TruffulaTree\_24:

(Start: 8 @18917 has 239 MA's), (29, 18950), (31, 18962), (40, 18992), (51, 19052), (54, 19064), (55, 19070), (66, 19124), (71, 19184),

Gene: Twitch\_24 Start: 18954, Stop: 19430, Start Num: 8

Candidate Starts for Twitch\_24:

(Start: 8 @18954 has 239 MA's), (29, 18987), (31, 18999), (40, 19029), (51, 19089), (54, 19101), (55, 19107), (66, 19161), (71, 19221),

Gene: Typha\_25 Start: 21443, Stop: 21985, Start Num: 15

Candidate Starts for Typha\_25:

(Start: 15 @21443 has 5 MA's), (18, 21458), (24, 21524), (35, 21581), (41, 21605), (42, 21614), (43, 21620), (44, 21623), (49, 21650), (52, 21671), (60, 21707), (66, 21740), (68, 21758), (82, 21878), (91, 21920),

Gene: Unicorn\_23 Start: 18138, Stop: 18611, Start Num: 8

Candidate Starts for Unicorn\_23:

(Start: 8 @18138 has 239 MA's), (29, 18171), (31, 18183), (37, 18201), (40, 18213), (55, 18291), (66, 18345), (68, 18363), (71, 18405), (79, 18465),

Gene: Urkel\_24 Start: 18868, Stop: 19344, Start Num: 8

Candidate Starts for Urkel\_24:

(Start: 8 @18868 has 239 MA's), (Start: 13 @18883 has 1 MA's), (29, 18901), (31, 18913), (37, 18931), (51, 19003), (54, 19015), (55, 19021), (58, 19036), (61, 19045), (66, 19075), (69, 19111), (71, 19135),

Gene: Validus\_24 Start: 18214, Stop: 18687, Start Num: 8

Candidate Starts for Validus\_24:

(Start: 5 @18169 has 1 MA's), (Start: 8 @18214 has 239 MA's), (11, 18220), (23, 18238), (29, 18247), (31, 18259), (40, 18289), (51, 18349), (55, 18367), (64, 18403), (71, 18481), (84, 18586),

Gene: Veliki\_24 Start: 18957, Stop: 19433, Start Num: 8

Candidate Starts for Veliki\_24:

(Start: 8 @18957 has 239 MA's), (29, 18990), (31, 19002), (40, 19032), (51, 19092), (54, 19104), (55, 19110), (66, 19164), (71, 19224),

Gene: ViviJ\_21 Start: 19125, Stop: 19634, Start Num: 8

Candidate Starts for ViviJ\_21:

(Start: 8 @19125 has 239 MA's), (Start: 13 @19140 has 1 MA's), (40, 19194), (63, 19305), (71, 19407), (81, 19476),

Gene: Waterfoul\_22 Start: 19289, Stop: 19798, Start Num: 8

Candidate Starts for Waterfoul\_22:

(Start: 8 @19289 has 239 MA's), (Start: 13 @19304 has 1 MA's), (40, 19358), (63, 19469), (71, 19571),

Gene: Wendigo\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Wendigo\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: Wintermute\_25 Start: 20410, Stop: 20928, Start Num: 6

Candidate Starts for Wintermute\_25:

(Start: 6 @20410 has 22 MA's), (40, 20494), (51, 20554), (55, 20572), (68, 20644), (71, 20707), (100, 20917),

Gene: Ximenita\_24 Start: 18265, Stop: 18747, Start Num: 8

Candidate Starts for Ximenita\_24:

(Start: 8 @18265 has 239 MA's), (11, 18271), (29, 18298), (31, 18310), (40, 18340), (55, 18418), (68, 18490), (71, 18532), (81, 18601), (95, 18694),

Gene: Y10\_25 Start: 20410, Stop: 20928, Start Num: 6

Candidate Starts for Y10\_25:

(Start: 6 @20410 has 22 MA's), (40, 20494), (51, 20554), (55, 20572), (68, 20644), (71, 20707), (100, 20917),

Gene: Y2\_25 Start: 20410, Stop: 20928, Start Num: 6

Candidate Starts for Y2\_25:

(Start: 6 @20410 has 22 MA's), (40, 20494), (51, 20554), (55, 20572), (68, 20644), (71, 20707), (100, 20917),

Gene: YangYin\_19 Start: 18726, Stop: 19325, Start Num: 8

Candidate Starts for YangYin\_19:

(Start: 8 @18726 has 239 MA's), (14, 18768), (16, 18795), (17, 18804), (44, 18969), (55, 19026), (62, 19053), (80, 19185), (99, 19299),

Gene: YasnayaPolyana\_25 Start: 20411, Stop: 20929, Start Num: 6

Candidate Starts for YasnayaPolyana\_25:

(Start: 6 @20411 has 22 MA's), (40, 20495), (51, 20555), (55, 20573), (68, 20645), (71, 20708), (100, 20918),

Gene: YoureAdopted\_23 Start: 18890, Stop: 19366, Start Num: 8

Candidate Starts for YoureAdopted\_23:

(Start: 8 @18890 has 239 MA's), (29, 18923), (31, 18935), (40, 18965), (51, 19025), (54, 19037), (55, 19043), (66, 19097), (71, 19157),

Gene: Yuna\_25 Start: 18808, Stop: 19326, Start Num: 8

Candidate Starts for Yuna\_25:

(Start: 8 @18808 has 239 MA's), (29, 18841), (31, 18853), (40, 18883), (54, 18955), (55, 18961), (71, 19075), (81, 19144), (97, 19240),

Gene: Yunkel11\_24 Start: 18146, Stop: 18616, Start Num: 8

Candidate Starts for Yunkel11\_24:

(Start: 8 @18146 has 239 MA's), (Start: 13 @18161 has 1 MA's), (29, 18179), (31, 18191), (40, 18221), (51, 18281), (55, 18299), (66, 18353), (71, 18413),

Gene: Zabiza\_24 Start: 18921, Stop: 19397, Start Num: 8

Candidate Starts for Zabiza\_24:

(Start: 8 @18921 has 239 MA's), (29, 18954), (31, 18966), (40, 18996), (51, 19056), (54, 19068), (55, 19074), (66, 19128), (71, 19188),

Gene: Zavala\_24 Start: 18895, Stop: 19371, Start Num: 8

Candidate Starts for Zavala\_24:

(Start: 8 @18895 has 239 MA's), (29, 18928), (31, 18940), (40, 18970), (51, 19030), (54, 19042), (55, 19048), (66, 19102), (71, 19162),

Gene: ZoMa\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for ZoMa\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),

Gene: ZoeJ\_20 Start: 16723, Stop: 17187, Start Num: 8

Candidate Starts for ZoeJ\_20:

(Start: 5 @16678 has 1 MA's), (Start: 8 @16723 has 239 MA's), (33, 16756), (40, 16777), (48, 16819), (51, 16837), (55, 16855), (90, 17095),

Gene: Zombie\_19 Start: 18403, Stop: 18864, Start Num: 8

Candidate Starts for Zombie\_19:

(Start: 5 @18358 has 1 MA's), (Start: 8 @18403 has 239 MA's), (43, 18505), (47, 18526), (67, 18622), (71, 18661), (72, 18682),