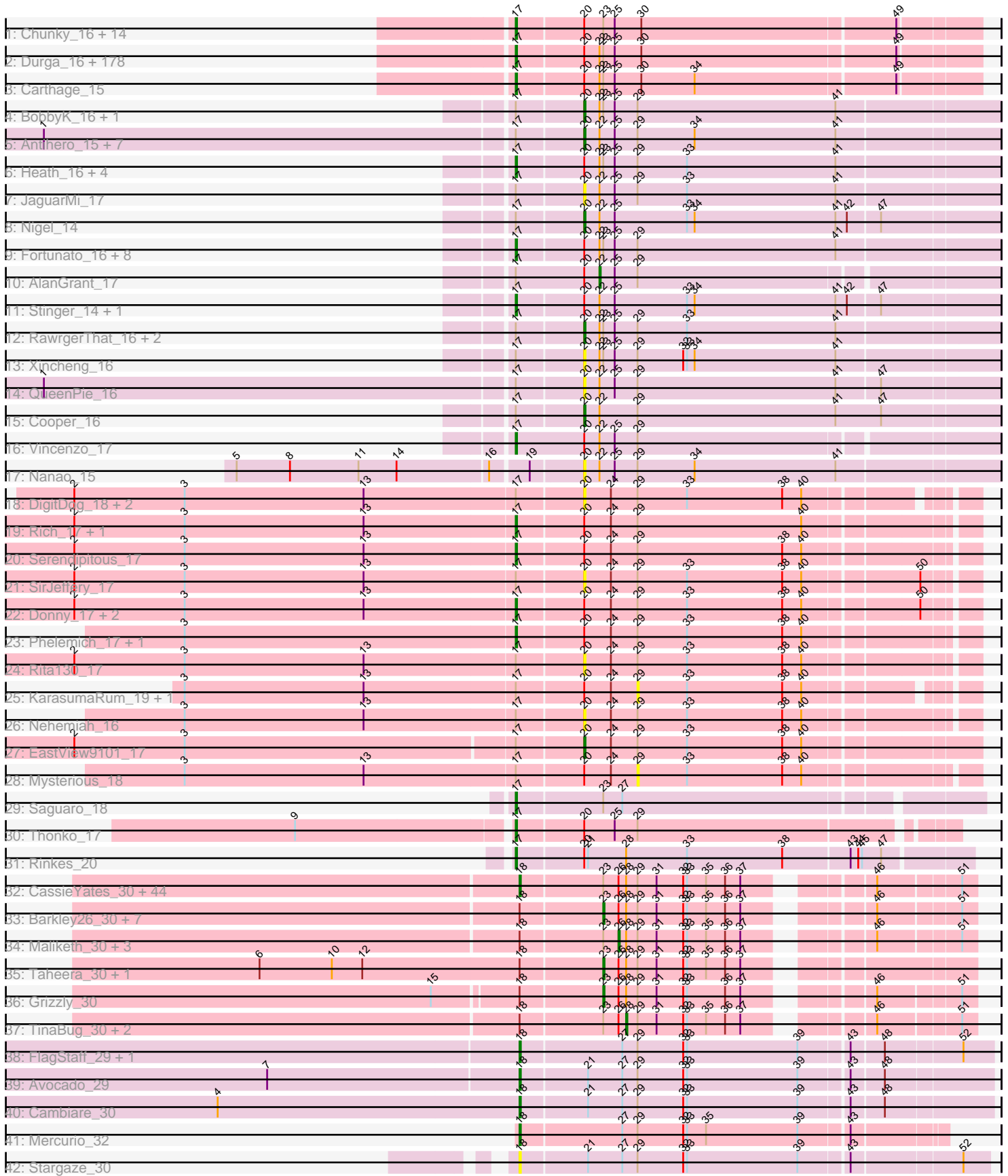


Pham 224211



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 224211 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224211 has 322 members, 27 are drafts.

Phages represented in each track:

- Track 1 : Chunky\_16, Usavi\_16, Dingo\_16, DirtJuice\_16, Jiraiya\_15, Podrick\_16, MiniBoss\_16, BlueHusk\_16, SDcharge11\_16, Mikota\_16, Lulwa\_16, Horchata\_16, Robyn\_15, KingVeVeVe\_16, Crownjwl\_16
- Track 2 : Durga\_16, BlackStallion\_16, Inchworm\_16, Labeouficaum\_15, CharlieGBrown\_15, Held\_16, HSavage\_16, Phergie\_15, Bishoperium\_15, Placalicious\_15, Zaider\_17, Lego3393\_16, Mcshane\_15, AbsoluteMadLad\_15, Kimbrough\_16, HenryJackson\_15, CampRoach\_16, Morty\_16, Struggle\_15, PhatCats2014\_16, Cornobble\_15, Olak\_15, FugateOSU\_15, Fringe\_16, Quisquilliae\_16, LeeLot\_16, JangoPhett\_16, JacAttac\_16, Roliet\_16, Wallhey\_15, Toni\_15, Craff\_16, Pherdinand\_16, Orfeu\_15, Phamished\_16, Tomlarah\_16, Kwadwo\_15, Legolas\_15, Matalotodo\_16, Dione\_15, Schueller\_15, PhrodoBaggins\_15, LemonSlice\_16, Gwilliam\_16, Piglet\_0015, Nicole21\_16, Hetaeria\_16, Chorkpop\_16, Phleuron\_15, Slatt\_16, Kahve\_15, Gareth\_15, Hertubise\_16, Derpp\_15, Vivaldi\_16, Jiminy\_15, Fozzie\_15, Mecca\_15, Kwksand96\_15, Simielle\_15, Haimas\_16, Pimatters\_16, Zelda\_16, EmpTee\_16, UAch1\_16, Melc17\_16, Virapocalypse\_16, Beaglebox\_15, Mag7\_15, DonSanchon\_15, FriarPreacher\_16, Buckeye\_16, MRabcd\_15, Nacho\_0016, DaddyDaniels\_16, Adriana\_16, CheetO\_16, Hartsy\_16, Valjean\_16, AltPhacts\_16, JakeO\_15, HighStump\_15, Phunky\_16, Oline\_15, Sheila\_16, LasagnaCat\_16, Spartan300\_16, Samaymay\_16, Pipsqueak\_16, Squid\_16, LostAndPhound\_15, Frankicide\_16, ShiVal\_16, Tooj\_16, Schadenfreude\_15, Roscoe\_17, Childish\_15, LuckyMarjie\_15, Antonia\_15, Freya\_15, Haleema\_15, Scrick\_15, RedMaple\_15, Altwerkus\_15, Daka\_16, Mosaic\_15, MitKao\_16, SassyCat97\_15, Dice\_15, Soto\_16, Weher20\_16, Serpentine\_0016, CamL\_16, Ricotta\_15, Pacifista\_15, Soile\_16, TomBombadil\_16, Dati\_16, KlimbOn\_16, Duggie\_15, Lulumae\_15, Charles1\_16, Chaelin\_15, Cher\_15, Jillium\_15, GeneCoco\_16, Giraffe\_16, PhrankReynolds\_15, TyrionL\_15, Trypo\_16, PhenghisKhan\_15, Xavier\_15, Boehler\_16, Lumine\_15, Burr\_15, Mulan\_15, Vista\_16, Grand2040\_15, Brilliant\_16, ProfessorX\_16, Emiris\_16, MichaelPhcott\_15, Phareon\_16, Cobra\_16, Veritas\_15, Magic8\_16, QueenBeane\_16, Telesworld\_15, Zonia\_16, True\_15, Kailash\_16, Timmi\_15, Omniscient\_16, Roy17\_16, YouGoGlencoco\_16, Squiggle\_16, Riggan\_16, Mesh1\_16, Solosis\_15, Hocus\_15, Waterdiva\_16, Bluephacebaby\_15, Cosmolli16\_15, Mutante\_15, Windsor\_15, KingTut\_15, Surely\_16, Keitherie\_16, DoesntMatter\_16, Gyarad\_0016, Vaticameos\_16, Sophia\_15, Kloppinator\_16, Skippy\_16, Maru\_15, Selr12\_16, Aelin\_15, Cannibal\_16, PinheadLarry\_16
- Track 3 : Carthage\_15
- Track 4 : BobbyK\_16, Apex\_16

- Track 5 : Antihero\_15, Epah\_15, Poster\_15, Lambano\_15, ChrisnMich\_15, GinPorsche\_15, Hally898\_15, Ahwei\_15
- Track 6 : Heath\_16, Hydro\_16, Hangman\_16, VioletZ\_16, Waleliano\_16
- Track 7 : JaguarMi\_17
- Track 8 : Nigel\_14
- Track 9 : Fortunato\_16, Magpie\_16, Prince\_16, Mudslide\_16, Austelle\_17, Frederick\_16, Mithril\_16, Lolalove\_16, BrownCNA\_17
- Track 10 : AlanGrant\_17
- Track 11 : Stinger\_14, JAMaL\_16
- Track 12 : RawrgerThat\_16, Zemanar\_17, Fanaw\_16
- Track 13 : Xincheng\_16
- Track 14 : QueenPie\_16
- Track 15 : Cooper\_16
- Track 16 : Vincenzo\_17
- Track 17 : Nanao\_15
- Track 18 : DigitDog\_18, Shenyu\_17, Nangang\_17
- Track 19 : Rich\_17, Bae\_17
- Track 20 : Serendipitous\_17
- Track 21 : SirJeffery\_17
- Track 22 : Donny\_17, Suigeneris\_17, Acadian\_17
- Track 23 : Phelemich\_17, Reprobate\_17
- Track 24 : Rita130\_17
- Track 25 : KarasumaRum\_19, StinkyVeggy\_19
- Track 26 : Nehemiah\_16
- Track 27 : EastView9101\_17
- Track 28 : Mysterious\_18
- Track 29 : Saguaro\_18
- Track 30 : Thonko\_17
- Track 31 : Rinkes\_20
- Track 32 : CassieYates\_30, BQuat\_30, Angel\_30, BruceB\_30, Coleslaw\_30, GoldenAsh\_30, Halo\_30, Annihilator\_30, BPs\_30, Kareem\_30, Frosty24\_30, ShaboiShabazz\_30, Cherrybomb426\_30, Gideon\_30, LouisV14\_30, Plagueis\_30, Aroostook\_30, Jolene\_30, Sneeze\_30, Jane\_30, Peeb\_30, Zombie\_30, Rabbs\_30, Chance64\_30, Remy19\_30, Mowgli\_30, DMoney\_30, ECartman\_30, Marmie\_30, Renaissance\_30, JorRay\_30, OctaviousRex\_30, Liefie\_30, Periodt\_30, Phreak\_30, Jonghyun\_30, TomBrady\_30, ZoMa\_30, Schiebel\_30, Sizemore\_30, Hope\_30, Avrafan\_30, PinkYoshi\_30, Darionha\_30, Gomashi\_30
- Track 33 : Barkley26\_30, Sweets\_30, DNAlll\_0030, Hotshotbaby7\_30, Cedasite\_30, Olga\_30, Kasen3\_30, Camri\_30
- Track 34 : Maliketh\_30, AzulaCat\_30, Crespo\_30, Phish\_30
- Track 35 : Taheera\_30, Terror\_30
- Track 36 : Grizzly\_30
- Track 37 : TinaBug\_30, CLED96\_30, Wendigo\_30
- Track 38 : FlagStaff\_29, Pace1224\_29
- Track 39 : Avocado\_29
- Track 40 : Cambiare\_30
- Track 41 : Mercurio\_32
- Track 42 : Stargaze\_30

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

The start number called the most often in the published annotations is 17, it was called in 223 of the 295 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbsoluteMadLad\_15, Acadian\_17, Adriana\_16, Aelin\_15, AltPhacts\_16, Altwerkus\_15, Antonia\_15, Austelle\_17, Bae\_17, Beaglebox\_15, Bishoperium\_15, BlackStallion\_16, BlueHusk\_16, Bluephacebaby\_15, Boehler\_16, Brilliant\_16, BrownCNA\_17, Buckeye\_16, Burr\_15, CamL\_16, CampRoach\_16, Cannibal\_16, Carthage\_15, Chaelin\_15, Charles1\_16, CharlieGBrown\_15, CheetO\_16, Cher\_15, Childish\_15, Chorkpop\_16, Chunky\_16, Cobra\_16, Cornobble\_15, Cosmolli16\_15, Craff\_16, Crownjwl\_16, DaddyDaniels\_16, Daka\_16, Dati\_16, Derpp\_15, Dice\_15, Dingo\_16, Dione\_15, DirtJuice\_16, DoesntMatter\_16, DonSanchon\_15, Donny\_17, Duggie\_15, Durga\_16, Emiris\_16, EmpTee\_16, Fortunato\_16, Fozzie\_15, Frankicide\_16, Frederick\_16, Freya\_15, FriarPreacher\_16, Fringe\_16, FugateOSU\_15, Gareth\_15, GeneCoco\_16, Giraffe\_16, Grand2040\_15, Gwilliam\_16, Gyarad\_0016, HSavage\_16, Haimas\_16, Haleema\_15, Hangman\_16, Hartsy\_16, Heath\_16, Held\_16, HenryJackson\_15, Hertubise\_16, Hetaeria\_16, HighStump\_15, Hocus\_15, Horchata\_16, Hydro\_16, Inchworm\_16, JAMaL\_16, JacAttac\_16, JakeO\_15, JangoPhett\_16, Jillium\_15, Jiminy\_15, Jiraiya\_15, Kahve\_15, Kailash\_16, Keitherie\_16, Kimbrough\_16, KingTut\_15, KingVeVeVe\_16, KlimbOn\_16, Kloppinator\_16, Kwadwo\_15, Kwksand96\_15, Labeouficaum\_15, LasagnaCat\_16, LeeLot\_16, Lego3393\_16, Legolas\_15, LemonSlice\_16, Lolalove\_16, LostAndPhound\_15, LuckyMarjie\_15, Lulumae\_15, Lulwa\_16, Lumine\_15, MRabcd\_15, Mag7\_15, Magic8\_16, Magpie\_16, Maru\_15, Matalotodo\_16, Mcshane\_15, Mecca\_15, Melc17\_16, Mesh1\_16, MichaelPhcott\_15, Mikota\_16, MiniBoss\_16, MitKao\_16, Mithril\_16, Morty\_16, Mosaic\_15, Mudslide\_16, Mulan\_15, Mutante\_15, Nacho\_0016, Nicole21\_16, Olak\_15, Oline\_15, Omniscient\_16, Orfeu\_15, Pacifista\_15, Phamished\_16, Phareon\_16, PhatCats2014\_16, Phelemich\_17, PhenghisKhan\_15, Pherdinand\_16, Phergie\_15, Phleuron\_15, PhrankReynolds\_15, PhrodoBaggins\_15, Phunky\_16, Piglet\_0015, PinheadLarry\_16, Pipsqueak\_16, Placalicious\_15, Plmatters\_16, Podrick\_16, Prince\_16, ProfessorX\_16, QueenBeane\_16, Quisquilliae\_16, RedMaple\_15, Reprobate\_17, Rich\_17, Ricotta\_15, Riggan\_16, Rinkes\_20, Robyn\_15, Roliet\_16, Roscoe\_17, Roy17\_16, SDcharge11\_16, Saguario\_18, Samaymay\_16, SassyCat97\_15, Schadenfreude\_15, Schueller\_15, Scrick\_15, Selr12\_16, Serendipitous\_17, Serpentine\_0016, Sheila\_16, ShiVal\_16, Simielle\_15, Skippy\_16, Slatt\_16, Soile\_16, Solosis\_15, Sophia\_15, Soto\_16, Spartan300\_16, Squid\_16, Squiggle\_16, Stinger\_14, Struggle\_15, Suigeneris\_17, Surely\_16, Telesworld\_15, Thonko\_17, Timmi\_15, TomBombadil\_16, Tomlarah\_16, Toni\_15, Tooj\_16, True\_15, Trypo\_16, TyrionL\_15, UAch1\_16, Usavi\_16, Valjean\_16, Vaticameos\_16, Veritas\_15, Vincenzo\_17, VioletZ\_16, Virapocalypse\_16, Vista\_16, Vivaldi\_16, Waleliano\_16, Wallhey\_15, Waterdiva\_16, Weher20\_16, Windsor\_15, Xavier\_15, YouGoGlencoco\_16, Zaider\_17, Zelda\_16, Zonia\_16,

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

- Ahwei\_15, AlanGrant\_17, Antihero\_15, Apex\_16, BobbyK\_16, ChrisnMich\_15, Cooper\_16, DigitDog\_18, EastView9101\_17, Epah\_15, Fanaw\_16, GinPorsche\_15, Hally898\_15, JaguarMi\_17, KarasumaRum\_19, Lambano\_15, Mysterious\_18, Nangang\_17, Nehemiah\_16, Nigel\_14, Poster\_15, QueenPie\_16, RawrgerThat\_16, Rita130\_17, Shenyu\_17, SirJeffery\_17, StinkyVeggy\_19, Xincheng\_16, Zemanar\_17,

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

- Angel\_30, Annihilator\_30, Aroostook\_30, Avocado\_29, Avrafan\_30, AzulaCat\_30, BPs\_30, BQuat\_30, Barkley26\_30, BruceB\_30, CLED96\_30, Cambiare\_30, Camri\_30, CassieYates\_30, Cedasite\_30, Chance64\_30, Cherrybomb426\_30, Coleslaw\_30, Crespo\_30, DMoney\_30, DNAIII\_0030, Darionha\_30, ECartman\_30, FlagStaff\_29, Frosty24\_30, Gideon\_30, GoldenAsh\_30, Gomashi\_30, Grizzly\_30, Halo\_30, Hope\_30, Hotshotbaby7\_30, Jane\_30, Jolene\_30, Jonghyun\_30, JorRay\_30, Kareem\_30, Kasen3\_30, Liefie\_30, LouisV14\_30, Maliketh\_30, Marmie\_30, Mercurio\_32, Mowgli\_30, Nanao\_15, OctaviousRex\_30, Olga\_30, Pace1224\_29, Peeb\_30, Periodt\_30, Phish\_30, Phreak\_30, PinkYoshi\_30, Plagueis\_30, Rabbs\_30, Remy19\_30, Renaissance\_30, Schiebel\_30, ShaboiShabazz\_30, Sizemore\_30, Sneeze\_30, Stargaze\_30, Sweets\_30, Taheera\_30, Terror\_30, TinaBug\_30, TomBrady\_30, Wendigo\_30, ZoMa\_30, Zombie\_30,

### Summary by start number:

Start 17:

- Found in 252 of 322 ( 78.3% ) of genes in pham
- Manual Annotations of this start: 223 of 295
- Called 88.5% of time when present
- Phage (with cluster) where this start called: AbsoluteMadLad\_15 (B1), Acadian\_17 (B5), Adriana\_16 (B1), Aelin\_15 (B1), AltPhacts\_16 (B1), Altwerkus\_15 (B1), Antonia\_15 (B1), Austelle\_17 (B4), Bae\_17 (B5), Beaglebox\_15 (B1), Bishoperium\_15 (B1), BlackStallion\_16 (B1), BlueHusk\_16 (B1), Bluephacebaby\_15 (B1), Boehler\_16 (B1), Brilliant\_16 (B1), BrownCNA\_17 (B4), Buckeye\_16 (B1), Burr\_15 (B1), CamL\_16 (B1), CampRoach\_16 (B1), Cannibal\_16 (B1), Carthage\_15 (B1), Chaelin\_15 (B1), Charles1\_16 (B1), CharlieGBrown\_15 (B1), CheetO\_16 (B1), Cher\_15 (B1), Childish\_15 (B1), Chorkpop\_16 (B1), Chunky\_16 (B1), Cobra\_16 (B1), Cornobble\_15 (B1), Cosmolli16\_15 (B1), Craff\_16 (B1), Crownjwl\_16 (B1), DaddyDaniels\_16 (B1), Daka\_16 (B1), Dati\_16 (B1), Derpp\_15 (B1), Dice\_15 (B1), Dingo\_16 (B1), Dione\_15 (B1), DirtJuice\_16 (B1), DoesntMatter\_16 (B1), DonSanchon\_15 (B1), Donny\_17 (B5), Duggie\_15 (B1), Durga\_16 (B1), Emiris\_16 (B1), EmpTee\_16 (B1), Fortunato\_16 (B4), Fozzie\_15 (B1), Frankicide\_16 (B1), Frederick\_16 (B4), Freya\_15 (B1), FriarPreacher\_16 (B1), Fringe\_16 (B1), FugateOSU\_15 (B1), Gareth\_15 (B1), GeneCoco\_16 (B1), Giraffe\_16 (B1), Grand2040\_15 (B1), Gwilliam\_16 (B1), Gyarad\_0016 (B1), HSavage\_16 (B1), Haimas\_16 (B1), Haleema\_15 (B1), Hangman\_16 (B4), Hartsy\_16 (B1), Heath\_16 (B4), Held\_16 (B1), HenryJackson\_15 (B1), Hertubise\_16 (B1), Hetaeria\_16 (B1), HighStump\_15 (B1), Hocus\_15 (B1), Horchata\_16 (B1), Hydro\_16 (B4), Inchworm\_16 (B1), JAMaL\_16 (B4), JacAttac\_16 (B1), JakeO\_15 (B1), JangoPhett\_16 (B1), Jillium\_15 (B1), Jiminy\_15 (B1), Jiraiya\_15 (B1), Kahve\_15 (B1), Kailash\_16 (B1), Keitherie\_16 (B1), Kimbrough\_16 (B1), KingTut\_15 (B1), KingVeVeVe\_16 (B1), KlimbOn\_16 (B1), Kloppinator\_16 (B1), Kwadwo\_15 (B1), Kwksand96\_15 (B1), Labeouficaum\_15 (B1), LasagnaCat\_16 (B1), LeeLot\_16 (B1), Lego3393\_16 (B1), Legolas\_15 (B1), LemonSlice\_16 (B1), Lolalove\_16 (B4), LostAndPhound\_15 (B1), LuckyMarjie\_15 (B1), Lulumae\_15 (B1), Lulwa\_16 (B1), Lumine\_15 (B1), MRabcd\_15 (B1), Mag7\_15 (B1), Magic8\_16 (B1), Magpie\_16 (B4), Maru\_15 (B1), Matalotodo\_16 (B1), Mcshane\_15 (B1), Mecca\_15 (B1), Melc17\_16 (B1), Mesh1\_16 (B1), MichaelPhcott\_15 (B1), Mikota\_16 (B1), MiniBoss\_16 (B1), MitKao\_16 (B1), Mithril\_16 (B4), Morty\_16 (B1), Mosaic\_15 (B1), Mudslide\_16 (B4), Mulan\_15 (B1), Mutante\_15 (B1), Nacho\_0016 (B1), Nicole21\_16 (B1), Olak\_15 (B1), Oline\_15 (B1), Omniscient\_16 (B1), Orfeu\_15 (B1), Pacifista\_15 (B1), Phamished\_16 (B1), Phareon\_16 (B1), PhatCats2014\_16 (B1), Phelemich\_17 (B5), PhenghisKhan\_15

(B1), Pherdinand\_16 (B1), Phergie\_15 (B1), Phleuron\_15 (B1), PhrankReynolds\_15 (B1), PhrodoBaggins\_15 (B1), Phunky\_16 (B1), Piglet\_0015 (B1), PinheadLarry\_16 (B1), Pipsqueak\_16 (B1), Placalicious\_15 (B1), Plmatters\_16 (B1), Podrick\_16 (B1), Prince\_16 (B4), ProfessorX\_16 (B1), QueenBeane\_16 (B1), Quisquillae\_16 (B1), RedMaple\_15 (B1), Reprobate\_17 (B5), Rich\_17 (B5), Ricotta\_15 (B1), Riggan\_16 (B1), Rinkes\_20 (B9), Robyn\_15 (B1), Roliet\_16 (B1), Roscoe\_17 (B1), Roy17\_16 (B1), SDcharge11\_16 (B1), Saguario\_18 (B7), Samaymay\_16 (B1), SassyCat97\_15 (B1), Schadenfreude\_15 (B1), Schueller\_15 (B1), Scrick\_15 (B1), Selr12\_16 (B1), Serendipitous\_17 (B5), Serpentine\_0016 (B1), Sheila\_16 (B1), ShiVal\_16 (B1), Simielle\_15 (B1), Skippy\_16 (B1), Slatt\_16 (B1), Soile\_16 (B1), Solosis\_15 (B1), Sophia\_15 (B1), Soto\_16 (B1), Spartan300\_16 (B1), Squid\_16 (B1), Squiggle\_16 (B1), Stinger\_14 (B4), Struggle\_15 (B1), Suigeneris\_17 (B5), Surely\_16 (B1), Telesworld\_15 (B1), Thonko\_17 (B8), Timmi\_15 (B1), TomBombadil\_16 (B1), Tomlarah\_16 (B1), Toni\_15 (B1), Tooj\_16 (B1), True\_15 (B1), Trypo\_16 (B1), TyrionL\_15 (B1), UAch1\_16 (B1), Usavi\_16 (B1), Valjean\_16 (B1), Vaticameos\_16 (B1), Veritas\_15 (B1), Vincenzo\_17 (B4), VioletZ\_16 (B4), Virapocalypse\_16 (B1), Vista\_16 (B1), Vivaldi\_16 (B1), Waleliano\_16 (B4), Wallhey\_15 (B1), Waterdiva\_16 (B1), Weher20\_16 (B1), Windsor\_15 (B1), Xavier\_15 (B1), YouGoGlencoco\_16 (B1), Zaider\_17 (B1), Zelda\_16 (B1), Zonia\_16 (B1),

#### Start 18:

- Found in 69 of 322 ( 21.4% ) of genes in pham
- Manual Annotations of this start: 49 of 295
- Called 73.9% of time when present
- Phage (with cluster) where this start called: Angel\_30 (G1), Annihilator\_30 (G1), Aroostook\_30 (G1), Avocado\_29 (G2), Avrafan\_30 (G1), BPs\_30 (G1), BQuat\_30 (G1), BruceB\_30 (G1), Cambiare\_30 (G2), CassieYates\_30 (G1), Chance64\_30 (G1), Cherrybomb426\_30 (G1), Coleslaw\_30 (G1), DMoney\_30 (G1), Darionha\_30 (G1), ECartman\_30 (G1), FlagStaff\_29 (G2), Frosty24\_30 (G1), Gideon\_30 (G1), GoldenAsh\_30 (G1), Gomashi\_30 (G1), Halo\_30 (G1), Hope\_30 (G1), Jane\_30 (G1), Jolene\_30 (G1), Jonghyun\_30 (G1), JorRay\_30 (G1), Kareem\_30 (G1), Liefie\_30 (G1), LouisV14\_30 (G1), Marmie\_30 (G1), Mercurio\_32 (G4), Mowgli\_30 (G1), OctaviousRex\_30 (G1), Pace1224\_29 (G2), Peeb\_30 (G1), Periodt\_30 (G1), Phreak\_30 (G1), PinkYoshi\_30 (G1), Plagueis\_30 (G1), Rabbs\_30 (G1), Remy19\_30 (G1), Renaissance\_30 (G1), Schiebel\_30 (G1), ShaboiShabazz\_30 (G1), Sizemore\_30 (G1), Sneeze\_30 (G1), Stargaze\_30 (G5), TomBrady\_30 (G1), ZoMa\_30 (G1), Zombie\_30 (G1),

#### Start 20:

- Found in 252 of 322 ( 78.3% ) of genes in pham
- Manual Annotations of this start: 8 of 295
- Called 10.3% of time when present
- Phage (with cluster) where this start called: Ahwei\_15 (B4), Antihero\_15 (B4), Apex\_16 (B4), BobbyK\_16 (B4), ChrisnMich\_15 (B4), Cooper\_16 (B4), DigitDog\_18 (B5), EastView9101\_17 (B5), Epah\_15 (B4), Fanaw\_16 (B4), GinPorsche\_15 (B4), Hally898\_15 (B4), JaguarMi\_17 (B4), Lambano\_15 (B4), Nanao\_15 (B4), Nangang\_17 (B5), Nehemiah\_16 (B5), Nigel\_14 (B4), Poster\_15 (B4), QueenPie\_16 (B4), RawrgerThat\_16 (B4), Rita130\_17 (B5), Shenyu\_17 (B5), SirJeffery\_17 (B5), Xincheng\_16 (B4), Zemanar\_17 (B4),

#### Start 22:

- Found in 217 of 322 ( 67.4% ) of genes in pham
- Manual Annotations of this start: 1 of 295

- Called 0.5% of time when present
- Phage (with cluster) where this start called: AlanGrant\_17 (B4),

#### Start 23:

- Found in 279 of 322 ( 86.6% ) of genes in pham
- Manual Annotations of this start: 11 of 295
- Called 3.9% of time when present
- Phage (with cluster) where this start called: Barkley26\_30 (G1), Camri\_30 (G1), Cedasite\_30 (G1), DNAlll\_0030 (G1), Grizzly\_30 (G1), Hotshotbaby7\_30 (G1), Kasen3\_30 (G1), Olga\_30 (G1), Sweets\_30 (G1), Taheera\_30 (G1), Terror\_30 (G1),

#### Start 26:

- Found in 63 of 322 ( 19.6% ) of genes in pham
- Manual Annotations of this start: 2 of 295
- Called 6.3% of time when present
- Phage (with cluster) where this start called: AzulaCat\_30 (G1), Crespo\_30 (G1), Maliketh\_30 (G1), Phish\_30 (G1),

#### Start 28:

- Found in 64 of 322 ( 19.9% ) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 4.7% of time when present
- Phage (with cluster) where this start called: CLED96\_30 (G1), TinaBug\_30 (G1), Wendigo\_30 (G1),

#### Start 29:

- Found in 122 of 322 ( 37.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.5% of time when present
- Phage (with cluster) where this start called: KarasumaRum\_19 (B5), Mysterious\_18 (B5), StinkyVeggy\_19 (B5),

### **Summary by clusters:**

There are 10 clusters represented in this pham: G5, G4, G2, G1, B4, B5, B7, B1, B8, B9,

#### Info for manual annotations of cluster B1:

- Start number 17 was manually annotated 195 times for cluster B1.

#### Info for manual annotations of cluster B4:

- Start number 17 was manually annotated 17 times for cluster B4.
- Start number 20 was manually annotated 7 times for cluster B4.
- Start number 22 was manually annotated 1 time for cluster B4.

#### Info for manual annotations of cluster B5:

- Start number 17 was manually annotated 8 times for cluster B5.
- Start number 20 was manually annotated 1 time for cluster B5.

#### Info for manual annotations of cluster B7:

- Start number 17 was manually annotated 1 time for cluster B7.

#### Info for manual annotations of cluster B8:

- Start number 17 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 17 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster G1:

- Start number 18 was manually annotated 45 times for cluster G1.
- Start number 23 was manually annotated 11 times for cluster G1.
- Start number 26 was manually annotated 2 times for cluster G1.
- Start number 28 was manually annotated 1 time for cluster G1.

Info for manual annotations of cluster G2:

- Start number 18 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G4:

- Start number 18 was manually annotated 1 time for cluster G4.

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

Gene: AbsoluteMadLad\_15 Start: 13646, Stop: 13996, Start Num: 17

Candidate Starts for AbsoluteMadLad\_15:

(Start: 17 @13646 has 223 MA's), (Start: 20 @13697 has 8 MA's), (Start: 22 @13709 has 1 MA's),  
(Start: 23 @13712 has 11 MA's), (25, 13721), (30, 13742), (49, 13937),

Gene: Acadian\_17 Start: 15257, Stop: 15601, Start Num: 17

Candidate Starts for Acadian\_17:

(2, 14912), (3, 14999), (13, 15140), (Start: 17 @15257 has 223 MA's), (Start: 20 @15308 has 8 MA's),  
(24, 15329), (29, 15350), (33, 15389), (38, 15464), (40, 15479), (50, 15563),

Gene: Adriana\_16 Start: 13644, Stop: 13994, Start Num: 17

Candidate Starts for Adriana\_16:

(Start: 17 @13644 has 223 MA's), (Start: 20 @13695 has 8 MA's), (Start: 22 @13707 has 1 MA's),  
(Start: 23 @13710 has 11 MA's), (25, 13719), (30, 13740), (49, 13935),

Gene: Aelin\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for Aelin\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's),  
(Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Ahwei\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for Ahwei\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1 MA's),  
(25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: AlanGrant\_17 Start: 16219, Stop: 16518, Start Num: 22

Candidate Starts for AlanGrant\_17:

(Start: 17 @16153 has 223 MA's), (Start: 20 @16207 has 8 MA's), (Start: 22 @16219 has 1 MA's), (25,  
16231), (29, 16249),

Gene: AltPhacts\_16 Start: 13639, Stop: 13989, Start Num: 17



Candidate Starts for AltPhacts\_16:

(Start: 17 @13639 has 223 MA's), (Start: 20 @13690 has 8 MA's), (Start: 22 @13702 has 1 MA's),  
(Start: 23 @13705 has 11 MA's), (25, 13714), (30, 13735), (49, 13930),

Gene: Altwerkus\_15 Start: 13339, Stop: 13689, Start Num: 17

Candidate Starts for Altwerkus\_15:

(Start: 17 @13339 has 223 MA's), (Start: 20 @13390 has 8 MA's), (Start: 22 @13402 has 1 MA's),  
(Start: 23 @13405 has 11 MA's), (25, 13414), (30, 13435), (49, 13630),

Gene: Angel\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Angel\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Annihilator\_30 Start: 26781, Stop: 27101, Start Num: 18

Candidate Starts for Annihilator\_30:

(Start: 18 @26781 has 49 MA's), (Start: 23 @26844 has 11 MA's), (Start: 26 @26856 has 2 MA's),  
(Start: 28 @26862 has 1 MA's), (29, 26871), (31, 26886), (32, 26907), (33, 26910), (35, 26925), (36,  
26940), (37, 26952), (46, 27030), (51, 27090),

Gene: Antihero\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for Antihero\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1  
MA's), (25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: Antonia\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for Antonia\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's),  
(Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Apex\_16 Start: 15606, Stop: 15926, Start Num: 20

Candidate Starts for Apex\_16:

(Start: 17 @15555 has 223 MA's), (Start: 20 @15606 has 8 MA's), (Start: 22 @15618 has 1 MA's),  
(Start: 23 @15621 has 11 MA's), (25, 15630), (29, 15648), (41, 15804),

Gene: Aroostook\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Aroostook\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Austelle\_17 Start: 16011, Stop: 16382, Start Num: 17

Candidate Starts for Austelle\_17:

(Start: 17 @16011 has 223 MA's), (Start: 20 @16062 has 8 MA's), (Start: 22 @16074 has 1 MA's),  
(Start: 23 @16077 has 11 MA's), (25, 16086), (29, 16104), (41, 16260),

Gene: Avocado\_29 Start: 28477, Stop: 28833, Start Num: 18

Candidate Starts for Avocado\_29:

(7, 28282), (Start: 18 @28477 has 49 MA's), (21, 28528), (27, 28555), (29, 28567), (32, 28603), (33,  
28606), (39, 28693), (43, 28729), (48, 28753),

Gene: Avrafan\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Avrafan\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: AzulaCat\_30 Start: 26865, Stop: 27110, Start Num: 26

Candidate Starts for AzulaCat\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: BPs\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for BPs\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: BQuat\_30 Start: 26781, Stop: 27101, Start Num: 18

Candidate Starts for BQuat\_30:

(Start: 18 @26781 has 49 MA's), (Start: 23 @26844 has 11 MA's), (Start: 26 @26856 has 2 MA's), (Start: 28 @26862 has 1 MA's), (29, 26871), (31, 26886), (32, 26907), (33, 26910), (35, 26925), (36, 26940), (37, 26952), (46, 27030), (51, 27090),

Gene: Bae\_17 Start: 15403, Stop: 15747, Start Num: 17

Candidate Starts for Bae\_17:

(2, 15058), (3, 15145), (13, 15286), (Start: 17 @15403 has 223 MA's), (Start: 20 @15454 has 8 MA's), (24, 15475), (29, 15496), (40, 15625),

Gene: Barkley26\_30 Start: 26875, Stop: 27132, Start Num: 23

Candidate Starts for Barkley26\_30:

(Start: 18 @26812 has 49 MA's), (Start: 23 @26875 has 11 MA's), (Start: 26 @26887 has 2 MA's), (Start: 28 @26893 has 1 MA's), (29, 26902), (31, 26917), (32, 26938), (33, 26941), (35, 26956), (36, 26971), (37, 26983), (46, 27061), (51, 27121),

Gene: Beaglebox\_15 Start: 13363, Stop: 13713, Start Num: 17

Candidate Starts for Beaglebox\_15:

(Start: 17 @13363 has 223 MA's), (Start: 20 @13414 has 8 MA's), (Start: 22 @13426 has 1 MA's), (Start: 23 @13429 has 11 MA's), (25, 13438), (30, 13459), (49, 13654),

Gene: Bishoperium\_15 Start: 13352, Stop: 13702, Start Num: 17

Candidate Starts for Bishoperium\_15:

(Start: 17 @13352 has 223 MA's), (Start: 20 @13403 has 8 MA's), (Start: 22 @13415 has 1 MA's), (Start: 23 @13418 has 11 MA's), (25, 13427), (30, 13448), (49, 13643),

Gene: BlackStallion\_16 Start: 13654, Stop: 14004, Start Num: 17

Candidate Starts for BlackStallion\_16:

(Start: 17 @13654 has 223 MA's), (Start: 20 @13705 has 8 MA's), (Start: 22 @13717 has 1 MA's), (Start: 23 @13720 has 11 MA's), (25, 13729), (30, 13750), (49, 13945),

Gene: BlueHusk\_16 Start: 13635, Stop: 13985, Start Num: 17

Candidate Starts for BlueHusk\_16:

(Start: 17 @13635 has 223 MA's), (Start: 20 @13686 has 8 MA's), (Start: 23 @13701 has 11 MA's), (25, 13710), (30, 13731), (49, 13926),

Gene: Bluephacebaby\_15 Start: 13352, Stop: 13702, Start Num: 17

Candidate Starts for Bluephacebaby\_15:

(Start: 17 @13352 has 223 MA's), (Start: 20 @13403 has 8 MA's), (Start: 22 @13415 has 1 MA's),  
(Start: 23 @13418 has 11 MA's), (25, 13427), (30, 13448), (49, 13643),

Gene: BobbyK\_16 Start: 15425, Stop: 15745, Start Num: 20

Candidate Starts for BobbyK\_16:

(Start: 17 @15374 has 223 MA's), (Start: 20 @15425 has 8 MA's), (Start: 22 @15437 has 1 MA's),  
(Start: 23 @15440 has 11 MA's), (25, 15449), (29, 15467), (41, 15623),

Gene: Boehler\_16 Start: 13662, Stop: 14012, Start Num: 17

Candidate Starts for Boehler\_16:

(Start: 17 @13662 has 223 MA's), (Start: 20 @13713 has 8 MA's), (Start: 22 @13725 has 1 MA's),  
(Start: 23 @13728 has 11 MA's), (25, 13737), (30, 13758), (49, 13953),

Gene: Brilliant\_16 Start: 13356, Stop: 13706, Start Num: 17

Candidate Starts for Brilliant\_16:

(Start: 17 @13356 has 223 MA's), (Start: 20 @13407 has 8 MA's), (Start: 22 @13419 has 1 MA's),  
(Start: 23 @13422 has 11 MA's), (25, 13431), (30, 13452), (49, 13647),

Gene: BrownCNA\_17 Start: 15628, Stop: 15999, Start Num: 17

Candidate Starts for BrownCNA\_17:

(Start: 17 @15628 has 223 MA's), (Start: 20 @15679 has 8 MA's), (Start: 22 @15691 has 1 MA's),  
(Start: 23 @15694 has 11 MA's), (25, 15703), (29, 15721), (41, 15877),

Gene: BruceB\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for BruceB\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Buckeye\_16 Start: 13670, Stop: 14020, Start Num: 17

Candidate Starts for Buckeye\_16:

(Start: 17 @13670 has 223 MA's), (Start: 20 @13721 has 8 MA's), (Start: 22 @13733 has 1 MA's),  
(Start: 23 @13736 has 11 MA's), (25, 13745), (30, 13766), (49, 13961),

Gene: Burr\_15 Start: 13352, Stop: 13702, Start Num: 17

Candidate Starts for Burr\_15:

(Start: 17 @13352 has 223 MA's), (Start: 20 @13403 has 8 MA's), (Start: 22 @13415 has 1 MA's),  
(Start: 23 @13418 has 11 MA's), (25, 13427), (30, 13448), (49, 13643),

Gene: CLED96\_30 Start: 26871, Stop: 27110, Start Num: 28

Candidate Starts for CLED96\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: CamL\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for CamL\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Cambiare\_30 Start: 28945, Stop: 29301, Start Num: 18

Candidate Starts for Cambiare\_30:

(4, 28708), (Start: 18 @28945 has 49 MA's), (21, 28996), (27, 29023), (29, 29035), (32, 29071), (33, 29074), (39, 29161), (43, 29197), (48, 29221),

Gene: CampRoach\_16 Start: 13641, Stop: 13991, Start Num: 17

Candidate Starts for CampRoach\_16:

(Start: 17 @13641 has 223 MA's), (Start: 20 @13692 has 8 MA's), (Start: 22 @13704 has 1 MA's), (Start: 23 @13707 has 11 MA's), (25, 13716), (30, 13737), (49, 13932),

Gene: Camri\_30 Start: 26853, Stop: 27110, Start Num: 23

Candidate Starts for Camri\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Cannibal\_16 Start: 13635, Stop: 13985, Start Num: 17

Candidate Starts for Cannibal\_16:

(Start: 17 @13635 has 223 MA's), (Start: 20 @13686 has 8 MA's), (Start: 22 @13698 has 1 MA's), (Start: 23 @13701 has 11 MA's), (25, 13710), (30, 13731), (49, 13926),

Gene: Carthage\_15 Start: 13313, Stop: 13663, Start Num: 17

Candidate Starts for Carthage\_15:

(Start: 17 @13313 has 223 MA's), (Start: 20 @13364 has 8 MA's), (Start: 22 @13376 has 1 MA's), (Start: 23 @13379 has 11 MA's), (25, 13388), (30, 13409), (34, 13451), (49, 13604),

Gene: CassieYates\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for CassieYates\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Cedasite\_30 Start: 26853, Stop: 27110, Start Num: 23

Candidate Starts for Cedasite\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Chaelin\_15 Start: 13317, Stop: 13667, Start Num: 17

Candidate Starts for Chaelin\_15:

(Start: 17 @13317 has 223 MA's), (Start: 20 @13368 has 8 MA's), (Start: 22 @13380 has 1 MA's), (Start: 23 @13383 has 11 MA's), (25, 13392), (30, 13413), (49, 13608),

Gene: Chance64\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Chance64\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Charles1\_16 Start: 13632, Stop: 13982, Start Num: 17

Candidate Starts for Charles1\_16:

(Start: 17 @13632 has 223 MA's), (Start: 20 @13683 has 8 MA's), (Start: 22 @13695 has 1 MA's), (Start: 23 @13698 has 11 MA's), (25, 13707), (30, 13728), (49, 13923),

Gene: CharlieGBrown\_15 Start: 13221, Stop: 13571, Start Num: 17

Candidate Starts for CharlieGBrown\_15:

(Start: 17 @13221 has 223 MA's), (Start: 20 @13272 has 8 MA's), (Start: 22 @13284 has 1 MA's),  
(Start: 23 @13287 has 11 MA's), (25, 13296), (30, 13317), (49, 13512),

Gene: CheetO\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for CheetO\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Cher\_15 Start: 13375, Stop: 13725, Start Num: 17

Candidate Starts for Cher\_15:

(Start: 17 @13375 has 223 MA's), (Start: 20 @13426 has 8 MA's), (Start: 22 @13438 has 1 MA's),  
(Start: 23 @13441 has 11 MA's), (25, 13450), (30, 13471), (49, 13666),

Gene: Cherrybomb426\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Cherrybomb426\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Childish\_15 Start: 13363, Stop: 13713, Start Num: 17

Candidate Starts for Childish\_15:

(Start: 17 @13363 has 223 MA's), (Start: 20 @13414 has 8 MA's), (Start: 22 @13426 has 1 MA's),  
(Start: 23 @13429 has 11 MA's), (25, 13438), (30, 13459), (49, 13654),

Gene: Chorkpop\_16 Start: 13375, Stop: 13725, Start Num: 17

Candidate Starts for Chorkpop\_16:

(Start: 17 @13375 has 223 MA's), (Start: 20 @13426 has 8 MA's), (Start: 22 @13438 has 1 MA's),  
(Start: 23 @13441 has 11 MA's), (25, 13450), (30, 13471), (49, 13666),

Gene: ChrisnMich\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for ChrisnMich\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1  
MA's), (25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: Chunky\_16 Start: 13662, Stop: 14012, Start Num: 17

Candidate Starts for Chunky\_16:

(Start: 17 @13662 has 223 MA's), (Start: 20 @13713 has 8 MA's), (Start: 23 @13728 has 11 MA's),  
(25, 13737), (30, 13758), (49, 13953),

Gene: Cobra\_16 Start: 13653, Stop: 14003, Start Num: 17

Candidate Starts for Cobra\_16:

(Start: 17 @13653 has 223 MA's), (Start: 20 @13704 has 8 MA's), (Start: 22 @13716 has 1 MA's),  
(Start: 23 @13719 has 11 MA's), (25, 13728), (30, 13749), (49, 13944),

Gene: Coleslaw\_30 Start: 26781, Stop: 27101, Start Num: 18

Candidate Starts for Coleslaw\_30:

(Start: 18 @26781 has 49 MA's), (Start: 23 @26844 has 11 MA's), (Start: 26 @26856 has 2 MA's),  
(Start: 28 @26862 has 1 MA's), (29, 26871), (31, 26886), (32, 26907), (33, 26910), (35, 26925), (36,  
26940), (37, 26952), (46, 27030), (51, 27090),

Gene: Cooper\_16 Start: 14469, Stop: 14792, Start Num: 20

Candidate Starts for Cooper\_16:

(Start: 17 @14418 has 223 MA's), (Start: 20 @14469 has 8 MA's), (Start: 22 @14481 has 1 MA's), (29, 14511), (41, 14667), (47, 14703),

Gene: Cornobble\_15 Start: 13210, Stop: 13560, Start Num: 17

Candidate Starts for Cornobble\_15:

(Start: 17 @13210 has 223 MA's), (Start: 20 @13261 has 8 MA's), (Start: 22 @13273 has 1 MA's), (Start: 23 @13276 has 11 MA's), (25, 13285), (30, 13306), (49, 13501),

Gene: Cosmolli16\_15 Start: 13367, Stop: 13717, Start Num: 17

Candidate Starts for Cosmolli16\_15:

(Start: 17 @13367 has 223 MA's), (Start: 20 @13418 has 8 MA's), (Start: 22 @13430 has 1 MA's), (Start: 23 @13433 has 11 MA's), (25, 13442), (30, 13463), (49, 13658),

Gene: Craff\_16 Start: 13656, Stop: 14006, Start Num: 17

Candidate Starts for Craff\_16:

(Start: 17 @13656 has 223 MA's), (Start: 20 @13707 has 8 MA's), (Start: 22 @13719 has 1 MA's), (Start: 23 @13722 has 11 MA's), (25, 13731), (30, 13752), (49, 13947),

Gene: Crespo\_30 Start: 26866, Stop: 27111, Start Num: 26

Candidate Starts for Crespo\_30:

(Start: 18 @26791 has 49 MA's), (Start: 23 @26854 has 11 MA's), (Start: 26 @26866 has 2 MA's), (Start: 28 @26872 has 1 MA's), (29, 26881), (31, 26896), (32, 26917), (33, 26920), (35, 26935), (36, 26950), (37, 26962), (46, 27040), (51, 27100),

Gene: Crownjwl\_16 Start: 13423, Stop: 13773, Start Num: 17

Candidate Starts for Crownjwl\_16:

(Start: 17 @13423 has 223 MA's), (Start: 20 @13474 has 8 MA's), (Start: 23 @13489 has 11 MA's), (25, 13498), (30, 13519), (49, 13714),

Gene: DMoney\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for DMoney\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: DNAlll\_0030 Start: 26604, Stop: 26861, Start Num: 23

Candidate Starts for DNAlll\_0030:

(Start: 18 @26541 has 49 MA's), (Start: 23 @26604 has 11 MA's), (Start: 26 @26616 has 2 MA's), (Start: 28 @26622 has 1 MA's), (29, 26631), (31, 26646), (32, 26667), (33, 26670), (35, 26685), (36, 26700), (37, 26712), (46, 26790), (51, 26850),

Gene: DaddyDaniels\_16 Start: 13359, Stop: 13709, Start Num: 17

Candidate Starts for DaddyDaniels\_16:

(Start: 17 @13359 has 223 MA's), (Start: 20 @13410 has 8 MA's), (Start: 22 @13422 has 1 MA's), (Start: 23 @13425 has 11 MA's), (25, 13434), (30, 13455), (49, 13650),

Gene: Daka\_16 Start: 13653, Stop: 14003, Start Num: 17

Candidate Starts for Daka\_16:

(Start: 17 @13653 has 223 MA's), (Start: 20 @13704 has 8 MA's), (Start: 22 @13716 has 1 MA's), (Start: 23 @13719 has 11 MA's), (25, 13728), (30, 13749), (49, 13944),

Gene: Darionha\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Darionha\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Dati\_16 Start: 13363, Stop: 13713, Start Num: 17

Candidate Starts for Dati\_16:

(Start: 17 @13363 has 223 MA's), (Start: 20 @13414 has 8 MA's), (Start: 22 @13426 has 1 MA's), (Start: 23 @13429 has 11 MA's), (25, 13438), (30, 13459), (49, 13654),

Gene: Derpp\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for Derpp\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's), (Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Dice\_15 Start: 13350, Stop: 13700, Start Num: 17

Candidate Starts for Dice\_15:

(Start: 17 @13350 has 223 MA's), (Start: 20 @13401 has 8 MA's), (Start: 22 @13413 has 1 MA's), (Start: 23 @13416 has 11 MA's), (25, 13425), (30, 13446), (49, 13641),

Gene: DigitDog\_18 Start: 15284, Stop: 15568, Start Num: 20

Candidate Starts for DigitDog\_18:

(2, 14888), (3, 14975), (13, 15116), (Start: 17 @15233 has 223 MA's), (Start: 20 @15284 has 8 MA's), (24, 15305), (29, 15326), (33, 15365), (38, 15440), (40, 15455),

Gene: Dingo\_16 Start: 13635, Stop: 13985, Start Num: 17

Candidate Starts for Dingo\_16:

(Start: 17 @13635 has 223 MA's), (Start: 20 @13686 has 8 MA's), (Start: 23 @13701 has 11 MA's), (25, 13710), (30, 13731), (49, 13926),

Gene: Dione\_15 Start: 13351, Stop: 13701, Start Num: 17

Candidate Starts for Dione\_15:

(Start: 17 @13351 has 223 MA's), (Start: 20 @13402 has 8 MA's), (Start: 22 @13414 has 1 MA's), (Start: 23 @13417 has 11 MA's), (25, 13426), (30, 13447), (49, 13642),

Gene: DirtJuice\_16 Start: 13638, Stop: 13988, Start Num: 17

Candidate Starts for DirtJuice\_16:

(Start: 17 @13638 has 223 MA's), (Start: 20 @13689 has 8 MA's), (Start: 23 @13704 has 11 MA's), (25, 13713), (30, 13734), (49, 13929),

Gene: DoesntMatter\_16 Start: 13632, Stop: 13982, Start Num: 17

Candidate Starts for DoesntMatter\_16:

(Start: 17 @13632 has 223 MA's), (Start: 20 @13683 has 8 MA's), (Start: 22 @13695 has 1 MA's), (Start: 23 @13698 has 11 MA's), (25, 13707), (30, 13728), (49, 13923),

Gene: DonSanchon\_15 Start: 13351, Stop: 13701, Start Num: 17

Candidate Starts for DonSanchon\_15:

(Start: 17 @13351 has 223 MA's), (Start: 20 @13402 has 8 MA's), (Start: 22 @13414 has 1 MA's), (Start: 23 @13417 has 11 MA's), (25, 13426), (30, 13447), (49, 13642),

Gene: Donny\_17 Start: 15259, Stop: 15603, Start Num: 17

Candidate Starts for Donny\_17:

(2, 14914), (3, 15001), (13, 15142), (Start: 17 @15259 has 223 MA's), (Start: 20 @15310 has 8 MA's), (24, 15331), (29, 15352), (33, 15391), (38, 15466), (40, 15481), (50, 15565),

Gene: Duggie\_15 Start: 13365, Stop: 13715, Start Num: 17

Candidate Starts for Duggie\_15:

(Start: 17 @13365 has 223 MA's), (Start: 20 @13416 has 8 MA's), (Start: 22 @13428 has 1 MA's), (Start: 23 @13431 has 11 MA's), (25, 13440), (30, 13461), (49, 13656),

Gene: Durga\_16 Start: 13664, Stop: 14014, Start Num: 17

Candidate Starts for Durga\_16:

(Start: 17 @13664 has 223 MA's), (Start: 20 @13715 has 8 MA's), (Start: 22 @13727 has 1 MA's), (Start: 23 @13730 has 11 MA's), (25, 13739), (30, 13760), (49, 13955),

Gene: ECartman\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for ECartman\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: EastView9101\_17 Start: 15313, Stop: 15612, Start Num: 20

Candidate Starts for EastView9101\_17:

(2, 14920), (3, 15007), (Start: 17 @15262 has 223 MA's), (Start: 20 @15313 has 8 MA's), (24, 15334), (29, 15355), (33, 15394), (38, 15469), (40, 15484),

Gene: Emiris\_16 Start: 13645, Stop: 13995, Start Num: 17

Candidate Starts for Emiris\_16:

(Start: 17 @13645 has 223 MA's), (Start: 20 @13696 has 8 MA's), (Start: 22 @13708 has 1 MA's), (Start: 23 @13711 has 11 MA's), (25, 13720), (30, 13741), (49, 13936),

Gene: EmpTee\_16 Start: 13651, Stop: 14001, Start Num: 17

Candidate Starts for EmpTee\_16:

(Start: 17 @13651 has 223 MA's), (Start: 20 @13702 has 8 MA's), (Start: 22 @13714 has 1 MA's), (Start: 23 @13717 has 11 MA's), (25, 13726), (30, 13747), (49, 13942),

Gene: Epah\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for Epah\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1 MA's), (25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: Fanaw\_16 Start: 15455, Stop: 15775, Start Num: 20

Candidate Starts for Fanaw\_16:

(Start: 17 @15404 has 223 MA's), (Start: 20 @15455 has 8 MA's), (Start: 22 @15467 has 1 MA's), (Start: 23 @15470 has 11 MA's), (25, 15479), (29, 15497), (33, 15536), (41, 15653),

Gene: FlagStaff\_29 Start: 28264, Stop: 28620, Start Num: 18

Candidate Starts for FlagStaff\_29:

(Start: 18 @28264 has 49 MA's), (27, 28342), (29, 28354), (32, 28390), (33, 28393), (39, 28480), (43, 28516), (48, 28540), (52, 28597),

Gene: Fortunato\_16 Start: 15368, Stop: 15739, Start Num: 17

Candidate Starts for Fortunato\_16:

(Start: 17 @15368 has 223 MA's), (Start: 20 @15419 has 8 MA's), (Start: 22 @15431 has 1 MA's), (Start: 23 @15434 has 11 MA's), (25, 15443), (29, 15461), (41, 15617),



Gene: Fozzie\_15 Start: 13660, Stop: 14010, Start Num: 17

Candidate Starts for Fozzie\_15:

(Start: 17 @13660 has 223 MA's), (Start: 20 @13711 has 8 MA's), (Start: 22 @13723 has 1 MA's),  
(Start: 23 @13726 has 11 MA's), (25, 13735), (30, 13756), (49, 13951),

Gene: Frankicide\_16 Start: 13652, Stop: 14002, Start Num: 17

Candidate Starts for Frankicide\_16:

(Start: 17 @13652 has 223 MA's), (Start: 20 @13703 has 8 MA's), (Start: 22 @13715 has 1 MA's),  
(Start: 23 @13718 has 11 MA's), (25, 13727), (30, 13748), (49, 13943),

Gene: Frederick\_16 Start: 15377, Stop: 15748, Start Num: 17

Candidate Starts for Frederick\_16:

(Start: 17 @15377 has 223 MA's), (Start: 20 @15428 has 8 MA's), (Start: 22 @15440 has 1 MA's),  
(Start: 23 @15443 has 11 MA's), (25, 15452), (29, 15470), (41, 15626),

Gene: Freya\_15 Start: 13346, Stop: 13696, Start Num: 17

Candidate Starts for Freya\_15:

(Start: 17 @13346 has 223 MA's), (Start: 20 @13397 has 8 MA's), (Start: 22 @13409 has 1 MA's),  
(Start: 23 @13412 has 11 MA's), (25, 13421), (30, 13442), (49, 13637),

Gene: FriarPreacher\_16 Start: 13671, Stop: 14021, Start Num: 17

Candidate Starts for FriarPreacher\_16:

(Start: 17 @13671 has 223 MA's), (Start: 20 @13722 has 8 MA's), (Start: 22 @13734 has 1 MA's),  
(Start: 23 @13737 has 11 MA's), (25, 13746), (30, 13767), (49, 13962),

Gene: Fringe\_16 Start: 13633, Stop: 13983, Start Num: 17

Candidate Starts for Fringe\_16:

(Start: 17 @13633 has 223 MA's), (Start: 20 @13684 has 8 MA's), (Start: 22 @13696 has 1 MA's),  
(Start: 23 @13699 has 11 MA's), (25, 13708), (30, 13729), (49, 13924),

Gene: Frosty24\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Frosty24\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: FugateOSU\_15 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for FugateOSU\_15:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Gareth\_15 Start: 13354, Stop: 13704, Start Num: 17

Candidate Starts for Gareth\_15:

(Start: 17 @13354 has 223 MA's), (Start: 20 @13405 has 8 MA's), (Start: 22 @13417 has 1 MA's),  
(Start: 23 @13420 has 11 MA's), (25, 13429), (30, 13450), (49, 13645),

Gene: GeneCoco\_16 Start: 13656, Stop: 14006, Start Num: 17

Candidate Starts for GeneCoco\_16:

(Start: 17 @13656 has 223 MA's), (Start: 20 @13707 has 8 MA's), (Start: 22 @13719 has 1 MA's),  
(Start: 23 @13722 has 11 MA's), (25, 13731), (30, 13752), (49, 13947),

Gene: Gideon\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Gideon\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: GinPorsche\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for GinPorsche\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1 MA's), (25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: Giraffe\_16 Start: 13358, Stop: 13708, Start Num: 17

Candidate Starts for Giraffe\_16:

(Start: 17 @13358 has 223 MA's), (Start: 20 @13409 has 8 MA's), (Start: 22 @13421 has 1 MA's), (Start: 23 @13424 has 11 MA's), (25, 13433), (30, 13454), (49, 13649),

Gene: GoldenAsh\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for GoldenAsh\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Gomashi\_30 Start: 26791, Stop: 27111, Start Num: 18

Candidate Starts for Gomashi\_30:

(Start: 18 @26791 has 49 MA's), (Start: 23 @26854 has 11 MA's), (Start: 26 @26866 has 2 MA's), (Start: 28 @26872 has 1 MA's), (29, 26881), (31, 26896), (32, 26917), (33, 26920), (35, 26935), (36, 26950), (37, 26962), (46, 27040), (51, 27100),

Gene: Grand2040\_15 Start: 13373, Stop: 13723, Start Num: 17

Candidate Starts for Grand2040\_15:

(Start: 17 @13373 has 223 MA's), (Start: 20 @13424 has 8 MA's), (Start: 22 @13436 has 1 MA's), (Start: 23 @13439 has 11 MA's), (25, 13448), (30, 13469), (49, 13664),

Gene: Grizzly\_30 Start: 26853, Stop: 27110, Start Num: 23

Candidate Starts for Grizzly\_30:

(15, 26727), (Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Gwilliam\_16 Start: 13647, Stop: 13997, Start Num: 17

Candidate Starts for Gwilliam\_16:

(Start: 17 @13647 has 223 MA's), (Start: 20 @13698 has 8 MA's), (Start: 22 @13710 has 1 MA's), (Start: 23 @13713 has 11 MA's), (25, 13722), (30, 13743), (49, 13938),

Gene: Gyarad\_0016 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Gyarad\_0016:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's), (Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: HSavage\_16 Start: 13658, Stop: 14008, Start Num: 17

Candidate Starts for HSavage\_16:

(Start: 17 @13658 has 223 MA's), (Start: 20 @13709 has 8 MA's), (Start: 22 @13721 has 1 MA's), (Start: 23 @13724 has 11 MA's), (25, 13733), (30, 13754), (49, 13949),

Gene: Haimas\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Haimas\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Haleema\_15 Start: 13375, Stop: 13725, Start Num: 17

Candidate Starts for Haleema\_15:

(Start: 17 @13375 has 223 MA's), (Start: 20 @13426 has 8 MA's), (Start: 22 @13438 has 1 MA's),  
(Start: 23 @13441 has 11 MA's), (25, 13450), (30, 13471), (49, 13666),

Gene: Hally898\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for Hally898\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1  
MA's), (25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: Halo\_30 Start: 26785, Stop: 27105, Start Num: 18

Candidate Starts for Halo\_30:

(Start: 18 @26785 has 49 MA's), (Start: 23 @26848 has 11 MA's), (Start: 26 @26860 has 2 MA's),  
(Start: 28 @26866 has 1 MA's), (29, 26875), (31, 26890), (32, 26911), (33, 26914), (35, 26929), (36,  
26944), (37, 26956), (46, 27034), (51, 27094),

Gene: Hangman\_16 Start: 15377, Stop: 15748, Start Num: 17

Candidate Starts for Hangman\_16:

(Start: 17 @15377 has 223 MA's), (Start: 20 @15428 has 8 MA's), (Start: 22 @15440 has 1 MA's),  
(Start: 23 @15443 has 11 MA's), (25, 15452), (29, 15470), (33, 15509), (41, 15626),

Gene: Hartsy\_16 Start: 13647, Stop: 13997, Start Num: 17

Candidate Starts for Hartsy\_16:

(Start: 17 @13647 has 223 MA's), (Start: 20 @13698 has 8 MA's), (Start: 22 @13710 has 1 MA's),  
(Start: 23 @13713 has 11 MA's), (25, 13722), (30, 13743), (49, 13938),

Gene: Heath\_16 Start: 15374, Stop: 15745, Start Num: 17

Candidate Starts for Heath\_16:

(Start: 17 @15374 has 223 MA's), (Start: 20 @15425 has 8 MA's), (Start: 22 @15437 has 1 MA's),  
(Start: 23 @15440 has 11 MA's), (25, 15449), (29, 15467), (33, 15506), (41, 15623),

Gene: Held\_16 Start: 13358, Stop: 13708, Start Num: 17

Candidate Starts for Held\_16:

(Start: 17 @13358 has 223 MA's), (Start: 20 @13409 has 8 MA's), (Start: 22 @13421 has 1 MA's),  
(Start: 23 @13424 has 11 MA's), (25, 13433), (30, 13454), (49, 13649),

Gene: HenryJackson\_15 Start: 13372, Stop: 13722, Start Num: 17

Candidate Starts for HenryJackson\_15:

(Start: 17 @13372 has 223 MA's), (Start: 20 @13423 has 8 MA's), (Start: 22 @13435 has 1 MA's),  
(Start: 23 @13438 has 11 MA's), (25, 13447), (30, 13468), (49, 13663),

Gene: Hertubise\_16 Start: 13665, Stop: 14015, Start Num: 17

Candidate Starts for Hertubise\_16:

(Start: 17 @13665 has 223 MA's), (Start: 20 @13716 has 8 MA's), (Start: 22 @13728 has 1 MA's),  
(Start: 23 @13731 has 11 MA's), (25, 13740), (30, 13761), (49, 13956),

Gene: Hetaeria\_16 Start: 13668, Stop: 14018, Start Num: 17

Candidate Starts for Hetaeria\_16:

(Start: 17 @13668 has 223 MA's), (Start: 20 @13719 has 8 MA's), (Start: 22 @13731 has 1 MA's),  
(Start: 23 @13734 has 11 MA's), (25, 13743), (30, 13764), (49, 13959),

Gene: HighStump\_15 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for HighStump\_15:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Hocus\_15 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for Hocus\_15:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Hope\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Hope\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Horchata\_16 Start: 13637, Stop: 13987, Start Num: 17

Candidate Starts for Horchata\_16:

(Start: 17 @13637 has 223 MA's), (Start: 20 @13688 has 8 MA's), (Start: 23 @13703 has 11 MA's),  
(25, 13712), (30, 13733), (49, 13928),

Gene: Hotshotbaby7\_30 Start: 26853, Stop: 27110, Start Num: 23

Candidate Starts for Hotshotbaby7\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Hydro\_16 Start: 15374, Stop: 15745, Start Num: 17

Candidate Starts for Hydro\_16:

(Start: 17 @15374 has 223 MA's), (Start: 20 @15425 has 8 MA's), (Start: 22 @15437 has 1 MA's),  
(Start: 23 @15440 has 11 MA's), (25, 15449), (29, 15467), (33, 15506), (41, 15623),

Gene: Inchworm\_16 Start: 13641, Stop: 13991, Start Num: 17

Candidate Starts for Inchworm\_16:

(Start: 17 @13641 has 223 MA's), (Start: 20 @13692 has 8 MA's), (Start: 22 @13704 has 1 MA's),  
(Start: 23 @13707 has 11 MA's), (25, 13716), (30, 13737), (49, 13932),

Gene: JAMaL\_16 Start: 15558, Stop: 15929, Start Num: 17

Candidate Starts for JAMaL\_16:

(Start: 17 @15558 has 223 MA's), (Start: 20 @15609 has 8 MA's), (Start: 22 @15621 has 1 MA's), (25,  
15633), (33, 15690), (34, 15696), (41, 15807), (42, 15816), (47, 15840),

Gene: JacAttac\_16 Start: 13641, Stop: 13991, Start Num: 17

Candidate Starts for JacAttac\_16:

(Start: 17 @13641 has 223 MA's), (Start: 20 @13692 has 8 MA's), (Start: 22 @13704 has 1 MA's),  
(Start: 23 @13707 has 11 MA's), (25, 13716), (30, 13737), (49, 13932),

Gene: JaguarMi\_17 Start: 15255, Stop: 15575, Start Num: 20

Candidate Starts for JaguarMi\_17:

(Start: 17 @15204 has 223 MA's), (Start: 20 @15255 has 8 MA's), (Start: 22 @15267 has 1 MA's), (25, 15279), (29, 15297), (33, 15336), (41, 15453),

Gene: JakeO\_15 Start: 13365, Stop: 13715, Start Num: 17

Candidate Starts for JakeO\_15:

(Start: 17 @13365 has 223 MA's), (Start: 20 @13416 has 8 MA's), (Start: 22 @13428 has 1 MA's), (Start: 23 @13431 has 11 MA's), (25, 13440), (30, 13461), (49, 13656),

Gene: Jane\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Jane\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: JangoPhett\_16 Start: 13642, Stop: 13992, Start Num: 17

Candidate Starts for JangoPhett\_16:

(Start: 17 @13642 has 223 MA's), (Start: 20 @13693 has 8 MA's), (Start: 22 @13705 has 1 MA's), (Start: 23 @13708 has 11 MA's), (25, 13717), (30, 13738), (49, 13933),

Gene: Jillium\_15 Start: 13363, Stop: 13713, Start Num: 17

Candidate Starts for Jillium\_15:

(Start: 17 @13363 has 223 MA's), (Start: 20 @13414 has 8 MA's), (Start: 22 @13426 has 1 MA's), (Start: 23 @13429 has 11 MA's), (25, 13438), (30, 13459), (49, 13654),

Gene: Jiminy\_15 Start: 13205, Stop: 13555, Start Num: 17

Candidate Starts for Jiminy\_15:

(Start: 17 @13205 has 223 MA's), (Start: 20 @13256 has 8 MA's), (Start: 22 @13268 has 1 MA's), (Start: 23 @13271 has 11 MA's), (25, 13280), (30, 13301), (49, 13496),

Gene: Jiraiya\_15 Start: 13365, Stop: 13715, Start Num: 17

Candidate Starts for Jiraiya\_15:

(Start: 17 @13365 has 223 MA's), (Start: 20 @13416 has 8 MA's), (Start: 23 @13431 has 11 MA's), (25, 13440), (30, 13461), (49, 13656),

Gene: Jolene\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Jolene\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Jonghyun\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Jonghyun\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: JorRay\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for JorRay\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Kahve\_15 Start: 13372, Stop: 13722, Start Num: 17

Candidate Starts for Kahve\_15:

(Start: 17 @13372 has 223 MA's), (Start: 20 @13423 has 8 MA's), (Start: 22 @13435 has 1 MA's),  
(Start: 23 @13438 has 11 MA's), (25, 13447), (30, 13468), (49, 13663),

Gene: Kailash\_16 Start: 13659, Stop: 14009, Start Num: 17

Candidate Starts for Kailash\_16:

(Start: 17 @13659 has 223 MA's), (Start: 20 @13710 has 8 MA's), (Start: 22 @13722 has 1 MA's),  
(Start: 23 @13725 has 11 MA's), (25, 13734), (30, 13755), (49, 13950),

Gene: KarasumaRum\_19 Start: 15482, Stop: 15724, Start Num: 29

Candidate Starts for KarasumaRum\_19:

(3, 15131), (13, 15272), (Start: 17 @15389 has 223 MA's), (Start: 20 @15440 has 8 MA's), (24, 15461),  
(29, 15482), (33, 15521), (38, 15596), (40, 15611),

Gene: Kareem\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Kareem\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Kasen3\_30 Start: 26854, Stop: 27111, Start Num: 23

Candidate Starts for Kasen3\_30:

(Start: 18 @26791 has 49 MA's), (Start: 23 @26854 has 11 MA's), (Start: 26 @26866 has 2 MA's),  
(Start: 28 @26872 has 1 MA's), (29, 26881), (31, 26896), (32, 26917), (33, 26920), (35, 26935), (36,  
26950), (37, 26962), (46, 27040), (51, 27100),

Gene: Keitherie\_16 Start: 13670, Stop: 14020, Start Num: 17

Candidate Starts for Keitherie\_16:

(Start: 17 @13670 has 223 MA's), (Start: 20 @13721 has 8 MA's), (Start: 22 @13733 has 1 MA's),  
(Start: 23 @13736 has 11 MA's), (25, 13745), (30, 13766), (49, 13961),

Gene: Kimbrough\_16 Start: 13360, Stop: 13710, Start Num: 17

Candidate Starts for Kimbrough\_16:

(Start: 17 @13360 has 223 MA's), (Start: 20 @13411 has 8 MA's), (Start: 22 @13423 has 1 MA's),  
(Start: 23 @13426 has 11 MA's), (25, 13435), (30, 13456), (49, 13651),

Gene: KingTut\_15 Start: 13352, Stop: 13702, Start Num: 17

Candidate Starts for KingTut\_15:

(Start: 17 @13352 has 223 MA's), (Start: 20 @13403 has 8 MA's), (Start: 22 @13415 has 1 MA's),  
(Start: 23 @13418 has 11 MA's), (25, 13427), (30, 13448), (49, 13643),

Gene: KingVeVeVe\_16 Start: 13639, Stop: 13989, Start Num: 17

Candidate Starts for KingVeVeVe\_16:

(Start: 17 @13639 has 223 MA's), (Start: 20 @13690 has 8 MA's), (Start: 23 @13705 has 11 MA's),  
(25, 13714), (30, 13735), (49, 13930),

Gene: KlimbOn\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for KlimbOn\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Kloppinator\_16 Start: 13666, Stop: 14016, Start Num: 17

Candidate Starts for Kloppinator\_16:

(Start: 17 @13666 has 223 MA's), (Start: 20 @13717 has 8 MA's), (Start: 22 @13729 has 1 MA's), (Start: 23 @13732 has 11 MA's), (25, 13741), (30, 13762), (49, 13957),

Gene: Kwadwo\_15 Start: 13351, Stop: 13701, Start Num: 17

Candidate Starts for Kwadwo\_15:

(Start: 17 @13351 has 223 MA's), (Start: 20 @13402 has 8 MA's), (Start: 22 @13414 has 1 MA's), (Start: 23 @13417 has 11 MA's), (25, 13426), (30, 13447), (49, 13642),

Gene: Kwksand96\_15 Start: 13215, Stop: 13565, Start Num: 17

Candidate Starts for Kwksand96\_15:

(Start: 17 @13215 has 223 MA's), (Start: 20 @13266 has 8 MA's), (Start: 22 @13278 has 1 MA's), (Start: 23 @13281 has 11 MA's), (25, 13290), (30, 13311), (49, 13506),

Gene: Labeouficaum\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for Labeouficaum\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's), (Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Lambano\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for Lambano\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1 MA's), (25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: LasagnaCat\_16 Start: 13653, Stop: 14003, Start Num: 17

Candidate Starts for LasagnaCat\_16:

(Start: 17 @13653 has 223 MA's), (Start: 20 @13704 has 8 MA's), (Start: 22 @13716 has 1 MA's), (Start: 23 @13719 has 11 MA's), (25, 13728), (30, 13749), (49, 13944),

Gene: LeeLot\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for LeeLot\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's), (Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Lego3393\_16 Start: 13666, Stop: 14016, Start Num: 17

Candidate Starts for Lego3393\_16:

(Start: 17 @13666 has 223 MA's), (Start: 20 @13717 has 8 MA's), (Start: 22 @13729 has 1 MA's), (Start: 23 @13732 has 11 MA's), (25, 13741), (30, 13762), (49, 13957),

Gene: Legolas\_15 Start: 13367, Stop: 13717, Start Num: 17

Candidate Starts for Legolas\_15:

(Start: 17 @13367 has 223 MA's), (Start: 20 @13418 has 8 MA's), (Start: 22 @13430 has 1 MA's), (Start: 23 @13433 has 11 MA's), (25, 13442), (30, 13463), (49, 13658),

Gene: LemonSlice\_16 Start: 13361, Stop: 13711, Start Num: 17

Candidate Starts for LemonSlice\_16:

(Start: 17 @13361 has 223 MA's), (Start: 20 @13412 has 8 MA's), (Start: 22 @13424 has 1 MA's), (Start: 23 @13427 has 11 MA's), (25, 13436), (30, 13457), (49, 13652),

Gene: Liefie\_30 Start: 26788, Stop: 27108, Start Num: 18

Candidate Starts for Liefie\_30:

(Start: 18 @26788 has 49 MA's), (Start: 23 @26851 has 11 MA's), (Start: 26 @26863 has 2 MA's), (Start: 28 @26869 has 1 MA's), (29, 26878), (31, 26893), (32, 26914), (33, 26917), (35, 26932), (36, 26947), (37, 26959), (46, 27037), (51, 27097),

Gene: Lolalove\_16 Start: 15374, Stop: 15745, Start Num: 17

Candidate Starts for Lolalove\_16:

(Start: 17 @15374 has 223 MA's), (Start: 20 @15425 has 8 MA's), (Start: 22 @15437 has 1 MA's),  
(Start: 23 @15440 has 11 MA's), (25, 15449), (29, 15467), (41, 15623),

Gene: LostAndPhound\_15 Start: 13363, Stop: 13713, Start Num: 17

Candidate Starts for LostAndPhound\_15:

(Start: 17 @13363 has 223 MA's), (Start: 20 @13414 has 8 MA's), (Start: 22 @13426 has 1 MA's),  
(Start: 23 @13429 has 11 MA's), (25, 13438), (30, 13459), (49, 13654),

Gene: LouisV14\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for LouisV14\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: LuckyMarjie\_15 Start: 13375, Stop: 13725, Start Num: 17

Candidate Starts for LuckyMarjie\_15:

(Start: 17 @13375 has 223 MA's), (Start: 20 @13426 has 8 MA's), (Start: 22 @13438 has 1 MA's),  
(Start: 23 @13441 has 11 MA's), (25, 13450), (30, 13471), (49, 13666),

Gene: Lulumae\_15 Start: 13352, Stop: 13702, Start Num: 17

Candidate Starts for Lulumae\_15:

(Start: 17 @13352 has 223 MA's), (Start: 20 @13403 has 8 MA's), (Start: 22 @13415 has 1 MA's),  
(Start: 23 @13418 has 11 MA's), (25, 13427), (30, 13448), (49, 13643),

Gene: Lulwa\_16 Start: 13641, Stop: 13991, Start Num: 17

Candidate Starts for Lulwa\_16:

(Start: 17 @13641 has 223 MA's), (Start: 20 @13692 has 8 MA's), (Start: 23 @13707 has 11 MA's),  
(25, 13716), (30, 13737), (49, 13932),

Gene: Lumine\_15 Start: 13345, Stop: 13695, Start Num: 17

Candidate Starts for Lumine\_15:

(Start: 17 @13345 has 223 MA's), (Start: 20 @13396 has 8 MA's), (Start: 22 @13408 has 1 MA's),  
(Start: 23 @13411 has 11 MA's), (25, 13420), (30, 13441), (49, 13636),

Gene: MRabcd\_15 Start: 13354, Stop: 13704, Start Num: 17

Candidate Starts for MRabcd\_15:

(Start: 17 @13354 has 223 MA's), (Start: 20 @13405 has 8 MA's), (Start: 22 @13417 has 1 MA's),  
(Start: 23 @13420 has 11 MA's), (25, 13429), (30, 13450), (49, 13645),

Gene: Mag7\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for Mag7\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's),  
(Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Magic8\_16 Start: 13647, Stop: 13997, Start Num: 17

Candidate Starts for Magic8\_16:

(Start: 17 @13647 has 223 MA's), (Start: 20 @13698 has 8 MA's), (Start: 22 @13710 has 1 MA's),  
(Start: 23 @13713 has 11 MA's), (25, 13722), (30, 13743), (49, 13938),

Gene: Magpie\_16 Start: 15559, Stop: 15933, Start Num: 17



Candidate Starts for Magpie\_16:

(Start: 17 @15559 has 223 MA's), (Start: 20 @15610 has 8 MA's), (Start: 22 @15622 has 1 MA's),  
(Start: 23 @15625 has 11 MA's), (25, 15634), (29, 15652), (41, 15808),

Gene: Maliketh\_30 Start: 26865, Stop: 27110, Start Num: 26

Candidate Starts for Maliketh\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Marmie\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Marmie\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Maru\_15 Start: 13355, Stop: 13705, Start Num: 17

Candidate Starts for Maru\_15:

(Start: 17 @13355 has 223 MA's), (Start: 20 @13406 has 8 MA's), (Start: 22 @13418 has 1 MA's),  
(Start: 23 @13421 has 11 MA's), (25, 13430), (30, 13451), (49, 13646),

Gene: Matalotodo\_16 Start: 13645, Stop: 13995, Start Num: 17

Candidate Starts for Matalotodo\_16:

(Start: 17 @13645 has 223 MA's), (Start: 20 @13696 has 8 MA's), (Start: 22 @13708 has 1 MA's),  
(Start: 23 @13711 has 11 MA's), (25, 13720), (30, 13741), (49, 13936),

Gene: Mcshane\_15 Start: 13351, Stop: 13701, Start Num: 17

Candidate Starts for Mcshane\_15:

(Start: 17 @13351 has 223 MA's), (Start: 20 @13402 has 8 MA's), (Start: 22 @13414 has 1 MA's),  
(Start: 23 @13417 has 11 MA's), (25, 13426), (30, 13447), (49, 13642),

Gene: Mecca\_15 Start: 13348, Stop: 13698, Start Num: 17

Candidate Starts for Mecca\_15:

(Start: 17 @13348 has 223 MA's), (Start: 20 @13399 has 8 MA's), (Start: 22 @13411 has 1 MA's),  
(Start: 23 @13414 has 11 MA's), (25, 13423), (30, 13444), (49, 13639),

Gene: Melc17\_16 Start: 13641, Stop: 13991, Start Num: 17

Candidate Starts for Melc17\_16:

(Start: 17 @13641 has 223 MA's), (Start: 20 @13692 has 8 MA's), (Start: 22 @13704 has 1 MA's),  
(Start: 23 @13707 has 11 MA's), (25, 13716), (30, 13737), (49, 13932),

Gene: Mercurio\_32 Start: 28993, Stop: 29313, Start Num: 18

Candidate Starts for Mercurio\_32:

(Start: 18 @28993 has 49 MA's), (27, 29071), (29, 29083), (32, 29119), (33, 29122), (35, 29137), (39,  
29209), (43, 29245),

Gene: Mesh1\_16 Start: 13659, Stop: 14009, Start Num: 17

Candidate Starts for Mesh1\_16:

(Start: 17 @13659 has 223 MA's), (Start: 20 @13710 has 8 MA's), (Start: 22 @13722 has 1 MA's),  
(Start: 23 @13725 has 11 MA's), (25, 13734), (30, 13755), (49, 13950),

Gene: MichaelPhcott\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for MichaelPhcott\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's), (Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Mikota\_16 Start: 13636, Stop: 13986, Start Num: 17

Candidate Starts for Mikota\_16:

(Start: 17 @13636 has 223 MA's), (Start: 20 @13687 has 8 MA's), (Start: 23 @13702 has 11 MA's), (25, 13711), (30, 13732), (49, 13927),

Gene: MiniBoss\_16 Start: 13638, Stop: 13988, Start Num: 17

Candidate Starts for MiniBoss\_16:

(Start: 17 @13638 has 223 MA's), (Start: 20 @13689 has 8 MA's), (Start: 23 @13704 has 11 MA's), (25, 13713), (30, 13734), (49, 13929),

Gene: MitKao\_16 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for MitKao\_16:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's), (Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Mithril\_16 Start: 15377, Stop: 15748, Start Num: 17

Candidate Starts for Mithril\_16:

(Start: 17 @15377 has 223 MA's), (Start: 20 @15428 has 8 MA's), (Start: 22 @15440 has 1 MA's), (Start: 23 @15443 has 11 MA's), (25, 15452), (29, 15470), (41, 15626),

Gene: Morty\_16 Start: 13659, Stop: 14009, Start Num: 17

Candidate Starts for Morty\_16:

(Start: 17 @13659 has 223 MA's), (Start: 20 @13710 has 8 MA's), (Start: 22 @13722 has 1 MA's), (Start: 23 @13725 has 11 MA's), (25, 13734), (30, 13755), (49, 13950),

Gene: Mosaic\_15 Start: 13364, Stop: 13714, Start Num: 17

Candidate Starts for Mosaic\_15:

(Start: 17 @13364 has 223 MA's), (Start: 20 @13415 has 8 MA's), (Start: 22 @13427 has 1 MA's), (Start: 23 @13430 has 11 MA's), (25, 13439), (30, 13460), (49, 13655),

Gene: Mowgli\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Mowgli\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Mudslide\_16 Start: 15622, Stop: 15993, Start Num: 17

Candidate Starts for Mudslide\_16:

(Start: 17 @15622 has 223 MA's), (Start: 20 @15673 has 8 MA's), (Start: 22 @15685 has 1 MA's), (Start: 23 @15688 has 11 MA's), (25, 15697), (29, 15715), (41, 15871),

Gene: Mulan\_15 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for Mulan\_15:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's), (Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Mutante\_15 Start: 13360, Stop: 13710, Start Num: 17

Candidate Starts for Mutante\_15:

(Start: 17 @13360 has 223 MA's), (Start: 20 @13411 has 8 MA's), (Start: 22 @13423 has 1 MA's), (Start: 23 @13426 has 11 MA's), (25, 13435), (30, 13456), (49, 13651),

Gene: Mysterious\_18 Start: 15593, Stop: 15844, Start Num: 29

Candidate Starts for Mysterious\_18:

(3, 15242), (13, 15383), (Start: 17 @15500 has 223 MA's), (Start: 20 @15551 has 8 MA's), (24, 15572), (29, 15593), (33, 15632), (38, 15707), (40, 15722),

Gene: Nacho\_0016 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Nacho\_0016:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's), (Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Nanao\_15 Start: 14360, Stop: 14680, Start Num: 20

Candidate Starts for Nanao\_15:

(5, 14099), (8, 14141), (11, 14195), (14, 14225), (16, 14294), (19, 14321), (Start: 20 @14360 has 8 MA's), (Start: 22 @14372 has 1 MA's), (25, 14384), (29, 14402), (34, 14447), (41, 14558),

Gene: Nangang\_17 Start: 15284, Stop: 15568, Start Num: 20

Candidate Starts for Nangang\_17:

(2, 14888), (3, 14975), (13, 15116), (Start: 17 @15233 has 223 MA's), (Start: 20 @15284 has 8 MA's), (24, 15305), (29, 15326), (33, 15365), (38, 15440), (40, 15455),

Gene: Nehemiah\_16 Start: 15551, Stop: 15844, Start Num: 20

Candidate Starts for Nehemiah\_16:

(3, 15242), (13, 15383), (Start: 17 @15500 has 223 MA's), (Start: 20 @15551 has 8 MA's), (24, 15572), (29, 15593), (33, 15632), (38, 15707), (40, 15722),

Gene: Nicole21\_16 Start: 13642, Stop: 13992, Start Num: 17

Candidate Starts for Nicole21\_16:

(Start: 17 @13642 has 223 MA's), (Start: 20 @13693 has 8 MA's), (Start: 22 @13705 has 1 MA's), (Start: 23 @13708 has 11 MA's), (25, 13717), (30, 13738), (49, 13933),

Gene: Nigel\_14 Start: 14277, Stop: 14597, Start Num: 20

Candidate Starts for Nigel\_14:

(Start: 17 @14226 has 223 MA's), (Start: 20 @14277 has 8 MA's), (Start: 22 @14289 has 1 MA's), (25, 14301), (33, 14358), (34, 14364), (41, 14475), (42, 14484), (47, 14508),

Gene: OctaviousRex\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for OctaviousRex\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Olak\_15 Start: 13349, Stop: 13699, Start Num: 17

Candidate Starts for Olak\_15:

(Start: 17 @13349 has 223 MA's), (Start: 20 @13400 has 8 MA's), (Start: 22 @13412 has 1 MA's), (Start: 23 @13415 has 11 MA's), (25, 13424), (30, 13445), (49, 13640),

Gene: Olga\_30 Start: 26853, Stop: 27110, Start Num: 23

Candidate Starts for Olga\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Oline\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for Oline\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's),  
(Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Omniscient\_16 Start: 13659, Stop: 14009, Start Num: 17

Candidate Starts for Omniscient\_16:

(Start: 17 @13659 has 223 MA's), (Start: 20 @13710 has 8 MA's), (Start: 22 @13722 has 1 MA's),  
(Start: 23 @13725 has 11 MA's), (25, 13734), (30, 13755), (49, 13950),

Gene: Orfeu\_15 Start: 13350, Stop: 13700, Start Num: 17

Candidate Starts for Orfeu\_15:

(Start: 17 @13350 has 223 MA's), (Start: 20 @13401 has 8 MA's), (Start: 22 @13413 has 1 MA's),  
(Start: 23 @13416 has 11 MA's), (25, 13425), (30, 13446), (49, 13641),

Gene: Pace1224\_29 Start: 28264, Stop: 28620, Start Num: 18

Candidate Starts for Pace1224\_29:

(Start: 18 @28264 has 49 MA's), (27, 28342), (29, 28354), (32, 28390), (33, 28393), (39, 28480), (43,  
28516), (48, 28540), (52, 28597),

Gene: Pacifista\_15 Start: 13354, Stop: 13704, Start Num: 17

Candidate Starts for Pacifista\_15:

(Start: 17 @13354 has 223 MA's), (Start: 20 @13405 has 8 MA's), (Start: 22 @13417 has 1 MA's),  
(Start: 23 @13420 has 11 MA's), (25, 13429), (30, 13450), (49, 13645),

Gene: Peeb\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Peeb\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Periodt\_30 Start: 26781, Stop: 27101, Start Num: 18

Candidate Starts for Periodt\_30:

(Start: 18 @26781 has 49 MA's), (Start: 23 @26844 has 11 MA's), (Start: 26 @26856 has 2 MA's),  
(Start: 28 @26862 has 1 MA's), (29, 26871), (31, 26886), (32, 26907), (33, 26910), (35, 26925), (36,  
26940), (37, 26952), (46, 27030), (51, 27090),

Gene: Phamished\_16 Start: 13656, Stop: 14006, Start Num: 17

Candidate Starts for Phamished\_16:

(Start: 17 @13656 has 223 MA's), (Start: 20 @13707 has 8 MA's), (Start: 22 @13719 has 1 MA's),  
(Start: 23 @13722 has 11 MA's), (25, 13731), (30, 13752), (49, 13947),

Gene: Phareon\_16 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for Phareon\_16:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: PhatCats2014\_16 Start: 13666, Stop: 14016, Start Num: 17

Candidate Starts for PhatCats2014\_16:

(Start: 17 @13666 has 223 MA's), (Start: 20 @13717 has 8 MA's), (Start: 22 @13729 has 1 MA's),  
(Start: 23 @13732 has 11 MA's), (25, 13741), (30, 13762), (49, 13957),

Gene: Phelemich\_17 Start: 15504, Stop: 15848, Start Num: 17

Candidate Starts for Phelemich\_17:

(3, 15246), (Start: 17 @15504 has 223 MA's), (Start: 20 @15555 has 8 MA's), (24, 15576), (29, 15597), (33, 15636), (38, 15711), (40, 15726),

Gene: PhenghisKhan\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for PhenghisKhan\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's), (Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Pherdinand\_16 Start: 13654, Stop: 14004, Start Num: 17

Candidate Starts for Pherdinand\_16:

(Start: 17 @13654 has 223 MA's), (Start: 20 @13705 has 8 MA's), (Start: 22 @13717 has 1 MA's), (Start: 23 @13720 has 11 MA's), (25, 13729), (30, 13750), (49, 13945),

Gene: Phergie\_15 Start: 13203, Stop: 13553, Start Num: 17

Candidate Starts for Phergie\_15:

(Start: 17 @13203 has 223 MA's), (Start: 20 @13254 has 8 MA's), (Start: 22 @13266 has 1 MA's), (Start: 23 @13269 has 11 MA's), (25, 13278), (30, 13299), (49, 13494),

Gene: Phish\_30 Start: 26865, Stop: 27110, Start Num: 26

Candidate Starts for Phish\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Phleuron\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for Phleuron\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's), (Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: PhrankReynolds\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for PhrankReynolds\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's), (Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: Phreak\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Phreak\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: PhrodoBaggins\_15 Start: 13644, Stop: 13994, Start Num: 17

Candidate Starts for PhrodoBaggins\_15:

(Start: 17 @13644 has 223 MA's), (Start: 20 @13695 has 8 MA's), (Start: 22 @13707 has 1 MA's), (Start: 23 @13710 has 11 MA's), (25, 13719), (30, 13740), (49, 13935),

Gene: Phunky\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Phunky\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's), (Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Piglet\_0015 Start: 13653, Stop: 14003, Start Num: 17

Candidate Starts for Piglet\_0015:

(Start: 17 @13653 has 223 MA's), (Start: 20 @13704 has 8 MA's), (Start: 22 @13716 has 1 MA's),  
(Start: 23 @13719 has 11 MA's), (25, 13728), (30, 13749), (49, 13944),

Gene: PinheadLarry\_16 Start: 13369, Stop: 13719, Start Num: 17

Candidate Starts for PinheadLarry\_16:

(Start: 17 @13369 has 223 MA's), (Start: 20 @13420 has 8 MA's), (Start: 22 @13432 has 1 MA's),  
(Start: 23 @13435 has 11 MA's), (25, 13444), (30, 13465), (49, 13660),

Gene: PinkYoshi\_30 Start: 26781, Stop: 27101, Start Num: 18

Candidate Starts for PinkYoshi\_30:

(Start: 18 @26781 has 49 MA's), (Start: 23 @26844 has 11 MA's), (Start: 26 @26856 has 2 MA's),  
(Start: 28 @26862 has 1 MA's), (29, 26871), (31, 26886), (32, 26907), (33, 26910), (35, 26925), (36,  
26940), (37, 26952), (46, 27030), (51, 27090),

Gene: Pipsqueak\_16 Start: 13656, Stop: 14006, Start Num: 17

Candidate Starts for Pipsqueak\_16:

(Start: 17 @13656 has 223 MA's), (Start: 20 @13707 has 8 MA's), (Start: 22 @13719 has 1 MA's),  
(Start: 23 @13722 has 11 MA's), (25, 13731), (30, 13752), (49, 13947),

Gene: Placalicious\_15 Start: 13351, Stop: 13701, Start Num: 17

Candidate Starts for Placalicious\_15:

(Start: 17 @13351 has 223 MA's), (Start: 20 @13402 has 8 MA's), (Start: 22 @13414 has 1 MA's),  
(Start: 23 @13417 has 11 MA's), (25, 13426), (30, 13447), (49, 13642),

Gene: Plagueis\_30 Start: 26625, Stop: 26945, Start Num: 18

Candidate Starts for Plagueis\_30:

(Start: 18 @26625 has 49 MA's), (Start: 23 @26688 has 11 MA's), (Start: 26 @26700 has 2 MA's),  
(Start: 28 @26706 has 1 MA's), (29, 26715), (31, 26730), (32, 26751), (33, 26754), (35, 26769), (36,  
26784), (37, 26796), (46, 26874), (51, 26934),

Gene: Plmatters\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Plmatters\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Podrick\_16 Start: 13641, Stop: 13991, Start Num: 17

Candidate Starts for Podrick\_16:

(Start: 17 @13641 has 223 MA's), (Start: 20 @13692 has 8 MA's), (Start: 23 @13707 has 11 MA's),  
(25, 13716), (30, 13737), (49, 13932),

Gene: Poster\_15 Start: 14361, Stop: 14681, Start Num: 20

Candidate Starts for Poster\_15:

(1, 13947), (Start: 17 @14310 has 223 MA's), (Start: 20 @14361 has 8 MA's), (Start: 22 @14373 has 1  
MA's), (25, 14385), (29, 14403), (34, 14448), (41, 14559),

Gene: Prince\_16 Start: 15534, Stop: 15905, Start Num: 17

Candidate Starts for Prince\_16:

(Start: 17 @15534 has 223 MA's), (Start: 20 @15585 has 8 MA's), (Start: 22 @15597 has 1 MA's),  
(Start: 23 @15600 has 11 MA's), (25, 15609), (29, 15627), (41, 15783),

Gene: ProfessorX\_16 Start: 13642, Stop: 13992, Start Num: 17

Candidate Starts for ProfessorX\_16:

(Start: 17 @13642 has 223 MA's), (Start: 20 @13693 has 8 MA's), (Start: 22 @13705 has 1 MA's),  
(Start: 23 @13708 has 11 MA's), (25, 13717), (30, 13738), (49, 13933),

Gene: QueenBeane\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for QueenBeane\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: QueenPie\_16 Start: 15959, Stop: 16279, Start Num: 20

Candidate Starts for QueenPie\_16:

(1, 15545), (Start: 17 @15908 has 223 MA's), (Start: 20 @15959 has 8 MA's), (Start: 22 @15971 has 1  
MA's), (25, 15983), (29, 16001), (41, 16157), (47, 16190),

Gene: Quisquilliae\_16 Start: 13665, Stop: 14015, Start Num: 17

Candidate Starts for Quisquilliae\_16:

(Start: 17 @13665 has 223 MA's), (Start: 20 @13716 has 8 MA's), (Start: 22 @13728 has 1 MA's),  
(Start: 23 @13731 has 11 MA's), (25, 13740), (30, 13761), (49, 13956),

Gene: Rabbs\_30 Start: 26873, Stop: 27193, Start Num: 18

Candidate Starts for Rabbs\_30:

(Start: 18 @26873 has 49 MA's), (Start: 23 @26936 has 11 MA's), (Start: 26 @26948 has 2 MA's),  
(Start: 28 @26954 has 1 MA's), (29, 26963), (31, 26978), (32, 26999), (33, 27002), (35, 27017), (36,  
27032), (37, 27044), (46, 27122), (51, 27182),

Gene: RawrgerThat\_16 Start: 15422, Stop: 15742, Start Num: 20

Candidate Starts for RawrgerThat\_16:

(Start: 17 @15371 has 223 MA's), (Start: 20 @15422 has 8 MA's), (Start: 22 @15434 has 1 MA's),  
(Start: 23 @15437 has 11 MA's), (25, 15446), (29, 15464), (33, 15503), (41, 15620),

Gene: RedMaple\_15 Start: 13662, Stop: 14012, Start Num: 17

Candidate Starts for RedMaple\_15:

(Start: 17 @13662 has 223 MA's), (Start: 20 @13713 has 8 MA's), (Start: 22 @13725 has 1 MA's),  
(Start: 23 @13728 has 11 MA's), (25, 13737), (30, 13758), (49, 13953),

Gene: Remy19\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Remy19\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Renaissance\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Renaissance\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Reprobate\_17 Start: 15501, Stop: 15845, Start Num: 17

Candidate Starts for Reprobate\_17:

(3, 15243), (Start: 17 @15501 has 223 MA's), (Start: 20 @15552 has 8 MA's), (24, 15573), (29, 15594),  
(33, 15633), (38, 15708), (40, 15723),

Gene: Rich\_17 Start: 15400, Stop: 15744, Start Num: 17

Candidate Starts for Rich\_17:

(2, 15055), (3, 15142), (13, 15283), (Start: 17 @15400 has 223 MA's), (Start: 20 @15451 has 8 MA's), (24, 15472), (29, 15493), (40, 15622),

Gene: Ricotta\_15 Start: 13374, Stop: 13724, Start Num: 17

Candidate Starts for Ricotta\_15:

(Start: 17 @13374 has 223 MA's), (Start: 20 @13425 has 8 MA's), (Start: 22 @13437 has 1 MA's), (Start: 23 @13440 has 11 MA's), (25, 13449), (30, 13470), (49, 13665),

Gene: Riggan\_16 Start: 13630, Stop: 13980, Start Num: 17

Candidate Starts for Riggan\_16:

(Start: 17 @13630 has 223 MA's), (Start: 20 @13681 has 8 MA's), (Start: 22 @13693 has 1 MA's), (Start: 23 @13696 has 11 MA's), (25, 13705), (30, 13726), (49, 13921),

Gene: Rinkes\_20 Start: 17321, Stop: 17668, Start Num: 17

Candidate Starts for Rinkes\_20:

(Start: 17 @17321 has 223 MA's), (Start: 20 @17372 has 8 MA's), (21, 17375), (Start: 28 @17405 has 1 MA's), (33, 17453), (38, 17528), (43, 17579), (44, 17585), (45, 17588), (47, 17603),

Gene: Rita130\_17 Start: 15309, Stop: 15602, Start Num: 20

Candidate Starts for Rita130\_17:

(2, 14913), (3, 15000), (13, 15141), (Start: 17 @15258 has 223 MA's), (Start: 20 @15309 has 8 MA's), (24, 15330), (29, 15351), (33, 15390), (38, 15465), (40, 15480),

Gene: Robyn\_15 Start: 13223, Stop: 13573, Start Num: 17

Candidate Starts for Robyn\_15:

(Start: 17 @13223 has 223 MA's), (Start: 20 @13274 has 8 MA's), (Start: 23 @13289 has 11 MA's), (25, 13298), (30, 13319), (49, 13514),

Gene: Roliet\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Roliet\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's), (Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Roscoe\_17 Start: 13891, Stop: 14241, Start Num: 17

Candidate Starts for Roscoe\_17:

(Start: 17 @13891 has 223 MA's), (Start: 20 @13942 has 8 MA's), (Start: 22 @13954 has 1 MA's), (Start: 23 @13957 has 11 MA's), (25, 13966), (30, 13987), (49, 14182),

Gene: Roy17\_16 Start: 13352, Stop: 13702, Start Num: 17

Candidate Starts for Roy17\_16:

(Start: 17 @13352 has 223 MA's), (Start: 20 @13403 has 8 MA's), (Start: 22 @13415 has 1 MA's), (Start: 23 @13418 has 11 MA's), (25, 13427), (30, 13448), (49, 13643),

Gene: SDcharge11\_16 Start: 13631, Stop: 13981, Start Num: 17

Candidate Starts for SDcharge11\_16:

(Start: 17 @13631 has 223 MA's), (Start: 20 @13682 has 8 MA's), (Start: 23 @13697 has 11 MA's), (25, 13706), (30, 13727), (49, 13922),

Gene: Saguaro\_18 Start: 16390, Stop: 16737, Start Num: 17

Candidate Starts for Saguaro\_18:

(Start: 17 @16390 has 223 MA's), (Start: 23 @16456 has 11 MA's), (27, 16471),

Gene: Samaymay\_16 Start: 13650, Stop: 14000, Start Num: 17



Candidate Starts for Samaymay\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: SassyCat97\_15 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for SassyCat97\_15:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Schadenfreude\_15 Start: 13207, Stop: 13557, Start Num: 17

Candidate Starts for Schadenfreude\_15:

(Start: 17 @13207 has 223 MA's), (Start: 20 @13258 has 8 MA's), (Start: 22 @13270 has 1 MA's),  
(Start: 23 @13273 has 11 MA's), (25, 13282), (30, 13303), (49, 13498),

Gene: Schiebel\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Schiebel\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Schueller\_15 Start: 13348, Stop: 13698, Start Num: 17

Candidate Starts for Schueller\_15:

(Start: 17 @13348 has 223 MA's), (Start: 20 @13399 has 8 MA's), (Start: 22 @13411 has 1 MA's),  
(Start: 23 @13414 has 11 MA's), (25, 13423), (30, 13444), (49, 13639),

Gene: Scrick\_15 Start: 13370, Stop: 13720, Start Num: 17

Candidate Starts for Scrick\_15:

(Start: 17 @13370 has 223 MA's), (Start: 20 @13421 has 8 MA's), (Start: 22 @13433 has 1 MA's),  
(Start: 23 @13436 has 11 MA's), (25, 13445), (30, 13466), (49, 13661),

Gene: Selr12\_16 Start: 13375, Stop: 13725, Start Num: 17

Candidate Starts for Selr12\_16:

(Start: 17 @13375 has 223 MA's), (Start: 20 @13426 has 8 MA's), (Start: 22 @13438 has 1 MA's),  
(Start: 23 @13441 has 11 MA's), (25, 13450), (30, 13471), (49, 13666),

Gene: Serendipitous\_17 Start: 15447, Stop: 15791, Start Num: 17

Candidate Starts for Serendipitous\_17:

(2, 15102), (3, 15189), (13, 15330), (Start: 17 @15447 has 223 MA's), (Start: 20 @15498 has 8 MA's),  
(24, 15519), (29, 15540), (38, 15654), (40, 15669),

Gene: Serpentine\_0016 Start: 13653, Stop: 14003, Start Num: 17

Candidate Starts for Serpentine\_0016:

(Start: 17 @13653 has 223 MA's), (Start: 20 @13704 has 8 MA's), (Start: 22 @13716 has 1 MA's),  
(Start: 23 @13719 has 11 MA's), (25, 13728), (30, 13749), (49, 13944),

Gene: ShaboiShabazz\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for ShaboiShabazz\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Sheila\_16 Start: 13642, Stop: 13992, Start Num: 17

Candidate Starts for Sheila\_16:

(Start: 17 @13642 has 223 MA's), (Start: 20 @13693 has 8 MA's), (Start: 22 @13705 has 1 MA's),  
(Start: 23 @13708 has 11 MA's), (25, 13717), (30, 13738), (49, 13933),

Gene: Shenyu\_17 Start: 15284, Stop: 15568, Start Num: 20

Candidate Starts for Shenyu\_17:

(2, 14888), (3, 14975), (13, 15116), (Start: 17 @15233 has 223 MA's), (Start: 20 @15284 has 8 MA's),  
(24, 15305), (29, 15326), (33, 15365), (38, 15440), (40, 15455),

Gene: ShiVal\_16 Start: 13644, Stop: 13994, Start Num: 17

Candidate Starts for ShiVal\_16:

(Start: 17 @13644 has 223 MA's), (Start: 20 @13695 has 8 MA's), (Start: 22 @13707 has 1 MA's),  
(Start: 23 @13710 has 11 MA's), (25, 13719), (30, 13740), (49, 13935),

Gene: Simielle\_15 Start: 13342, Stop: 13692, Start Num: 17

Candidate Starts for Simielle\_15:

(Start: 17 @13342 has 223 MA's), (Start: 20 @13393 has 8 MA's), (Start: 22 @13405 has 1 MA's),  
(Start: 23 @13408 has 11 MA's), (25, 13417), (30, 13438), (49, 13633),

Gene: SirJeffery\_17 Start: 15310, Stop: 15603, Start Num: 20

Candidate Starts for SirJeffery\_17:

(2, 14914), (3, 15001), (13, 15142), (Start: 17 @15259 has 223 MA's), (Start: 20 @15310 has 8 MA's),  
(24, 15331), (29, 15352), (33, 15391), (38, 15466), (40, 15481), (50, 15565),

Gene: Sizemore\_30 Start: 26791, Stop: 27111, Start Num: 18

Candidate Starts for Sizemore\_30:

(Start: 18 @26791 has 49 MA's), (Start: 23 @26854 has 11 MA's), (Start: 26 @26866 has 2 MA's),  
(Start: 28 @26872 has 1 MA's), (29, 26881), (31, 26896), (32, 26917), (33, 26920), (35, 26935), (36,  
26950), (37, 26962), (46, 27040), (51, 27100),

Gene: Skippy\_16 Start: 13635, Stop: 13985, Start Num: 17

Candidate Starts for Skippy\_16:

(Start: 17 @13635 has 223 MA's), (Start: 20 @13686 has 8 MA's), (Start: 22 @13698 has 1 MA's),  
(Start: 23 @13701 has 11 MA's), (25, 13710), (30, 13731), (49, 13926),

Gene: Slatt\_16 Start: 13667, Stop: 14017, Start Num: 17

Candidate Starts for Slatt\_16:

(Start: 17 @13667 has 223 MA's), (Start: 20 @13718 has 8 MA's), (Start: 22 @13730 has 1 MA's),  
(Start: 23 @13733 has 11 MA's), (25, 13742), (30, 13763), (49, 13958),

Gene: Sneeze\_30 Start: 26872, Stop: 27192, Start Num: 18

Candidate Starts for Sneeze\_30:

(Start: 18 @26872 has 49 MA's), (Start: 23 @26935 has 11 MA's), (Start: 26 @26947 has 2 MA's),  
(Start: 28 @26953 has 1 MA's), (29, 26962), (31, 26977), (32, 26998), (33, 27001), (35, 27016), (36,  
27031), (37, 27043), (46, 27121), (51, 27181),

Gene: Soile\_16 Start: 13362, Stop: 13712, Start Num: 17

Candidate Starts for Soile\_16:

(Start: 17 @13362 has 223 MA's), (Start: 20 @13413 has 8 MA's), (Start: 22 @13425 has 1 MA's),  
(Start: 23 @13428 has 11 MA's), (25, 13437), (30, 13458), (49, 13653),

Gene: Solosis\_15 Start: 13369, Stop: 13719, Start Num: 17

Candidate Starts for Solosis\_15:

(Start: 17 @13369 has 223 MA's), (Start: 20 @13420 has 8 MA's), (Start: 22 @13432 has 1 MA's),  
(Start: 23 @13435 has 11 MA's), (25, 13444), (30, 13465), (49, 13660),

Gene: Sophia\_15 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for Sophia\_15:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Soto\_16 Start: 13647, Stop: 13997, Start Num: 17

Candidate Starts for Soto\_16:

(Start: 17 @13647 has 223 MA's), (Start: 20 @13698 has 8 MA's), (Start: 22 @13710 has 1 MA's),  
(Start: 23 @13713 has 11 MA's), (25, 13722), (30, 13743), (49, 13938),

Gene: Spartan300\_16 Start: 13647, Stop: 13997, Start Num: 17

Candidate Starts for Spartan300\_16:

(Start: 17 @13647 has 223 MA's), (Start: 20 @13698 has 8 MA's), (Start: 22 @13710 has 1 MA's),  
(Start: 23 @13713 has 11 MA's), (25, 13722), (30, 13743), (49, 13938),

Gene: Squid\_16 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for Squid\_16:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Squiggle\_16 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for Squiggle\_16:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's),  
(Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Stargaze\_30 Start: 28544, Stop: 28897, Start Num: 18

Candidate Starts for Stargaze\_30:

(Start: 18 @28544 has 49 MA's), (21, 28595), (27, 28622), (29, 28634), (32, 28670), (33, 28673), (39,  
28760), (43, 28796), (52, 28877),

Gene: Stinger\_14 Start: 13873, Stop: 14244, Start Num: 17

Candidate Starts for Stinger\_14:

(Start: 17 @13873 has 223 MA's), (Start: 20 @13924 has 8 MA's), (Start: 22 @13936 has 1 MA's), (25,  
13948), (33, 14005), (34, 14011), (41, 14122), (42, 14131), (47, 14155),

Gene: StinkyVeggy\_19 Start: 15482, Stop: 15724, Start Num: 29

Candidate Starts for StinkyVeggy\_19:

(3, 15131), (13, 15272), (Start: 17 @15389 has 223 MA's), (Start: 20 @15440 has 8 MA's), (24, 15461),  
(29, 15482), (33, 15521), (38, 15596), (40, 15611),

Gene: Struggle\_15 Start: 13203, Stop: 13553, Start Num: 17

Candidate Starts for Struggle\_15:

(Start: 17 @13203 has 223 MA's), (Start: 20 @13254 has 8 MA's), (Start: 22 @13266 has 1 MA's),  
(Start: 23 @13269 has 11 MA's), (25, 13278), (30, 13299), (49, 13494),

Gene: Suigeneris\_17 Start: 15259, Stop: 15603, Start Num: 17

Candidate Starts for Suigeneris\_17:

(2, 14914), (3, 15001), (13, 15142), (Start: 17 @15259 has 223 MA's), (Start: 20 @15310 has 8 MA's),  
(24, 15331), (29, 15352), (33, 15391), (38, 15466), (40, 15481), (50, 15565),

Gene: Surely\_16 Start: 13659, Stop: 14009, Start Num: 17

Candidate Starts for Surely\_16:

(Start: 17 @13659 has 223 MA's), (Start: 20 @13710 has 8 MA's), (Start: 22 @13722 has 1 MA's), (Start: 23 @13725 has 11 MA's), (25, 13734), (30, 13755), (49, 13950),

Gene: Sweets\_30 Start: 26848, Stop: 27105, Start Num: 23

Candidate Starts for Sweets\_30:

(Start: 18 @26785 has 49 MA's), (Start: 23 @26848 has 11 MA's), (Start: 26 @26860 has 2 MA's), (Start: 28 @26866 has 1 MA's), (29, 26875), (31, 26890), (32, 26911), (33, 26914), (35, 26929), (36, 26944), (37, 26956), (46, 27034), (51, 27094),

Gene: Taheera\_30 Start: 26974, Stop: 27234, Start Num: 23

Candidate Starts for Taheera\_30:

(6, 26707), (10, 26764), (12, 26788), (Start: 18 @26911 has 49 MA's), (Start: 23 @26974 has 11 MA's), (Start: 26 @26986 has 2 MA's), (Start: 28 @26992 has 1 MA's), (29, 27001), (31, 27016), (32, 27037), (33, 27040), (35, 27055), (36, 27070), (37, 27082),

Gene: Telesworld\_15 Start: 13357, Stop: 13707, Start Num: 17

Candidate Starts for Telesworld\_15:

(Start: 17 @13357 has 223 MA's), (Start: 20 @13408 has 8 MA's), (Start: 22 @13420 has 1 MA's), (Start: 23 @13423 has 11 MA's), (25, 13432), (30, 13453), (49, 13648),

Gene: Terror\_30 Start: 26974, Stop: 27234, Start Num: 23

Candidate Starts for Terror\_30:

(6, 26707), (10, 26764), (12, 26788), (Start: 18 @26911 has 49 MA's), (Start: 23 @26974 has 11 MA's), (Start: 26 @26986 has 2 MA's), (Start: 28 @26992 has 1 MA's), (29, 27001), (31, 27016), (32, 27037), (33, 27040), (35, 27055), (36, 27070), (37, 27082),

Gene: Thonko\_17 Start: 13214, Stop: 13540, Start Num: 17

Candidate Starts for Thonko\_17:

(9, 13052), (Start: 17 @13214 has 223 MA's), (Start: 20 @13265 has 8 MA's), (25, 13289), (29, 13307),

Gene: Timmi\_15 Start: 13369, Stop: 13719, Start Num: 17

Candidate Starts for Timmi\_15:

(Start: 17 @13369 has 223 MA's), (Start: 20 @13420 has 8 MA's), (Start: 22 @13432 has 1 MA's), (Start: 23 @13435 has 11 MA's), (25, 13444), (30, 13465), (49, 13660),

Gene: TinaBug\_30 Start: 26866, Stop: 27105, Start Num: 28

Candidate Starts for TinaBug\_30:

(Start: 18 @26785 has 49 MA's), (Start: 23 @26848 has 11 MA's), (Start: 26 @26860 has 2 MA's), (Start: 28 @26866 has 1 MA's), (29, 26875), (31, 26890), (32, 26911), (33, 26914), (35, 26929), (36, 26944), (37, 26956), (46, 27034), (51, 27094),

Gene: TomBombadil\_16 Start: 13653, Stop: 14003, Start Num: 17

Candidate Starts for TomBombadil\_16:

(Start: 17 @13653 has 223 MA's), (Start: 20 @13704 has 8 MA's), (Start: 22 @13716 has 1 MA's), (Start: 23 @13719 has 11 MA's), (25, 13728), (30, 13749), (49, 13944),

Gene: TomBrady\_30 Start: 26791, Stop: 27111, Start Num: 18

Candidate Starts for TomBrady\_30:

(Start: 18 @26791 has 49 MA's), (Start: 23 @26854 has 11 MA's), (Start: 26 @26866 has 2 MA's), (Start: 28 @26872 has 1 MA's), (29, 26881), (31, 26896), (32, 26917), (33, 26920), (35, 26935), (36, 26950), (37, 26962), (46, 27040), (51, 27100),

Gene: Tomlarah\_16 Start: 13644, Stop: 13994, Start Num: 17

Candidate Starts for Tomlarah\_16:

(Start: 17 @13644 has 223 MA's), (Start: 20 @13695 has 8 MA's), (Start: 22 @13707 has 1 MA's),  
(Start: 23 @13710 has 11 MA's), (25, 13719), (30, 13740), (49, 13935),

Gene: Toni\_15 Start: 13355, Stop: 13705, Start Num: 17

Candidate Starts for Toni\_15:

(Start: 17 @13355 has 223 MA's), (Start: 20 @13406 has 8 MA's), (Start: 22 @13418 has 1 MA's),  
(Start: 23 @13421 has 11 MA's), (25, 13430), (30, 13451), (49, 13646),

Gene: Tooj\_16 Start: 13657, Stop: 14007, Start Num: 17

Candidate Starts for Tooj\_16:

(Start: 17 @13657 has 223 MA's), (Start: 20 @13708 has 8 MA's), (Start: 22 @13720 has 1 MA's),  
(Start: 23 @13723 has 11 MA's), (25, 13732), (30, 13753), (49, 13948),

Gene: True\_15 Start: 13358, Stop: 13708, Start Num: 17

Candidate Starts for True\_15:

(Start: 17 @13358 has 223 MA's), (Start: 20 @13409 has 8 MA's), (Start: 22 @13421 has 1 MA's),  
(Start: 23 @13424 has 11 MA's), (25, 13433), (30, 13454), (49, 13649),

Gene: Trypo\_16 Start: 13647, Stop: 13997, Start Num: 17

Candidate Starts for Trypo\_16:

(Start: 17 @13647 has 223 MA's), (Start: 20 @13698 has 8 MA's), (Start: 22 @13710 has 1 MA's),  
(Start: 23 @13713 has 11 MA's), (25, 13722), (30, 13743), (49, 13938),

Gene: TyrionL\_15 Start: 13209, Stop: 13559, Start Num: 17

Candidate Starts for TyrionL\_15:

(Start: 17 @13209 has 223 MA's), (Start: 20 @13260 has 8 MA's), (Start: 22 @13272 has 1 MA's),  
(Start: 23 @13275 has 11 MA's), (25, 13284), (30, 13305), (49, 13500),

Gene: UAch1\_16 Start: 13668, Stop: 14018, Start Num: 17

Candidate Starts for UAch1\_16:

(Start: 17 @13668 has 223 MA's), (Start: 20 @13719 has 8 MA's), (Start: 22 @13731 has 1 MA's),  
(Start: 23 @13734 has 11 MA's), (25, 13743), (30, 13764), (49, 13959),

Gene: Usavi\_16 Start: 13659, Stop: 14009, Start Num: 17

Candidate Starts for Usavi\_16:

(Start: 17 @13659 has 223 MA's), (Start: 20 @13710 has 8 MA's), (Start: 23 @13725 has 11 MA's),  
(25, 13734), (30, 13755), (49, 13950),

Gene: Valjean\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Valjean\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Vaticameos\_16 Start: 13348, Stop: 13698, Start Num: 17

Candidate Starts for Vaticameos\_16:

(Start: 17 @13348 has 223 MA's), (Start: 20 @13399 has 8 MA's), (Start: 22 @13411 has 1 MA's),  
(Start: 23 @13414 has 11 MA's), (25, 13423), (30, 13444), (49, 13639),

Gene: Veritas\_15 Start: 13197, Stop: 13547, Start Num: 17

Candidate Starts for Veritas\_15:

(Start: 17 @13197 has 223 MA's), (Start: 20 @13248 has 8 MA's), (Start: 22 @13260 has 1 MA's), (Start: 23 @13263 has 11 MA's), (25, 13272), (30, 13293), (49, 13488),

Gene: Vincenzo\_17 Start: 16153, Stop: 16518, Start Num: 17

Candidate Starts for Vincenzo\_17:

(Start: 17 @16153 has 223 MA's), (Start: 20 @16207 has 8 MA's), (Start: 22 @16219 has 1 MA's), (25, 16231), (29, 16249),

Gene: VioletZ\_16 Start: 15407, Stop: 15778, Start Num: 17

Candidate Starts for VioletZ\_16:

(Start: 17 @15407 has 223 MA's), (Start: 20 @15458 has 8 MA's), (Start: 22 @15470 has 1 MA's), (Start: 23 @15473 has 11 MA's), (25, 15482), (29, 15500), (33, 15539), (41, 15656),

Gene: Virapocalypse\_16 Start: 13642, Stop: 13992, Start Num: 17

Candidate Starts for Virapocalypse\_16:

(Start: 17 @13642 has 223 MA's), (Start: 20 @13693 has 8 MA's), (Start: 22 @13705 has 1 MA's), (Start: 23 @13708 has 11 MA's), (25, 13717), (30, 13738), (49, 13933),

Gene: Vista\_16 Start: 13653, Stop: 14003, Start Num: 17

Candidate Starts for Vista\_16:

(Start: 17 @13653 has 223 MA's), (Start: 20 @13704 has 8 MA's), (Start: 22 @13716 has 1 MA's), (Start: 23 @13719 has 11 MA's), (25, 13728), (30, 13749), (49, 13944),

Gene: Vivaldi\_16 Start: 13684, Stop: 14034, Start Num: 17

Candidate Starts for Vivaldi\_16:

(Start: 17 @13684 has 223 MA's), (Start: 20 @13735 has 8 MA's), (Start: 22 @13747 has 1 MA's), (Start: 23 @13750 has 11 MA's), (25, 13759), (30, 13780), (49, 13975),

Gene: Waleliano\_16 Start: 15377, Stop: 15748, Start Num: 17

Candidate Starts for Waleliano\_16:

(Start: 17 @15377 has 223 MA's), (Start: 20 @15428 has 8 MA's), (Start: 22 @15440 has 1 MA's), (Start: 23 @15443 has 11 MA's), (25, 15452), (29, 15470), (33, 15509), (41, 15626),

Gene: Wallhey\_15 Start: 13215, Stop: 13565, Start Num: 17

Candidate Starts for Wallhey\_15:

(Start: 17 @13215 has 223 MA's), (Start: 20 @13266 has 8 MA's), (Start: 22 @13278 has 1 MA's), (Start: 23 @13281 has 11 MA's), (25, 13290), (30, 13311), (49, 13506),

Gene: Waterdiva\_16 Start: 13651, Stop: 14001, Start Num: 17

Candidate Starts for Waterdiva\_16:

(Start: 17 @13651 has 223 MA's), (Start: 20 @13702 has 8 MA's), (Start: 22 @13714 has 1 MA's), (Start: 23 @13717 has 11 MA's), (25, 13726), (30, 13747), (49, 13942),

Gene: Weher20\_16 Start: 13641, Stop: 13991, Start Num: 17

Candidate Starts for Weher20\_16:

(Start: 17 @13641 has 223 MA's), (Start: 20 @13692 has 8 MA's), (Start: 22 @13704 has 1 MA's), (Start: 23 @13707 has 11 MA's), (25, 13716), (30, 13737), (49, 13932),

Gene: Wendigo\_30 Start: 26871, Stop: 27110, Start Num: 28

Candidate Starts for Wendigo\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's), (Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36, 26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Windsor\_15 Start: 13317, Stop: 13667, Start Num: 17

Candidate Starts for Windsor\_15:

(Start: 17 @13317 has 223 MA's), (Start: 20 @13368 has 8 MA's), (Start: 22 @13380 has 1 MA's),  
(Start: 23 @13383 has 11 MA's), (25, 13392), (30, 13413), (49, 13608),

Gene: Xavier\_15 Start: 13369, Stop: 13719, Start Num: 17

Candidate Starts for Xavier\_15:

(Start: 17 @13369 has 223 MA's), (Start: 20 @13420 has 8 MA's), (Start: 22 @13432 has 1 MA's),  
(Start: 23 @13435 has 11 MA's), (25, 13444), (30, 13465), (49, 13660),

Gene: Xincheng\_16 Start: 15249, Stop: 15569, Start Num: 20

Candidate Starts for Xincheng\_16:

(Start: 17 @15198 has 223 MA's), (Start: 20 @15249 has 8 MA's), (Start: 22 @15261 has 1 MA's),  
(Start: 23 @15264 has 11 MA's), (25, 15273), (29, 15291), (32, 15327), (33, 15330), (34, 15336), (41,  
15447),

Gene: YouGoGlencoco\_16 Start: 13647, Stop: 13997, Start Num: 17

Candidate Starts for YouGoGlencoco\_16:

(Start: 17 @13647 has 223 MA's), (Start: 20 @13698 has 8 MA's), (Start: 22 @13710 has 1 MA's),  
(Start: 23 @13713 has 11 MA's), (25, 13722), (30, 13743), (49, 13938),

Gene: Zaider\_17 Start: 13880, Stop: 14230, Start Num: 17

Candidate Starts for Zaider\_17:

(Start: 17 @13880 has 223 MA's), (Start: 20 @13931 has 8 MA's), (Start: 22 @13943 has 1 MA's),  
(Start: 23 @13946 has 11 MA's), (25, 13955), (30, 13976), (49, 14171),

Gene: Zelda\_16 Start: 13650, Stop: 14000, Start Num: 17

Candidate Starts for Zelda\_16:

(Start: 17 @13650 has 223 MA's), (Start: 20 @13701 has 8 MA's), (Start: 22 @13713 has 1 MA's),  
(Start: 23 @13716 has 11 MA's), (25, 13725), (30, 13746), (49, 13941),

Gene: Zemanar\_17 Start: 15428, Stop: 15748, Start Num: 20

Candidate Starts for Zemanar\_17:

(Start: 17 @15377 has 223 MA's), (Start: 20 @15428 has 8 MA's), (Start: 22 @15440 has 1 MA's),  
(Start: 23 @15443 has 11 MA's), (25, 15452), (29, 15470), (33, 15509), (41, 15626),

Gene: ZoMa\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for ZoMa\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Zombie\_30 Start: 26790, Stop: 27110, Start Num: 18

Candidate Starts for Zombie\_30:

(Start: 18 @26790 has 49 MA's), (Start: 23 @26853 has 11 MA's), (Start: 26 @26865 has 2 MA's),  
(Start: 28 @26871 has 1 MA's), (29, 26880), (31, 26895), (32, 26916), (33, 26919), (35, 26934), (36,  
26949), (37, 26961), (46, 27039), (51, 27099),

Gene: Zonia\_16 Start: 13664, Stop: 14014, Start Num: 17

Candidate Starts for Zonia\_16:

(Start: 17 @13664 has 223 MA's), (Start: 20 @13715 has 8 MA's), (Start: 22 @13727 has 1 MA's),  
(Start: 23 @13730 has 11 MA's), (25, 13739), (30, 13760), (49, 13955),

