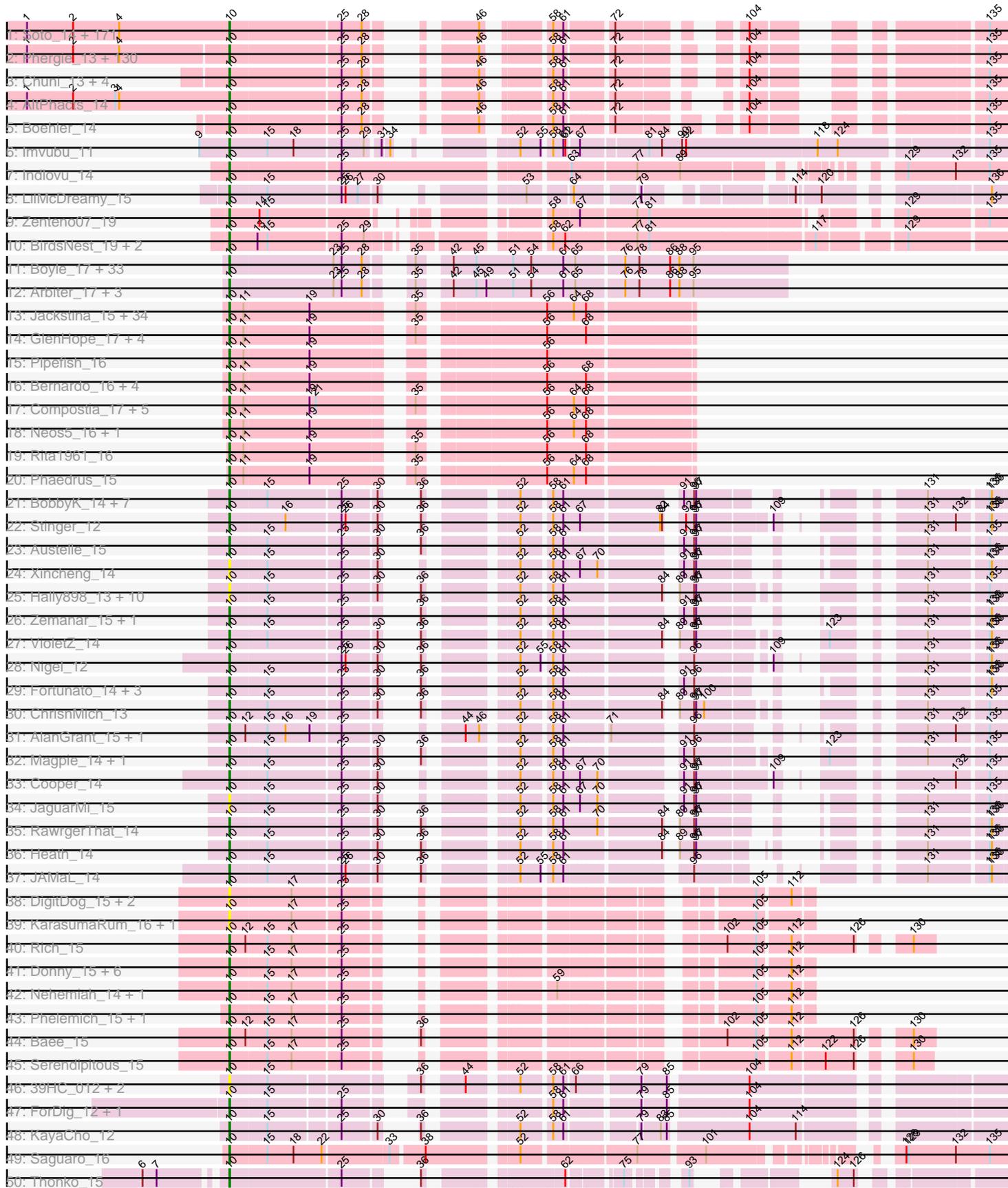


Pham 283368





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 283368 Report

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

Pham number 283368 has 488 members, 69 are drafts.

Phages represented in each track:

- Track 1 : Soto\_14, TallGrassMM\_14, HSavage\_14, Puhltonio\_14, HenryJackson\_13, Gyarad\_0014, Cornobble\_13, FugateOSU\_13, Numberten\_14, Vaishali24\_13, Carthage\_13, Phamished\_14, OliverWalter\_14, Doddsville\_14, OSmaximus\_14, Gwilliam\_14, Yoshand\_14, Virgeve\_13, Vivaldi\_14, Plmatters\_14, Newman\_14, UAch1\_14, Khan1\_14, Nacho\_0014, Karn\_13, JakeO\_13, Piglet\_0013, Daffy\_14, Morty\_14, Windsor\_13, Antonia\_13, TooFast2Furius\_15, DelRivs\_13, Serpentine\_0014, BlueHusk\_14, SallyH\_14, KlimbOn\_14, ShadowBud\_14, Suffolk\_14, Mikota\_14, Rimu\_14, ThreeOh3D2\_14, Grand2040\_13, DonSanchon\_13, Kikipoo\_14, Jesabah\_14, Solosis\_13, Mutante\_13, Aonishiki\_14, Crownjwl\_14, Maru\_13, Aelin\_13, Serendipity\_14, Dati\_14, DirtJuice\_14, Pherdinand\_14, Jiraiya\_13, Riverton\_13, Altwerkus\_13, Jillium\_13, Surely\_14, Hetaeria\_14, Chorkpop\_14, Slatt\_14, KLucky39\_14, Selr12\_14, Chipette\_15, DaddyDaniels\_14, MrPhizzler\_14, Frankicide\_14, Pipsqueak\_14, UncleHowie\_14, Childish\_13, MiniBoss\_14, Ricotta\_13, Soile\_14, Prickles\_14, Duggie\_13, IsaacEli\_14, Iridessa\_14, Horchata\_14, RedRaider89\_14, Mana\_13, Morgushi\_14, Timmi\_13, MitKao\_14, FleetyMac\_13, Thunderbird\_13, BlackStallion\_14, SDcharge11\_14, Mesh1\_14, AbsoluteMadLad\_13, Quisquillae\_14, Craff\_14, Phipps\_14, Manad\_13, Kwksand96\_13, JDog\_13, GreenChile\_14, Beaglebox\_13, Robyn\_13, FriarPreacher\_14, Scoot17C\_14, Lasso\_14, Sheila\_14, LostAndPhound\_13, Lopsy\_13, Tooj\_14, Schadenfreude\_13, Scrick\_13, Haleema\_13, Olive\_14, Chaelin\_13, Xavier\_13, Lulwa\_14, Vortex\_14, PG1\_14, Podrick\_14, Megatron\_14, Cobra\_14, Telesworld\_13, Omniscient\_14, Kahve\_13, DolOn\_15, KingTut\_13, HogWash\_13, ElvisPhasley\_14, Potter\_13, PinheadLarry\_14, Chunky\_14, Pops\_14, Held\_14, Lego3393\_14, Kimbrough\_14, Dingo\_14, CheetO\_14, Roliet\_14, Harvey\_14, Legolas\_13, LemonSlice\_14, Phareon\_14, Triad\_14, Inverness\_14, Fozzie\_13, Badfish\_14, SirBeauregard\_13, MRabcd\_13, Thora\_14, Eremos\_14, Basato\_15, Cornbread\_13, Apizium\_13, LuckyMarjie\_13, Katniss\_14, Cher\_13, Buckeye\_14, Colbert\_14, Aleia\_14, Mosaic\_13, FluffyNinja\_14, Plata\_14, Usavi\_14, LeiMonet\_14, RedMaple\_13, Cosmolli16\_13, KingVeVeVe\_14, Megamind20\_14, Chah\_14, Lehmann\_14, Kloppinator\_14, PhatCats2014\_14, Nathan\_14
- Track 2 : Phergie\_13, Zaider\_15, Simielle\_13, Struggle\_13, Fringe\_14, JacAttac\_14, Andre\_14, Mesmerelda\_13, Etaye\_14, Toni\_13, Hocus\_13, Hartsy\_14, Spartan300\_14, Squid\_14, CamL\_14, Roscoe\_15, ABU\_14, Hamish\_14, PhenghisKhan\_13, Vista\_14, Sophia\_13, ImtiyazSitla\_13, PhatLouie\_14, PhrankReynolds\_13, Roy17\_14, TomBombadil\_14, Maskar\_13, Inchworm\_14, CharlieGBrown\_13, Placalicious\_13, BatteryCK\_13, Swish\_14, Gwennie1\_14, Haimas\_14, Oline\_13, DuchessDung\_13, Orwigg\_13, LeeLot\_14, Nicole21\_14,

Pinkman\_13, Orfeu\_13, Phleuron\_13, Derpp\_13, Burr\_13, Valjean\_14, Virapocalypse\_14, Mulan\_13, Dione\_13, MichaelPhcott\_13, Gophee\_14, Schueller\_13, AngelCake\_14, PallasAthena\_14, Magic8\_14, Zonia\_14, TyrionL\_13, True\_13, Olak\_13, JangoPhett\_14, DoesntMatter\_14, Durga\_14, Sigman\_14, MelsMeow\_13, Riggan\_14, Bishoperium\_13, Mcshane\_13, Mecca\_13, Fang\_14, Labeouficaum\_13, Happabalu\_14, Wallhey\_13, Kwadwo\_13, Waterdiva\_14, PhrodoBaggins\_13, Gareth\_13, FremontTroll\_14, Chute\_13, Mag7\_13, Cannibal\_14, Bluephacebaby\_13, Ashraf\_13, Freya\_13, Melc17\_14, Pacifista\_13, Lulumae\_13, Kailash\_14, BoogieWoogie\_13, Orion\_14, SassyCat97\_13, Charles1\_14, Emiris\_14, QueenBeane\_14, Giraffe\_14, Murdoc\_14, Vaticameos\_14, Iridoclysis\_14, ProfessorX\_14, Longacauda\_13, CampRoach\_14, Lumine\_13, Oosterbaan\_14, Anderson\_14, Tomlarah\_14, Matalotodo\_14, Nyala\_13, GeneCoco\_14, SilverBell\_14, Caspiboi\_13, Hertubise\_14, Jiminy\_13, Samaymay\_14, Banjo\_13, Zelda\_14, EmpTee\_14, Adriana\_14, HighStump\_13, LasagnaCat\_14, Daka\_14, Dice\_13, Trypo\_14, Brilliant\_14, Veritas\_13, Skippy\_14, Coletti\_14, Swiphy\_14, Phunky\_14, Weher20\_14, YouGoGlencoco\_14, Squiggle\_14, Eugenia\_14, ShiVal\_14

- Track 3 : Chuni\_13, Keitherie\_14, BlacksBerry\_13, Flake\_15, Larson\_15
- Track 4 : AltPhacts\_14
- Track 5 : Boehler\_14
- Track 6 : Imvubu\_11
- Track 7 : Indlovu\_14
- Track 8 : LilMcDreamy\_15
- Track 9 : Zenteno07\_19
- Track 10 : BirdsNest\_19, LittleMinkey\_20, Hashim76\_19
- Track 11 : Boyle\_17, LizLemon\_17, Kheth\_17, Ares\_17, Eaglehorse\_17, ItsyBitsy1\_17, Godines\_17, FrenchFry\_17, Calamitous\_17, Blocker23\_17, Phantasmagoria\_17, TA17A\_17, Laurie\_17, Faze9\_17, Vic9\_00017, Tinciduntolum\_18, Lars\_17, Kaleb\_17, Tres\_17, Brownie5\_17, Holeinone\_17, Rosebush\_17, PrinceCharming\_17, Glass\_17, West99\_17, LilSmirk\_17, Kolhan\_17, Opia\_17, Allegro\_17, Sabella\_17, Rhinoforte\_17, Bananafish\_17, Hedgerow\_17, Coffee\_17
- Track 12 : Arbiter\_17, Lephleur\_17, Qyrzula\_16, MasterPo\_17
- Track 13 : Jackstina\_15, Yinz\_16, SynergyX\_16, RagingRooster\_16, Chentzyk\_15, Audrey\_16, Ben11\_15, Mulaychimus\_16, Corofin\_16, Briakila\_16, Heathcliff\_16, Baloo\_16, Kronus\_15, Halfpint\_15, Athena\_17, Daisy\_16, RomaT\_16, Nozo\_16, Glubnar\_16, Kamiyu\_16, OrangeOswald\_16, Phlyer\_16, Tydolla\_16, LestyG\_16, TinyTerror\_16, Olivio\_15, Abinghost\_16, Gadget\_17, Deenasa\_16, Devonte\_16, Obutu\_16, MmasiCarm\_16, SlippinJimmy\_16, Phayeta\_16, Shenandoah\_16
- Track 14 : GlenHope\_17, Marlia\_16, ChaChing\_16, Gervas\_16, Mortcellus\_15
- Track 15 : Pipefish\_16
- Track 16 : Bernardo\_16, Yahalom\_16, Morty007\_16, Marley1013\_16, Akoma\_16
- Track 17 : Compostia\_17, HarveySr\_16, SwainyDoc\_16, Philly\_15, Casbah\_15, Chandler\_16
- Track 18 : Neos5\_16, Chalmers\_16
- Track 19 : Rita1961\_16
- Track 20 : Phaedruss\_15
- Track 21 : BobbyK\_14, Hangman\_14, Frederick\_14, Hydro\_14, JoyceMaria\_14, Mithril\_14, Lolalove\_14, BrownCNA\_15
- Track 22 : Stinger\_12
- Track 23 : Austelle\_15
- Track 24 : Xincheng\_14
- Track 25 : Hally898\_13, Lambano\_13, Nanao\_13, Epah\_13, Poster\_13, GinPorsche\_13, LittleDigger\_13, Antihero\_13, QueenPie\_14, Renkei\_13, Ahwei\_13

- Track 26 : Zemanar\_15, Waleliano\_14
- Track 27 : VioletZ\_14
- Track 28 : Nigel\_12
- Track 29 : Fortunato\_14, Apex\_14, Mudslide\_14, Prince\_14
- Track 30 : ChrisnMich\_13
- Track 31 : AlanGrant\_15, Vincenzo\_15
- Track 32 : Magpie\_14, Fanaw\_14
- Track 33 : Cooper\_14
- Track 34 : JaguarMi\_15
- Track 35 : RawrgerThat\_14
- Track 36 : Heath\_14
- Track 37 : JAMaL\_14
- Track 38 : DigitDog\_15, Shenyu\_15, Nangang\_15
- Track 39 : KarasumaRum\_16, StinkyVeggy\_16
- Track 40 : Rich\_15
- Track 41 : Donny\_15, SirJeffery\_15, Reccee\_16, Acadian\_15, Suigeneris\_15, Rita130\_15, EastView9101\_15
- Track 42 : Nehemiah\_14, Mysterious\_15
- Track 43 : Phelemich\_15, Reprobate\_15
- Track 44 : Bae\_15
- Track 45 : Serendipitous\_15
- Track 46 : 39HC\_012, Hosp\_010, 40BC\_012
- Track 47 : ForDig\_12, Jolie1\_012
- Track 48 : KayaCho\_12
- Track 49 : Saguaro\_16
- Track 50 : Thonko\_15
- Track 51 : PenguinLover67\_17
- Track 52 : Knocker\_19
- Track 53 : Quesadilla\_16
- Track 54 : Funsized\_19
- Track 55 : CRB2\_17
- Track 56 : Rinkes\_19
- Track 57 : BobRoss2024\_12
- Track 58 : LittleMunchkin\_14
- Track 59 : Sour\_16
- Track 60 : TPA2\_23

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

The start number called the most often in the published annotations is 10, it was called in 419 of the 419 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• 39HC\_012, 40BC\_012, ABU\_14, Abinghost\_16, AbsoluteMadLad\_13, Acadian\_15, Adriana\_14, Aelin\_13, Ahwei\_13, Akoma\_16, AlanGrant\_15, Aleia\_14, Allegro\_17, AltPhacts\_14, Altwerkus\_13, Anderson\_14, Andre\_14, AngelCake\_14, Antihero\_13, Antonia\_13, Aonishiki\_14, Apex\_14, Apizium\_13, Arbiter\_17, Ares\_17, Ashraf\_13, Athena\_17, Audrey\_16, Austelle\_15, Badfish\_14, Bae\_15, Baloo\_16, Bananafish\_17, Banjo\_13, Basato\_15, BatteryCK\_13, Beaglebox\_13, Ben11\_15, Bernardo\_16, BirdsNest\_19, Bishoperium\_13, BlackStallion\_14, BlackBerry\_13,

Blocker23\_17, BlueHusk\_14, Bluephacebaby\_13, BobRoss2024\_12, BobbyK\_14, Boehler\_14, BoogieWoogie\_13, Boyle\_17, Briakila\_16, Brilliant\_14, BrownCNA\_15, Brownie5\_17, Buckeye\_14, Burr\_13, CRB2\_17, Calamitous\_17, CamL\_14, CampRoach\_14, Cannibal\_14, Carthage\_13, Casbah\_15, Caspiboi\_13, ChaChing\_16, Chaelin\_13, Chah\_14, Chalmers\_16, Chandler\_16, Charles1\_14, CharlieGBrown\_13, CheetO\_14, Chentzyk\_15, Cher\_13, Childish\_13, Chipette\_15, Chorkpop\_14, ChrisnMich\_13, Chuni\_13, Chunky\_14, Chute\_13, Cobra\_14, Coffee\_17, Colbert\_14, Coletti\_14, Compostia\_17, Cooper\_14, Cornbread\_13, Cornobble\_13, Corofin\_16, Cosmolli16\_13, Craff\_14, Crownjwl\_14, DaddyDaniels\_14, Daffy\_14, Daisy\_16, Daka\_14, Dati\_14, Deenasa\_16, DelRivs\_13, Derpp\_13, Devonte\_16, Dice\_13, DigitDog\_15, Dingo\_14, Dione\_13, DirtJuice\_14, Doddsville\_14, DoesntMatter\_14, DoIn\_15, DonSancho\_13, Donny\_15, DuchessDung\_13, Duggie\_13, Durga\_14, Eaglehorse\_17, EastView9101\_15, ElvisPhasley\_14, Emiris\_14, EmpTee\_14, Epah\_13, Eremos\_14, Etaye\_14, Eugenia\_14, Fanaw\_14, Fang\_14, Faze9\_17, Flake\_15, FleetyMac\_13, FluffyNinja\_14, ForDig\_12, Fortunato\_14, Fozzie\_13, Frankicide\_14, Frederick\_14, FremontTroll\_14, FrenchFry\_17, Freya\_13, FriarPreacher\_14, Fringe\_14, FugateOSU\_13, Funsized\_19, Gadjet\_17, Gareth\_13, GeneCoco\_14, Gervas\_16, GinPorsche\_13, Giraffe\_14, Glass\_17, GlenHope\_17, Glubnar\_16, Godines\_17, Gophee\_14, Grand2040\_13, GreenChile\_14, Gwennie1\_14, Gwilliam\_14, Gyarad\_0014, HSavage\_14, Haimas\_14, Haleema\_13, Halfpint\_15, Hally898\_13, Hamish\_14, Hangman\_14, Happabalu\_14, Hartsy\_14, HarveySr\_16, Harvey\_14, Hashim76\_19, Heath\_14, Heathcliff\_16, Hedgerow\_17, Held\_14, HenryJackson\_13, Hertubise\_14, Hetaeria\_14, HighStump\_13, Hocus\_13, HogWash\_13, Holeinone\_17, Horchata\_14, Hosp\_010, Hydro\_14, ImtiyazSitla\_13, Invubu\_11, Inchworm\_14, Indlovu\_14, Inverness\_14, Iridessa\_14, Iridoclysis\_14, IsaacEli\_14, ItsyBitsy1\_17, JAMaL\_14, JDog\_13, JacAttac\_14, Jackstina\_15, JaguarMi\_15, JakeO\_13, JangoPhett\_14, Jesabah\_14, Jillium\_13, Jiminy\_13, Jiraiya\_13, Jolie1\_012, JoyceMaria\_14, KLucky39\_14, Kahve\_13, Kailash\_14, Kaleb\_17, Kamiyu\_16, KarasumaRum\_16, Karn\_13, Katniss\_14, KayaCho\_12, Keitherie\_14, Khan1\_14, Kheth\_17, Kikipoo\_14, Kimbrough\_14, KingTut\_13, KingVeVeVe\_14, KlimbOn\_14, Kloppinator\_14, Knocker\_19, Kolhan\_17, Kronus\_15, Kwadwo\_13, Kwksand96\_13, Labeouficaum\_13, Lambano\_13, Lars\_17, Larson\_15, LasagnaCat\_14, Lasso\_14, Laurie\_17, LeeLot\_14, Lego3393\_14, Legolas\_13, Lehmann\_14, LeiMonet\_14, LemonSlice\_14, Lephleur\_17, LestyG\_16, LilMcDreamy\_15, LilSmirk\_17, LittleDigger\_13, LittleMinkey\_20, LittleMunchkin\_14, LizLemon\_17, Lolalove\_14, Longacauda\_13, Lopsy\_13, LostAndPhound\_13, LuckyMarjie\_13, Lulumae\_13, Lulwa\_14, Lumine\_13, MRabcd\_13, Mag7\_13, Magic8\_14, Magpie\_14, Mana\_13, Manad\_13, Marley1013\_16, Marlia\_16, Maru\_13, Maskar\_13, MasterPo\_17, Matalotodo\_14, Mcshane\_13, Mecca\_13, Megamind20\_14, Megatron\_14, Melc17\_14, MelsMeow\_13, Mesh1\_14, Mesmerelda\_13, MichaelPhcott\_13, Mikota\_14, MiniBoss\_14, MitKao\_14, Mithril\_14, MmasiCarm\_16, Morgushi\_14, Mortcellus\_15, Morty007\_16, Morty\_14, Mosaic\_13, MrPhizzler\_14, Mudslide\_14, Mulan\_13, Mulaychimus\_16, Murdoc\_14, Mutante\_13, Mysterious\_15, Nacho\_0014, Nanao\_13, Nangang\_15, Nathan\_14, Nehemiah\_14, Neos5\_16, Newman\_14, Nicole21\_14, Nigel\_12, Nozo\_16, Numberten\_14, Nyala\_13, OSmaximus\_14, Obutu\_16, Olak\_13, Oline\_13, Olive\_14, OliverWalter\_14, Olivio\_15, Omniscient\_14, Oosterbaan\_14, Opia\_17, OrangeOswald\_16, Orfeu\_13, Orion\_14, Orwigg\_13, PG1\_14, Pacifista\_13, PallasAthena\_14, PenguinLover67\_17, Phaedrus\_15, Phamished\_14, Phantasmagoria\_17, Phareon\_14, PhatCats2014\_14, PhatLouie\_14, Phayeta\_16, Phelemich\_15, PhenghisKhan\_13, Pherdinand\_14, Phergie\_13, Philly\_15, Phipps\_14, Phleuron\_13, Phlyer\_16, PhrankReynolds\_13, PhrodoBaggins\_13, Phunky\_14, Piglet\_0013, PinheadLarry\_14, Pinkman\_13,

Pipefish\_16, Pipsqueak\_14, Placalicious\_13, Plata\_14, Plmatters\_14, Podrick\_14, Pops\_14, Poster\_13, Potter\_13, Prickles\_14, PrinceCharming\_17, Prince\_14, ProfessorX\_14, Puhltonio\_14, QueenBeane\_14, QueenPie\_14, Quesadilla\_16, Quisquilliae\_14, Qyrzula\_16, RagingRooster\_16, RawrgerThat\_14, Reccee\_16, RedMaple\_13, RedRaider89\_14, Renkei\_13, Reprobate\_15, Rhinoforte\_17, Rich\_15, Ricotta\_13, Riggan\_14, Rimu\_14, Rinkes\_19, Rita130\_15, Rita1961\_16, Riverton\_13, Robyn\_13, Roliet\_14, RomaT\_16, Roscoe\_15, Rosebush\_17, Roy17\_14, SDcharge11\_14, Sabella\_17, Saguario\_16, SallyH\_14, Samaymay\_14, SassyCat97\_13, Schadenfreude\_13, Schueller\_13, Scoot17C\_14, Scrick\_13, Selr12\_14, Serendipitous\_15, Serendipity\_14, Serpentine\_0014, ShadowBud\_14, Sheila\_14, Shenandoah\_16, Shenyu\_15, ShiVal\_14, Sigman\_14, SilverBell\_14, Simielle\_13, SirBeauregard\_13, SirJeffery\_15, Skippy\_14, Slatt\_14, SlippinJimmy\_16, Soile\_14, Solosis\_13, Sophia\_13, Soto\_14, Sour\_16, Spartan300\_14, Squid\_14, Squiggle\_14, Stinger\_12, StinkyVeggy\_16, Struggle\_13, Suffolk\_14, Suigeneris\_15, Surely\_14, SwainyDoc\_16, Swiphy\_14, Swish\_14, SynergyX\_16, TA17A\_17, TPA2\_23, TallGrassMM\_14, Telesworld\_13, Thonko\_15, Thora\_14, ThreeOh3D2\_14, Thunderbird\_13, Timmi\_13, Tinciduntolum\_18, TinyTerror\_16, TomBombadil\_14, Tomlarah\_14, Toni\_13, TooFast2Furius\_15, Tooj\_14, Tres\_17, Triad\_14, True\_13, Trypo\_14, Tydolla\_16, TyrionL\_13, UAch1\_14, UncleHowie\_14, Usavi\_14, Vaishali24\_13, Valjean\_14, Vaticameos\_14, Veritas\_13, Vic9\_00017, Vincenzo\_15, VioletZ\_14, Virapocalypse\_14, Virgeve\_13, Vista\_14, Vivaldi\_14, Vortex\_14, Waleliano\_14, Wallhey\_13, Waterdiva\_14, Weher20\_14, West99\_17, Windsor\_13, Xavier\_13, Xincheng\_14, Yahalom\_16, Yinz\_16, Yoshand\_14, YouGoGlencoco\_14, Zaider\_15, Zelda\_14, Zemanar\_15, Zenteno07\_19, Zonia\_14,

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

- 

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

- 

### Summary by start number:

Start 10:

- Found in 488 of 488 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 419 of 419
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_012 (B6), 40BC\_012 (B6), ABU\_14 (B1), Abinghost\_16 (B3), AbsoluteMadLad\_13 (B1), Acadian\_15 (B5), Adriana\_14 (B1), Aelin\_13 (B1), Ahwei\_13 (B4), Akoma\_16 (B3), AlanGrant\_15 (B4), Aleia\_14 (B1), Allegro\_17 (B2), AltPhacts\_14 (B1), Altwerkus\_13 (B1), Anderson\_14 (B1), Andre\_14 (B1), AngelCake\_14 (B1), Antihero\_13 (B4), Antonia\_13 (B1), Aonishiki\_14 (B1), Apex\_14 (B4), Apizium\_13 (B1), Arbiter\_17 (B2), Ares\_17 (B2), Ashraf\_13 (B1), Athena\_17 (B3), Audrey\_16 (B3), Austelle\_15 (B4), Badfish\_14 (B1), Bae\_15 (B5), Baloo\_16 (B3), Bananafish\_17 (B2), Banjo\_13 (B1), Basato\_15 (B1), BatteryCK\_13 (B1), Beaglebox\_13 (B1), Ben11\_15 (B3), Bernardo\_16 (B3), BirdsNest\_19 (B13), Bishoperium\_13 (B1), BlackStallion\_14 (B1), BlackBerry\_13 (B1), Blocker23\_17 (B2), BlueHusk\_14 (B1), Bluephacebaby\_13 (B1), BobRoss2024\_12 (DR), BobbyK\_14 (B4), Boehler\_14 (B1), BoogieWoogie\_13 (B1), Boyle\_17 (B2), Briakila\_16 (B3), Brilliant\_14 (B1), BrownCNA\_15 (B4), Brownie5\_17 (B2), Buckeye\_14 (B1), Burr\_13 (B1), CRB2\_17 (B9), Calamitous\_17 (B2), CamL\_14 (B1), CampRoach\_14 (B1), Cannibal\_14 (B1), Carthage\_13 (B1), Casbah\_15 (B3),

Caspiboi\_13 (B1), ChaChing\_16 (B3), Chaelin\_13 (B1), Chah\_14 (B1), Chalmers\_16 (B3), Chandler\_16 (B3), Charles1\_14 (B1), CharlieGBrown\_13 (B1), CheetO\_14 (B1), Chentzyk\_15 (B3), Cher\_13 (B1), Childish\_13 (B1), Chipette\_15 (B1), Chorkpop\_14 (B1), ChrisnMich\_13 (B4), Chuni\_13 (B1), Chunky\_14 (B1), Chute\_13 (B1), Cobra\_14 (B1), Coffee\_17 (B2), Colbert\_14 (B1), Coletti\_14 (B1), Compostia\_17 (B3), Cooper\_14 (B4), Cornbread\_13 (B1), Cornobble\_13 (B1), Corofin\_16 (B3), Cosmolli16\_13 (B1), Craff\_14 (B1), Crownjwl\_14 (B1), DaddyDaniels\_14 (B1), Daffy\_14 (B1), Daisy\_16 (B3), Daka\_14 (B1), Dati\_14 (B1), Deenasa\_16 (B3), DelRivs\_13 (B1), Derpp\_13 (B1), Devonte\_16 (B3), Dice\_13 (B1), DigitDog\_15 (B5), Dingo\_14 (B1), Dione\_13 (B1), DirtJuice\_14 (B1), Doddsville\_14 (B1), DoesntMatter\_14 (B1), DoOn\_15 (B1), DonSancho\_13 (B1), Donny\_15 (B5), DuchessDung\_13 (B1), Duggie\_13 (B1), Durga\_14 (B1), Eaglehorse\_17 (B2), EastView9101\_15 (B5), ElvisPhasley\_14 (B1), Emiris\_14 (B1), EmpTee\_14 (B1), Epah\_13 (B4), Eremos\_14 (B1), Etaye\_14 (B1), Eugenia\_14 (B1), Fanaw\_14 (B4), Fang\_14 (B1), Faze9\_17 (B2), Flake\_15 (B1), FleetyMac\_13 (B1), FluffyNinja\_14 (B1), ForDig\_12 (B6), Fortunato\_14 (B4), Fozzie\_13 (B1), Frankicide\_14 (B1), Frederick\_14 (B4), FremontTroll\_14 (B1), FrenchFry\_17 (B2), Freya\_13 (B1), FriarPreacher\_14 (B1), Fringe\_14 (B1), FugateOSU\_13 (B1), Funsized\_19 (B9), Gadget\_17 (B3), Gareth\_13 (B1), GeneCoco\_14 (B1), Gervas\_16 (B3), GinPorsche\_13 (B4), Giraffe\_14 (B1), Glass\_17 (B2), GlenHope\_17 (B3), Glubnar\_16 (B3), Godines\_17 (B2), Gophee\_14 (B1), Grand2040\_13 (B1), GreenChile\_14 (B1), Gwennie1\_14 (B1), Gwilliam\_14 (B1), Gyrad\_0014 (B1), HSavage\_14 (B1), Haimas\_14 (B1), Haleema\_13 (B1), Halfpint\_15 (B3), Hally898\_13 (B4), Hamish\_14 (B1), Hangman\_14 (B4), Happabalu\_14 (B1), Hartsy\_14 (B1), HarveySr\_16 (B3), Harvey\_14 (B1), Hashim76\_19 (B13), Heath\_14 (B4), Heathcliff\_16 (B3), Hedgerow\_17 (B2), Held\_14 (B1), HenryJackson\_13 (B1), Hertubise\_14 (B1), Hetaeria\_14 (B1), HighStump\_13 (B1), Hocus\_13 (B1), HogWash\_13 (B1), Holeinone\_17 (B2), Horchata\_14 (B1), Hosp\_010 (B6), Hydro\_14 (B4), ImtiyazSitla\_13 (B1), Imvubu\_11 (B10), Inchworm\_14 (B1), Indlovu\_14 (B11), Inverness\_14 (B1), Iridessa\_14 (B1), Iridoclysis\_14 (B1), IsaacEli\_14 (B1), ItsyBitsy1\_17 (B2), JAMaL\_14 (B4), JDog\_13 (B1), JacAttac\_14 (B1), Jackstina\_15 (B3), JaguarMi\_15 (B4), JakeO\_13 (B1), JangoPhett\_14 (B1), Jesabah\_14 (B1), Jillium\_13 (B1), Jiminy\_13 (B1), Jiraiya\_13 (B1), Jolie1\_012 (B6), JoyceMaria\_14 (B4), KLucky39\_14 (B1), Kahve\_13 (B1), Kailash\_14 (B1), Kaleb\_17 (B2), Kamiyu\_16 (B3), KarasumaRum\_16 (B5), Karn\_13 (B1), Katniss\_14 (B1), KayaCho\_12 (B6), Keitherie\_14 (B1), Khan1\_14 (B1), Kheth\_17 (B2), Kikipoo\_14 (B1), Kimbrough\_14 (B1), KingTut\_13 (B1), KingVeVeVe\_14 (B1), KlimbOn\_14 (B1), Kloppinator\_14 (B1), Knocker\_19 (B9), Kolhan\_17 (B2), Kronus\_15 (B3), Kwadwo\_13 (B1), Kwksand96\_13 (B1), Labeouficaum\_13 (B1), Lambano\_13 (B4), Lars\_17 (B2), Larson\_15 (B1), LasagnaCat\_14 (B1), Lasso\_14 (B1), Laurie\_17 (B2), LeeLot\_14 (B1), Lego3393\_14 (B1), Legolas\_13 (B1), Lehmann\_14 (B1), LeiMonet\_14 (B1), LemonSlice\_14 (B1), Lephleur\_17 (B2), LestyG\_16 (B3), LilMcDreamy\_15 (B12), LilSmirk\_17 (B2), LittleDigger\_13 (B4), LittleMinkey\_20 (B13), LittleMunchkin\_14 (DR), LizLemon\_17 (B2), Lolalove\_14 (B4), Longacauda\_13 (B1), Lopsy\_13 (B1), LostAndPhound\_13 (B1), LuckyMarjie\_13 (B1), Lulumae\_13 (B1), Lulwa\_14 (B1), Lumine\_13 (B1), MRabcd\_13 (B1), Mag7\_13 (B1), Magic8\_14 (B1), Magpie\_14 (B4), Mana\_13 (B1), Manad\_13 (B1), Marley1013\_16 (B3), Marlia\_16 (B3), Maru\_13 (B1), Maskar\_13 (B1), MasterPo\_17 (B2), Matalotodo\_14 (B1), Mcshane\_13 (B1), Mecca\_13 (B1), Megamind20\_14 (B1), Megatron\_14 (B1), Melc17\_14 (B1), MelsMeow\_13 (B1), Mesh1\_14 (B1), Mesmerelda\_13 (B1), MichaelPhcott\_13 (B1), Mikota\_14 (B1), MiniBoss\_14 (B1), MitKao\_14 (B1), Mithril\_14 (B4), MmasiCarm\_16 (B3), Morgushi\_14 (B1), Mortcellus\_15 (B3), Morty007\_16 (B3), Morty\_14 (B1), Mosaic\_13 (B1), MrPhizzler\_14 (B1), Mudslide\_14 (B4), Mulan\_13 (B1),

Mulaychimus\_16 (B3), Murdoc\_14 (B1), Mutante\_13 (B1), Mysterious\_15 (B5), Nacho\_0014 (B1), Nanao\_13 (B4), Nangang\_15 (B5), Nathan\_14 (B1), Nehemiah\_14 (B5), Neos5\_16 (B3), Newman\_14 (B1), Nicole21\_14 (B1), Nigel\_12 (B4), Nozo\_16 (B3), Numberten\_14 (B1), Nyala\_13 (B1), OSmaximus\_14 (B1), Obutu\_16 (B3), Olak\_13 (B1), Oline\_13 (B1), Olive\_14 (B1), OliverWalter\_14 (B1), Olivio\_15 (B3), Omniscient\_14 (B1), Oosterbaan\_14 (B1), Opia\_17 (B2), OrangeOswald\_16 (B3), Orfeu\_13 (B1), Orion\_14 (B1), Orwigg\_13 (B1), PG1\_14 (B1), Pacifista\_13 (B1), PallasAthena\_14 (B1), PenguinLover67\_17 (B9), Phaedrus\_15 (B3), Phamished\_14 (B1), Phantasmagoria\_17 (B2), Phareon\_14 (B1), PhatCats2014\_14 (B1), PhatLouie\_14 (B1), Phayeta\_16 (B3), Phelemich\_15 (B5), PhenghisKhan\_13 (B1), Pherdinand\_14 (B1), Phergie\_13 (B1), Philly\_15 (B3), Phipps\_14 (B1), Phleuron\_13 (B1), Phlyer\_16 (B3), PhrankReynolds\_13 (B1), PhrodoBaggins\_13 (B1), Phunky\_14 (B1), Piglet\_0013 (B1), PinheadLarry\_14 (B1), Pinkman\_13 (B1), Pipefish\_16 (B3), Pipsqueak\_14 (B1), Placalicious\_13 (B1), Plata\_14 (B1), Plmatters\_14 (B1), Podrick\_14 (B1), Pops\_14 (B1), Poster\_13 (B4), Potter\_13 (B1), Prickles\_14 (B1), PrinceCharming\_17 (B2), Prince\_14 (B4), ProfessorX\_14 (B1), Puhltonio\_14 (B1), QueenBeane\_14 (B1), QueenPie\_14 (B4), Quesadilla\_16 (B9), Quisquiliae\_14 (B1), Qyrzula\_16 (B2), RagingRooster\_16 (B3), RawrgerThat\_14 (B4), Reccee\_16 (B5), RedMaple\_13 (B1), RedRaider89\_14 (B1), Renkei\_13 (B4), Reprobate\_15 (B5), Rhinoforte\_17 (B2), Rich\_15 (B5), Ricotta\_13 (B1), Riggan\_14 (B1), Rimu\_14 (B1), Rinkes\_19 (B9), Rita130\_15 (B5), Rita1961\_16 (B3), Riverton\_13 (B1), Robyn\_13 (B1), Roliet\_14 (B1), RomaT\_16 (B3), Roscoe\_15 (B1), Rosebush\_17 (B2), Roy17\_14 (B1), SDcharge11\_14 (B1), Sabella\_17 (B2), Saguario\_16 (B7), SallyH\_14 (B1), Samaymay\_14 (B1), SassyCat97\_13 (B1), Schadenfreude\_13 (B1), Schueller\_13 (B1), Scoot17C\_14 (B1), Scrick\_13 (B1), Selr12\_14 (B1), Serendipitous\_15 (B5), Serendipity\_14 (B1), Serpentine\_0014 (B1), ShadowBud\_14 (B1), Sheila\_14 (B1), Shenandoah\_16 (B3), Shenyu\_15 (B5), ShiVal\_14 (B1), Sigman\_14 (B1), SilverBell\_14 (B1), Simielle\_13 (B1), SirBeauregard\_13 (B1), SirJeffery\_15 (B5), Skippy\_14 (B1), Slatt\_14 (B1), SlippinJimmy\_16 (B3), Soile\_14 (B1), Solosis\_13 (B1), Sophia\_13 (B1), Soto\_14 (B1), Sour\_16 (DR), Spartan300\_14 (B1), Squid\_14 (B1), Squiggle\_14 (B1), Stinger\_12 (B4), StinkyVeggy\_16 (B5), Struggle\_13 (B1), Suffolk\_14 (B1), Suigeneris\_15 (B5), Surely\_14 (B1), SwainyDoc\_16 (B3), Swiphy\_14 (B1), Swish\_14 (B1), SynergyX\_16 (B3), TA17A\_17 (B2), TPA2\_23 (singleton), TallGrassMM\_14 (B1), Telesworld\_13 (B1), Thonko\_15 (B8), Thora\_14 (B1), ThreeOh3D2\_14 (B1), Thunderbird\_13 (B1), Timmi\_13 (B1), Tinciduntolum\_18 (B2), TinyTerror\_16 (B3), TomBombadil\_14 (B1), Tomlarah\_14 (B1), Toni\_13 (B1), TooFast2Furius\_15 (B1), Tooj\_14 (B1), Tres\_17 (B2), Triad\_14 (B1), True\_13 (B1), Trypo\_14 (B1), Tydolla\_16 (B3), TyrionL\_13 (B1), UAch1\_14 (B1), UncleHowie\_14 (B1), Usavi\_14 (B1), Vaishali24\_13 (B1), Valjean\_14 (B1), Vaticameos\_14 (B1), Veritas\_13 (B1), Vic9\_00017 (B2), Vincenzo\_15 (B4), VioletZ\_14 (B4), Virapocalypse\_14 (B1), Virgeve\_13 (B1), Vista\_14 (B1), Vivaldi\_14 (B1), Vortex\_14 (B1), Waleliano\_14 (B4), Wallhey\_13 (B1), Waterdiva\_14 (B1), Weher20\_14 (B1), West99\_17 (B2), Windsor\_13 (B1), Xavier\_13 (B1), Xincheng\_14 (B4), Yahalom\_16 (B3), Yinz\_16 (B3), Yoshand\_14 (B1), YouGoGlencoco\_14 (B1), Zaider\_15 (B1), Zelda\_14 (B1), Zemanar\_15 (B4), Zenteno07\_19 (B13), Zonia\_14 (B1),

### Summary by clusters:

There are 15 clusters represented in this pham: singleton, B10, B8, B11, B4, B5, B6, B7, B12, B13, B2, B3, DR, B9, B1,

Info for manual annotations of cluster B1:

- Start number 10 was manually annotated 280 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 10 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 10 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 10 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 10 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 10 was manually annotated 36 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 10 was manually annotated 50 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 10 was manually annotated 25 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 10 was manually annotated 10 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 10 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B7:

- Start number 10 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 10 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 10 was manually annotated 6 times for cluster B9.

Info for manual annotations of cluster DR:

- Start number 10 was manually annotated 2 times for cluster DR.

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

Gene: 39HC\_012 Start: 12612, Stop: 13553, Start Num: 10

Candidate Starts for 39HC\_012:

(Start: 10 @12612 has 419 MA's), (15, 12666), (36, 12840), (44, 12882), (52, 12939), (58, 12978), (61, 12993), (66, 13005), (79, 13089), (85, 13122), (104, 13227),

Gene: 40BC\_012 Start: 12612, Stop: 13553, Start Num: 10

Candidate Starts for 40BC\_012:

(Start: 10 @12612 has 419 MA's), (15, 12666), (36, 12840), (44, 12882), (52, 12939), (58, 12978), (61, 12993), (66, 13005), (79, 13089), (85, 13122), (104, 13227),

Gene: ABU\_14 Start: 12409, Stop: 13245, Start Num: 10

Candidate Starts for ABU\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12409 has 419 MA's), (25, 12568), (28, 12598), (46, 12685), (58, 12754), (61, 12769), (72, 12826), (104, 12952), (135, 13198),

Gene: Abinghost\_16 Start: 13964, Stop: 14569, Start Num: 10

Candidate Starts for Abinghost\_16:

(Start: 10 @13964 has 419 MA's), (11, 13985), (19, 14081), (35, 14201), (56, 14363), (64, 14402), (68, 14420),

Gene: AbsoluteMadLad\_13 Start: 12413, Stop: 13249, Start Num: 10

Candidate Starts for AbsoluteMadLad\_13:

(1, 12110), (2, 12179), (4, 12248), (Start: 10 @12413 has 419 MA's), (25, 12572), (28, 12602), (46, 12689), (58, 12758), (61, 12773), (72, 12830), (104, 12956), (135, 13202),

Gene: Acadian\_15 Start: 14167, Stop: 14832, Start Num: 10

Candidate Starts for Acadian\_15:

(Start: 10 @14167 has 419 MA's), (15, 14221), (17, 14257), (25, 14326), (105, 14758), (112, 14803),

Gene: Adriana\_14 Start: 12411, Stop: 13247, Start Num: 10

Candidate Starts for Adriana\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12954), (135, 13200),

Gene: Aelin\_13 Start: 11964, Stop: 12812, Start Num: 10

Candidate Starts for Aelin\_13:

(1, 11661), (2, 11730), (4, 11799), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12519), (135, 12765),

Gene: Ahwei\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for Ahwei\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Akoma\_16 Start: 13964, Stop: 14569, Start Num: 10

Candidate Starts for Akoma\_16:

(Start: 10 @13964 has 419 MA's), (11, 13985), (19, 14081), (56, 14363), (68, 14420),

Gene: AlanGrant\_15 Start: 14918, Stop: 15751, Start Num: 10

Candidate Starts for AlanGrant\_15:

(Start: 10 @14918 has 419 MA's), (12, 14942), (15, 14972), (16, 14999), (19, 15035), (25, 15077), (44, 15176), (46, 15194), (52, 15233), (58, 15272), (61, 15287), (71, 15344), (96, 15443), (131, 15632), (132, 15674), (135, 15716),

Gene: Aleia\_14 Start: 11984, Stop: 12826, Start Num: 10

Candidate Starts for Aleia\_14:

(1, 11681), (2, 11750), (4, 11819), (Start: 10 @11984 has 419 MA's), (25, 12143), (28, 12173), (46, 12260), (58, 12329), (61, 12344), (72, 12401), (104, 12533), (135, 12779),

Gene: Allegro\_17 Start: 15353, Stop: 16102, Start Num: 10

Candidate Starts for Allegro\_17:

(Start: 10 @15353 has 419 MA's), (23, 15506), (25, 15518), (28, 15548), (35, 15584), (42, 15617), (45, 15650), (51, 15704), (54, 15731), (61, 15779), (65, 15797), (76, 15863), (78, 15884), (86, 15929), (88, 15941), (95, 15962),

Gene: AltPhacts\_14 Start: 12418, Stop: 13242, Start Num: 10

Candidate Starts for AltPhacts\_14:

(1, 12115), (2, 12184), (3, 12247), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12949), (135, 13195),

Gene: Altwerkus\_13 Start: 12124, Stop: 12942, Start Num: 10

Candidate Starts for Altwerkus\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12649), (135, 12895),

Gene: Anderson\_14 Start: 12414, Stop: 13238, Start Num: 10

Candidate Starts for Anderson\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12945), (135, 13191),

Gene: Andre\_14 Start: 12412, Stop: 13236, Start Num: 10

Candidate Starts for Andre\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12943), (135, 13189),

Gene: AngelCake\_14 Start: 12408, Stop: 13250, Start Num: 10

Candidate Starts for AngelCake\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12957), (135, 13203),

Gene: Antihero\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for Antihero\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Antonia\_13 Start: 11964, Stop: 12812, Start Num: 10

Candidate Starts for Antonia\_13:

(1, 11661), (2, 11730), (4, 11799), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12519), (135, 12765),

Gene: Aonishiki\_14 Start: 12420, Stop: 13268, Start Num: 10

Candidate Starts for Aonishiki\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12975), (135, 13221),

Gene: Apex\_14 Start: 14332, Stop: 15153, Start Num: 10

Candidate Starts for Apex\_14:

(Start: 10 @14332 has 419 MA's), (15, 14386), (25, 14491), (30, 14539), (36, 14548), (52, 14647), (58, 14686), (61, 14701), (91, 14842), (96, 14857), (131, 15037), (135, 15121), (136, 15124),

Gene: Apizium\_13 Start: 12122, Stop: 12982, Start Num: 10

Candidate Starts for Apizium\_13:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12677), (135, 12923),

Gene: Arbiter\_17 Start: 15440, Stop: 16189, Start Num: 10

Candidate Starts for Arbiter\_17:

(Start: 10 @15440 has 419 MA's), (23, 15593), (25, 15605), (28, 15635), (35, 15671), (42, 15704), (45, 15737), (49, 15752), (51, 15791), (54, 15818), (61, 15866), (65, 15884), (76, 15950), (78, 15971), (86, 16016), (88, 16028), (95, 16049),

Gene: Ares\_17 Start: 15353, Stop: 16102, Start Num: 10

Candidate Starts for Ares\_17:

(Start: 10 @15353 has 419 MA's), (23, 15506), (25, 15518), (28, 15548), (35, 15584), (42, 15617), (45, 15650), (51, 15704), (54, 15731), (61, 15779), (65, 15797), (76, 15863), (78, 15884), (86, 15929), (88, 15941), (95, 15962),

Gene: Ashraf\_13 Start: 11958, Stop: 12800, Start Num: 10

Candidate Starts for Ashraf\_13:

(1, 11661), (2, 11730), (4, 11799), (Start: 10 @11958 has 419 MA's), (25, 12117), (28, 12147), (46, 12234), (58, 12303), (61, 12318), (72, 12375), (104, 12507), (135, 12753),

Gene: Athena\_17 Start: 14727, Stop: 15332, Start Num: 10

Candidate Starts for Athena\_17:

(Start: 10 @14727 has 419 MA's), (11, 14748), (19, 14844), (35, 14964), (56, 15126), (64, 15165), (68, 15183),

Gene: Audrey\_16 Start: 13964, Stop: 14569, Start Num: 10

Candidate Starts for Audrey\_16:

(Start: 10 @13964 has 419 MA's), (11, 13985), (19, 14081), (35, 14201), (56, 14363), (64, 14402), (68, 14420),

Gene: Austelle\_15 Start: 14785, Stop: 15609, Start Num: 10

Candidate Starts for Austelle\_15:

(Start: 10 @14785 has 419 MA's), (15, 14839), (25, 14944), (30, 14992), (36, 15001), (52, 15100), (58, 15139), (61, 15154), (91, 15295), (96, 15310), (97, 15313), (131, 15493), (135, 15577),

Gene: Badfish\_14 Start: 12417, Stop: 13271, Start Num: 10

Candidate Starts for Badfish\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12978), (135, 13224),

Gene: Bae\_15 Start: 14169, Stop: 14978, Start Num: 10

Candidate Starts for Bae\_15:

(Start: 10 @14169 has 419 MA's), (12, 14193), (15, 14223), (17, 14259), (25, 14328), (36, 14385), (102, 14727), (105, 14769), (112, 14814), (126, 14901), (130, 14946),

Gene: Baloo\_16 Start: 13964, Stop: 14569, Start Num: 10

Candidate Starts for Baloo\_16:

(Start: 10 @13964 has 419 MA's), (11, 13985), (19, 14081), (35, 14201), (56, 14363), (64, 14402), (68, 14420),

Gene: Bananafish\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for Bananafish\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: Banjo\_13 Start: 12119, Stop: 12949, Start Num: 10

Candidate Starts for Banjo\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12656), (135, 12902),

Gene: Basato\_15 Start: 12651, Stop: 13475, Start Num: 10

Candidate Starts for Basato\_15:

(1, 12348), (2, 12417), (4, 12486), (Start: 10 @12651 has 419 MA's), (25, 12810), (28, 12840), (46, 12927), (58, 12996), (61, 13011), (72, 13068), (104, 13182), (135, 13428),

Gene: BatteryCK\_13 Start: 11964, Stop: 12806, Start Num: 10

Candidate Starts for BatteryCK\_13:

(1, 11667), (2, 11736), (4, 11805), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12513), (135, 12759),

Gene: Beaglebox\_13 Start: 12124, Stop: 12966, Start Num: 10

Candidate Starts for Beaglebox\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12673), (135, 12919),

Gene: Ben11\_15 Start: 13788, Stop: 14393, Start Num: 10

Candidate Starts for Ben11\_15:

(Start: 10 @13788 has 419 MA's), (11, 13809), (19, 13905), (35, 14025), (56, 14187), (64, 14226), (68, 14244),

Gene: Bernardo\_16 Start: 13963, Stop: 14568, Start Num: 10

Candidate Starts for Bernardo\_16:

(Start: 10 @13963 has 419 MA's), (11, 13984), (19, 14080), (56, 14362), (68, 14419),

Gene: BirdsNest\_19 Start: 13243, Stop: 14265, Start Num: 10

Candidate Starts for BirdsNest\_19:

(Start: 10 @13243 has 419 MA's), (13, 13285), (15, 13300), (25, 13405), (29, 13438), (58, 13639), (62, 13657), (77, 13753), (81, 13771), (117, 14005), (129, 14119),

Gene: Bishoperium\_13 Start: 12119, Stop: 12955, Start Num: 10

Candidate Starts for Bishoperium\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12662), (135, 12908),

Gene: BlackStallion\_14 Start: 12415, Stop: 13257, Start Num: 10

Candidate Starts for BlackStallion\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12964), (135, 13210),

Gene: BlacksBerry\_13 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for BlacksBerry\_13:

(Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: Blocker23\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for Blocker23\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: BlueHusk\_14 Start: 12414, Stop: 13238, Start Num: 10

Candidate Starts for BlueHusk\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12945), (135, 13191),

Gene: Bluephacebaby\_13 Start: 12119, Stop: 12955, Start Num: 10

Candidate Starts for Bluephacebaby\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12662), (135, 12908),

Gene: BobRoss2024\_12 Start: 12263, Stop: 12784, Start Num: 10

Candidate Starts for BobRoss2024\_12:

(5, 12149), (Start: 10 @12263 has 419 MA's), (21, 12389), (47, 12533), (80, 12656), (106, 12755),

Gene: BobbyK\_14 Start: 14148, Stop: 14972, Start Num: 10

Candidate Starts for BobbyK\_14:

(Start: 10 @14148 has 419 MA's), (15, 14202), (25, 14307), (30, 14355), (36, 14364), (52, 14463), (58, 14502), (61, 14517), (91, 14658), (96, 14673), (97, 14676), (131, 14856), (135, 14940), (136, 14943),

Gene: Boehler\_14 Start: 12417, Stop: 13265, Start Num: 10

Candidate Starts for Boehler\_14:

(Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12972), (135, 13218),

Gene: BoogieWoogie\_13 Start: 12118, Stop: 12942, Start Num: 10

Candidate Starts for BoogieWoogie\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12649), (135, 12895),

Gene: Boyle\_17 Start: 15471, Stop: 16220, Start Num: 10

Candidate Starts for Boyle\_17:

(Start: 10 @15471 has 419 MA's), (23, 15624), (25, 15636), (28, 15666), (35, 15702), (42, 15735), (45, 15768), (51, 15822), (54, 15849), (61, 15897), (65, 15915), (76, 15981), (78, 16002), (86, 16047), (88, 16059), (95, 16080),

Gene: Briakila\_16 Start: 14729, Stop: 15334, Start Num: 10

Candidate Starts for Briakila\_16:

(Start: 10 @14729 has 419 MA's), (11, 14750), (19, 14846), (35, 14966), (56, 15128), (64, 15167), (68, 15185),

Gene: Brilliant\_14 Start: 12117, Stop: 12959, Start Num: 10

Candidate Starts for Brilliant\_14:

(1, 11820), (2, 11889), (4, 11958), (Start: 10 @12117 has 419 MA's), (25, 12276), (28, 12306), (46, 12393), (58, 12462), (61, 12477), (72, 12534), (104, 12666), (135, 12912),

Gene: BrownCNA\_15 Start: 14402, Stop: 15226, Start Num: 10

Candidate Starts for BrownCNA\_15:

(Start: 10 @14402 has 419 MA's), (15, 14456), (25, 14561), (30, 14609), (36, 14618), (52, 14717), (58, 14756), (61, 14771), (91, 14912), (96, 14927), (97, 14930), (131, 15110), (135, 15194), (136, 15197),

Gene: Brownie5\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for Brownie5\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: Buckeye\_14 Start: 12419, Stop: 13273, Start Num: 10

Candidate Starts for Buckeye\_14:

(1, 12116), (2, 12185), (4, 12254), (Start: 10 @12419 has 419 MA's), (25, 12578), (28, 12608), (46, 12695), (58, 12764), (61, 12779), (72, 12836), (104, 12980), (135, 13226),

Gene: Burr\_13 Start: 12119, Stop: 12955, Start Num: 10

Candidate Starts for Burr\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12662), (135, 12908),

Gene: CRB2\_17 Start: 15034, Stop: 16038, Start Num: 10

Candidate Starts for CRB2\_17:

(Start: 10 @15034 has 419 MA's), (15, 15088), (25, 15193), (38, 15304), (41, 15337), (59, 15466), (73, 15544), (108, 15754), (135, 16009),

Gene: Calamitous\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for Calamitous\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: CamL\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for CamL\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: CampRoach\_14 Start: 12408, Stop: 13244, Start Num: 10

Candidate Starts for CampRoach\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12951), (135, 13197),

Gene: Cannibal\_14 Start: 12414, Stop: 13238, Start Num: 10

Candidate Starts for Cannibal\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12945), (135, 13191),

Gene: Carthage\_13 Start: 12092, Stop: 12916, Start Num: 10

Candidate Starts for Carthage\_13:

(1, 11789), (2, 11858), (4, 11927), (Start: 10 @12092 has 419 MA's), (25, 12251), (28, 12281), (46, 12368), (58, 12437), (61, 12452), (72, 12509), (104, 12623), (135, 12869),

Gene: Casbah\_15 Start: 13816, Stop: 14421, Start Num: 10

Candidate Starts for Casbah\_15:

(Start: 10 @13816 has 419 MA's), (11, 13837), (19, 13933), (21, 13942), (35, 14053), (56, 14215), (64, 14254), (68, 14272),

Gene: Caspiboi\_13 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for Caspiboi\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: ChaChing\_16 Start: 13979, Stop: 14584, Start Num: 10

Candidate Starts for ChaChing\_16:

(Start: 10 @13979 has 419 MA's), (11, 14000), (19, 14096), (35, 14216), (56, 14378), (68, 14435),

Gene: Chaelin\_13 Start: 12078, Stop: 12920, Start Num: 10

Candidate Starts for Chaelin\_13:

(1, 11775), (2, 11844), (4, 11913), (Start: 10 @12078 has 419 MA's), (25, 12237), (28, 12267), (46, 12354), (58, 12423), (61, 12438), (72, 12495), (104, 12627), (135, 12873),

Gene: Chah\_14 Start: 12418, Stop: 13272, Start Num: 10

Candidate Starts for Chah\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12979), (135, 13225),

Gene: Chalmers\_16 Start: 14772, Stop: 15377, Start Num: 10

Candidate Starts for Chalmers\_16:

(Start: 10 @14772 has 419 MA's), (11, 14793), (19, 14889), (56, 15171), (64, 15210), (68, 15228),

Gene: Chandler\_16 Start: 14738, Stop: 15343, Start Num: 10

Candidate Starts for Chandler\_16:

(Start: 10 @14738 has 419 MA's), (11, 14759), (19, 14855), (21, 14864), (35, 14975), (56, 15137), (64, 15176), (68, 15194),

Gene: Charles1\_14 Start: 12411, Stop: 13235, Start Num: 10

Candidate Starts for Charles1\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12942), (135, 13188),

Gene: CharlieGBrown\_13 Start: 11982, Stop: 12824, Start Num: 10

Candidate Starts for CharlieGBrown\_13:

(1, 11685), (2, 11754), (4, 11823), (Start: 10 @11982 has 419 MA's), (25, 12141), (28, 12171), (46, 12258), (58, 12327), (61, 12342), (72, 12399), (104, 12531), (135, 12777),

Gene: CheetO\_14 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for CheetO\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: Chentzyk\_15 Start: 13834, Stop: 14439, Start Num: 10

Candidate Starts for Chentzyk\_15:

(Start: 10 @13834 has 419 MA's), (11, 13855), (19, 13951), (35, 14071), (56, 14233), (64, 14272), (68, 14290),

Gene: Cher\_13 Start: 12124, Stop: 12978, Start Num: 10

Candidate Starts for Cher\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12685), (135, 12931),

Gene: Childish\_13 Start: 12124, Stop: 12966, Start Num: 10

Candidate Starts for Childish\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12673), (135, 12919),

Gene: Chipette\_15 Start: 12652, Stop: 13476, Start Num: 10

Candidate Starts for Chipette\_15:

(1, 12349), (2, 12418), (4, 12487), (Start: 10 @12652 has 419 MA's), (25, 12811), (28, 12841), (46, 12928), (58, 12997), (61, 13012), (72, 13069), (104, 13183), (135, 13429),

Gene: Chorkpop\_14 Start: 12124, Stop: 12978, Start Num: 10

Candidate Starts for Chorkpop\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12685), (135, 12931),

Gene: ChrisnMich\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for ChrisnMich\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (100, 13597), (131, 13792), (135, 13876),

Gene: Chuni\_13 Start: 12427, Stop: 13269, Start Num: 10

Candidate Starts for Chuni\_13:

(Start: 10 @12427 has 419 MA's), (25, 12586), (28, 12616), (46, 12703), (58, 12772), (61, 12787), (72, 12844), (104, 12976), (135, 13222),

Gene: Chunky\_14 Start: 12417, Stop: 13265, Start Num: 10

Candidate Starts for Chunky\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12972), (135, 13218),

Gene: Chute\_13 Start: 12426, Stop: 13268, Start Num: 10

Candidate Starts for Chute\_13:

(1, 12129), (2, 12198), (4, 12267), (Start: 10 @12426 has 419 MA's), (25, 12585), (28, 12615), (46, 12702), (58, 12771), (61, 12786), (72, 12843), (104, 12975), (135, 13221),

Gene: Cobra\_14 Start: 12414, Stop: 13256, Start Num: 10

Candidate Starts for Cobra\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12963), (135, 13209),

Gene: Coffee\_17 Start: 15467, Stop: 16216, Start Num: 10

Candidate Starts for Coffee\_17:

(Start: 10 @15467 has 419 MA's), (23, 15620), (25, 15632), (28, 15662), (35, 15698), (42, 15731), (45, 15764), (51, 15818), (54, 15845), (61, 15893), (65, 15911), (76, 15977), (78, 15998), (86, 16043), (88, 16055), (95, 16076),

Gene: Colbert\_14 Start: 12414, Stop: 13256, Start Num: 10

Candidate Starts for Colbert\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12963), (135, 13209),

Gene: Coletti\_14 Start: 12426, Stop: 13268, Start Num: 10

Candidate Starts for Coletti\_14:

(1, 12129), (2, 12198), (4, 12267), (Start: 10 @12426 has 419 MA's), (25, 12585), (28, 12615), (46, 12702), (58, 12771), (61, 12786), (72, 12843), (104, 12975), (135, 13221),

Gene: Compostia\_17 Start: 14397, Stop: 15002, Start Num: 10

Candidate Starts for Compostia\_17:

(Start: 10 @14397 has 419 MA's), (11, 14418), (19, 14514), (21, 14523), (35, 14634), (56, 14796), (64, 14835), (68, 14853),

Gene: Cooper\_14 Start: 13153, Stop: 14016, Start Num: 10

Candidate Starts for Cooper\_14:

(Start: 10 @13153 has 419 MA's), (15, 13207), (25, 13312), (30, 13360), (52, 13468), (58, 13507), (61, 13522), (67, 13543), (70, 13567), (91, 13663), (96, 13678), (97, 13681), (109, 13780), (132, 13942), (135, 13984),

Gene: Cornbread\_13 Start: 12121, Stop: 12969, Start Num: 10

Candidate Starts for Cornbread\_13:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12121 has 419 MA's), (25, 12280), (28, 12310), (46, 12397), (58, 12466), (61, 12481), (72, 12538), (104, 12676), (135, 12922),

Gene: Cornobble\_13 Start: 11965, Stop: 12813, Start Num: 10

Candidate Starts for Cornobble\_13:

(1, 11662), (2, 11731), (4, 11800), (Start: 10 @11965 has 419 MA's), (25, 12124), (28, 12154), (46, 12241), (58, 12310), (61, 12325), (72, 12382), (104, 12520), (135, 12766),

Gene: Corofin\_16 Start: 13989, Stop: 14594, Start Num: 10

Candidate Starts for Corofin\_16:

(Start: 10 @13989 has 419 MA's), (11, 14010), (19, 14106), (35, 14226), (56, 14388), (64, 14427), (68, 14445),

Gene: Cosmolli16\_13 Start: 12122, Stop: 12970, Start Num: 10

Candidate Starts for Cosmolli16\_13:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12677), (135, 12923),

Gene: Craff\_14 Start: 12417, Stop: 13259, Start Num: 10

Candidate Starts for Craff\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12966), (135, 13212),

Gene: Crownjwl\_14 Start: 12202, Stop: 13026, Start Num: 10

Candidate Starts for Crownjwl\_14:

(1, 11899), (2, 11968), (4, 12037), (Start: 10 @12202 has 419 MA's), (25, 12361), (28, 12391), (46, 12478), (58, 12547), (61, 12562), (72, 12619), (104, 12733), (135, 12979),

Gene: DaddyDaniels\_14 Start: 12120, Stop: 12962, Start Num: 10

Candidate Starts for DaddyDaniels\_14:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12669), (135, 12915),

Gene: Daffy\_14 Start: 12124, Stop: 12978, Start Num: 10

Candidate Starts for Daffy\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12685), (135, 12931),

Gene: Daisy\_16 Start: 13985, Stop: 14590, Start Num: 10

Candidate Starts for Daisy\_16:

(Start: 10 @13985 has 419 MA's), (11, 14006), (19, 14102), (35, 14222), (56, 14384), (64, 14423), (68, 14441),

Gene: Daka\_14 Start: 12414, Stop: 13256, Start Num: 10

Candidate Starts for Daka\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12963), (135, 13209),

Gene: Dati\_14 Start: 12118, Stop: 12966, Start Num: 10

Candidate Starts for Dati\_14:

(1, 11815), (2, 11884), (4, 11953), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12673), (135, 12919),

Gene: Deenasa\_16 Start: 14727, Stop: 15332, Start Num: 10

Candidate Starts for Deenasa\_16:

(Start: 10 @14727 has 419 MA's), (11, 14748), (19, 14844), (35, 14964), (56, 15126), (64, 15165), (68, 15183),

Gene: DelRivs\_13 Start: 12123, Stop: 12965, Start Num: 10

Candidate Starts for DelRivs\_13:

(1, 11820), (2, 11889), (4, 11958), (Start: 10 @12123 has 419 MA's), (25, 12282), (28, 12312), (46, 12399), (58, 12468), (61, 12483), (72, 12540), (104, 12672), (135, 12918),

Gene: Derpp\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for Derpp\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Devonte\_16 Start: 13964, Stop: 14569, Start Num: 10

Candidate Starts for Devonte\_16:

(Start: 10 @13964 has 419 MA's), (11, 13985), (19, 14081), (35, 14201), (56, 14363), (64, 14402), (68, 14420),

Gene: Dice\_13 Start: 12117, Stop: 12953, Start Num: 10

Candidate Starts for Dice\_13:

(1, 11820), (2, 11889), (4, 11958), (Start: 10 @12117 has 419 MA's), (25, 12276), (28, 12306), (46, 12393), (58, 12462), (61, 12477), (72, 12534), (104, 12660), (135, 12906),

Gene: DigitDog\_15 Start: 14152, Stop: 14817, Start Num: 10

Candidate Starts for DigitDog\_15:

(Start: 10 @14152 has 419 MA's), (17, 14242), (25, 14311), (105, 14743), (112, 14788),

Gene: Dingo\_14 Start: 12414, Stop: 13238, Start Num: 10

Candidate Starts for Dingo\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12945), (135, 13191),

Gene: Dione\_13 Start: 12118, Stop: 12954, Start Num: 10

Candidate Starts for Dione\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12661), (135, 12907),

Gene: DirtJuice\_14 Start: 12417, Stop: 13241, Start Num: 10

Candidate Starts for DirtJuice\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12948), (135, 13194),

Gene: Doddsville\_14 Start: 12118, Stop: 12966, Start Num: 10

Candidate Starts for Doddsville\_14:

(1, 11815), (2, 11884), (4, 11953), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12673), (135, 12919),

Gene: DoesntMatter\_14 Start: 12411, Stop: 13235, Start Num: 10

Candidate Starts for DoesntMatter\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12942), (135, 13188),

Gene: DolOn\_15 Start: 12652, Stop: 13488, Start Num: 10

Candidate Starts for DolOn\_15:

(1, 12349), (2, 12418), (4, 12487), (Start: 10 @12652 has 419 MA's), (25, 12811), (28, 12841), (46, 12928), (58, 12997), (61, 13012), (72, 13069), (104, 13195), (135, 13441),

Gene: DonSanchon\_13 Start: 12124, Stop: 12954, Start Num: 10

Candidate Starts for DonSanchon\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12661), (135, 12907),

Gene: Donny\_15 Start: 14169, Stop: 14834, Start Num: 10

Candidate Starts for Donny\_15:

(Start: 10 @14169 has 419 MA's), (15, 14223), (17, 14259), (25, 14328), (105, 14760), (112, 14805),

Gene: DuchessDung\_13 Start: 11964, Stop: 12806, Start Num: 10

Candidate Starts for DuchessDung\_13:

(1, 11667), (2, 11736), (4, 11805), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12513), (135, 12759),

Gene: Duggie\_13 Start: 12120, Stop: 12968, Start Num: 10

Candidate Starts for Duggie\_13:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12675), (135, 12921),

Gene: Durga\_14 Start: 12425, Stop: 13267, Start Num: 10

Candidate Starts for Durga\_14:

(1, 12128), (2, 12197), (4, 12266), (Start: 10 @12425 has 419 MA's), (25, 12584), (28, 12614), (46, 12701), (58, 12770), (61, 12785), (72, 12842), (104, 12974), (135, 13220),

Gene: Eaglehorse\_17 Start: 15374, Stop: 16123, Start Num: 10

Candidate Starts for Eaglehorse\_17:

(Start: 10 @15374 has 419 MA's), (23, 15527), (25, 15539), (28, 15569), (35, 15605), (42, 15638), (45, 15671), (51, 15725), (54, 15752), (61, 15800), (65, 15818), (76, 15884), (78, 15905), (86, 15950), (88, 15962), (95, 15983),

Gene: EastView9101\_15 Start: 14176, Stop: 14841, Start Num: 10

Candidate Starts for EastView9101\_15:

(Start: 10 @14176 has 419 MA's), (15, 14230), (17, 14266), (25, 14335), (105, 14767), (112, 14812),

Gene: ElvisPhasley\_14 Start: 12418, Stop: 13266, Start Num: 10

Candidate Starts for ElvisPhasley\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12973), (135, 13219),

Gene: Emiris\_14 Start: 12412, Stop: 13248, Start Num: 10

Candidate Starts for Emiris\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12955), (135, 13201),

Gene: EmpTee\_14 Start: 12412, Stop: 13254, Start Num: 10

Candidate Starts for EmpTee\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12961), (135, 13207),

Gene: Epah\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for Epah\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Eremos\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Eremos\_14:

(1, 12108), (2, 12177), (4, 12246), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Etaye\_14 Start: 12408, Stop: 13238, Start Num: 10

Candidate Starts for Etaye\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12945), (135, 13191),

Gene: Eugenia\_14 Start: 12412, Stop: 13266, Start Num: 10

Candidate Starts for Eugenia\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12973), (135, 13219),

Gene: Fanaw\_14 Start: 14151, Stop: 15002, Start Num: 10

Candidate Starts for Fanaw\_14:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (30, 14358), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (91, 14661), (96, 14676), (123, 14793), (131, 14886), (135, 14970),

Gene: Fang\_14 Start: 12415, Stop: 13269, Start Num: 10

Candidate Starts for Fang\_14:

(1, 12118), (2, 12187), (4, 12256), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12976), (135, 13222),

Gene: Faze9\_17 Start: 15467, Stop: 16216, Start Num: 10

Candidate Starts for Faze9\_17:

(Start: 10 @15467 has 419 MA's), (23, 15620), (25, 15632), (28, 15662), (35, 15698), (42, 15731), (45, 15764), (51, 15818), (54, 15845), (61, 15893), (65, 15911), (76, 15977), (78, 15998), (86, 16043), (88, 16055), (95, 16076),

Gene: Flake\_15 Start: 12428, Stop: 13270, Start Num: 10

Candidate Starts for Flake\_15:

(Start: 10 @12428 has 419 MA's), (25, 12587), (28, 12617), (46, 12704), (58, 12773), (61, 12788), (72, 12845), (104, 12977), (135, 13223),

Gene: FleetyMac\_13 Start: 12415, Stop: 13251, Start Num: 10

Candidate Starts for FleetyMac\_13:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12958), (135, 13204),

Gene: FluffyNinja\_14 Start: 12415, Stop: 13257, Start Num: 10

Candidate Starts for FluffyNinja\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12964), (135, 13210),

Gene: ForDig\_12 Start: 12599, Stop: 13540, Start Num: 10

Candidate Starts for ForDig\_12:

(Start: 10 @12599 has 419 MA's), (15, 12653), (25, 12752), (58, 12965), (61, 12980), (79, 13076), (85, 13109), (104, 13214),

Gene: Fortunato\_14 Start: 14145, Stop: 14966, Start Num: 10

Candidate Starts for Fortunato\_14:

(Start: 10 @14145 has 419 MA's), (15, 14199), (25, 14304), (30, 14352), (36, 14361), (52, 14460), (58, 14499), (61, 14514), (91, 14655), (96, 14670), (131, 14850), (135, 14934), (136, 14937),

Gene: Fozzie\_13 Start: 12415, Stop: 13263, Start Num: 10

Candidate Starts for Fozzie\_13:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12970), (135, 13216),

Gene: Frankicide\_14 Start: 12419, Stop: 13255, Start Num: 10

Candidate Starts for Frankicide\_14:

(1, 12116), (2, 12185), (4, 12254), (Start: 10 @12419 has 419 MA's), (25, 12578), (28, 12608), (46, 12695), (58, 12764), (61, 12779), (72, 12836), (104, 12962), (135, 13208),

Gene: Frederick\_14 Start: 14151, Stop: 14975, Start Num: 10

Candidate Starts for Frederick\_14:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (30, 14358), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (91, 14661), (96, 14676), (97, 14679), (131, 14859), (135, 14943), (136, 14946),

Gene: FremontTroll\_14 Start: 12116, Stop: 12952, Start Num: 10

Candidate Starts for FremontTroll\_14:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12116 has 419 MA's), (25, 12275), (28, 12305), (46, 12392), (58, 12461), (61, 12476), (72, 12533), (104, 12659), (135, 12905),

Gene: FrenchFry\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for FrenchFry\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: Freya\_13 Start: 12119, Stop: 12949, Start Num: 10

Candidate Starts for Freya\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12656), (135, 12902),

Gene: FriarPreacher\_14 Start: 12420, Stop: 13274, Start Num: 10

Candidate Starts for FriarPreacher\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12981), (135, 13227),

Gene: Fringe\_14 Start: 12412, Stop: 13236, Start Num: 10

Candidate Starts for Fringe\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12943), (135, 13189),

Gene: FugateOSU\_13 Start: 12124, Stop: 12960, Start Num: 10

Candidate Starts for FugateOSU\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12667), (135, 12913),

Gene: Funsized\_19 Start: 16242, Stop: 17348, Start Num: 10

Candidate Starts for Funsized\_19:

(Start: 10 @16242 has 419 MA's), (15, 16299), (29, 16437), (39, 16533), (40, 16545), (43, 16584), (48, 16614), (50, 16647), (52, 16665), (55, 16695), (58, 16704), (61, 16719), (81, 16842), (94, 16902), (107, 17010), (113, 17055), (116, 17079), (119, 17091), (125, 17118), (127, 17133), (128, 17208), (129, 17211), (135, 17322),

Gene: Gadget\_17 Start: 13968, Stop: 14573, Start Num: 10

Candidate Starts for Gadget\_17:

(Start: 10 @13968 has 419 MA's), (11, 13989), (19, 14085), (35, 14205), (56, 14367), (64, 14406), (68, 14424),

Gene: Gareth\_13 Start: 12115, Stop: 12957, Start Num: 10

Candidate Starts for Gareth\_13:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12115 has 419 MA's), (25, 12274), (28, 12304), (46, 12391), (58, 12460), (61, 12475), (72, 12532), (104, 12664), (135, 12910),

Gene: GeneCoco\_14 Start: 12417, Stop: 13259, Start Num: 10

Candidate Starts for GeneCoco\_14:

(1, 12120), (2, 12189), (4, 12258), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12966), (135, 13212),

Gene: Gervas\_16 Start: 13947, Stop: 14552, Start Num: 10

Candidate Starts for Gervas\_16:

(Start: 10 @13947 has 419 MA's), (11, 13968), (19, 14064), (35, 14184), (56, 14346), (68, 14403),

Gene: GinPorsche\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for GinPorsche\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Giraffe\_14 Start: 12119, Stop: 12961, Start Num: 10

Candidate Starts for Giraffe\_14:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12668), (135, 12914),

Gene: Glass\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for Glass\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: GlenHope\_17 Start: 13954, Stop: 14559, Start Num: 10

Candidate Starts for GlenHope\_17:

(Start: 10 @13954 has 419 MA's), (11, 13975), (19, 14071), (35, 14191), (56, 14353), (68, 14410),

Gene: Glubnar\_16 Start: 13968, Stop: 14573, Start Num: 10

Candidate Starts for Glubnar\_16:

(Start: 10 @13968 has 419 MA's), (11, 13989), (19, 14085), (35, 14205), (56, 14367), (64, 14406), (68, 14424),

Gene: Godines\_17 Start: 15353, Stop: 16102, Start Num: 10

Candidate Starts for Godines\_17:

(Start: 10 @15353 has 419 MA's), (23, 15506), (25, 15518), (28, 15548), (35, 15584), (42, 15617), (45, 15650), (51, 15704), (54, 15731), (61, 15779), (65, 15797), (76, 15863), (78, 15884), (86, 15929), (88, 15941), (95, 15962),

Gene: Gophee\_14 Start: 12414, Stop: 13238, Start Num: 10

Candidate Starts for Gophee\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12945), (135, 13191),

Gene: Grand2040\_13 Start: 12122, Stop: 12976, Start Num: 10

Candidate Starts for Grand2040\_13:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12683), (135, 12929),

Gene: GreenChile\_14 Start: 12419, Stop: 13255, Start Num: 10

Candidate Starts for GreenChile\_14:

(1, 12116), (2, 12185), (4, 12254), (Start: 10 @12419 has 419 MA's), (25, 12578), (28, 12608), (46, 12695), (58, 12764), (61, 12779), (72, 12836), (104, 12962), (135, 13208),

Gene: Gwennie1\_14 Start: 12429, Stop: 13277, Start Num: 10

Candidate Starts for Gwennie1\_14:

(1, 12132), (2, 12201), (4, 12270), (Start: 10 @12429 has 419 MA's), (25, 12588), (28, 12618), (46, 12705), (58, 12774), (61, 12789), (72, 12846), (104, 12984), (135, 13230),

Gene: Gwilliam\_14 Start: 12414, Stop: 13250, Start Num: 10

Candidate Starts for Gwilliam\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12957), (135, 13203),

Gene: Gyarad\_0014 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for Gyarad\_0014:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: HSavage\_14 Start: 12419, Stop: 13261, Start Num: 10

Candidate Starts for HSavage\_14:

(1, 12116), (2, 12185), (4, 12254), (Start: 10 @12419 has 419 MA's), (25, 12578), (28, 12608), (46, 12695), (58, 12764), (61, 12779), (72, 12836), (104, 12968), (135, 13214),

Gene: Haimas\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Haimas\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Haleema\_13 Start: 12124, Stop: 12978, Start Num: 10

Candidate Starts for Haleema\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12685), (135, 12931),

Gene: Halfpint\_15 Start: 13789, Stop: 14394, Start Num: 10

Candidate Starts for Halfpint\_15:

(Start: 10 @13789 has 419 MA's), (11, 13810), (19, 13906), (35, 14026), (56, 14188), (64, 14227), (68, 14245),

Gene: Hally898\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for Hally898\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Hamish\_14 Start: 12411, Stop: 13247, Start Num: 10

Candidate Starts for Hamish\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12954), (135, 13200),

Gene: Hangman\_14 Start: 14151, Stop: 14975, Start Num: 10

Candidate Starts for Hangman\_14:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (30, 14358), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (91, 14661), (96, 14676), (97, 14679), (131, 14859), (135, 14943), (136, 14946),

Gene: Happabalu\_14 Start: 12111, Stop: 12947, Start Num: 10

Candidate Starts for Happabalu\_14:

(1, 11814), (2, 11883), (4, 11952), (Start: 10 @12111 has 419 MA's), (25, 12270), (28, 12300), (46, 12387), (58, 12456), (61, 12471), (72, 12528), (104, 12654), (135, 12900),

Gene: Hartsy\_14 Start: 12408, Stop: 13250, Start Num: 10

Candidate Starts for Hartsy\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12957), (135, 13203),

Gene: Harvey\_14 Start: 12421, Stop: 13275, Start Num: 10

Candidate Starts for Harvey\_14:

(1, 12118), (2, 12187), (4, 12256), (Start: 10 @12421 has 419 MA's), (25, 12580), (28, 12610), (46, 12697), (58, 12766), (61, 12781), (72, 12838), (104, 12982), (135, 13228),

Gene: HarveySr\_16 Start: 13941, Stop: 14546, Start Num: 10

Candidate Starts for HarveySr\_16:

(Start: 10 @13941 has 419 MA's), (11, 13962), (19, 14058), (21, 14067), (35, 14178), (56, 14340), (64, 14379), (68, 14397),

Gene: Hashim76\_19 Start: 13526, Stop: 14509, Start Num: 10

Candidate Starts for Hashim76\_19:

(Start: 10 @13526 has 419 MA's), (13, 13568), (15, 13583), (25, 13688), (29, 13721), (58, 13922), (62, 13940), (77, 14036), (81, 14054), (117, 14288), (129, 14372),

Gene: Heath\_14 Start: 14151, Stop: 14972, Start Num: 10

Candidate Starts for Heath\_14:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (30, 14358), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (84, 14652), (89, 14655), (96, 14676), (97, 14679), (131, 14856), (135, 14940), (136, 14943),

Gene: Heathcliff\_16 Start: 13926, Stop: 14531, Start Num: 10

Candidate Starts for Heathcliff\_16:

(Start: 10 @13926 has 419 MA's), (11, 13947), (19, 14043), (35, 14163), (56, 14325), (64, 14364), (68, 14382),

Gene: Hedgerow\_17 Start: 15452, Stop: 16201, Start Num: 10

Candidate Starts for Hedgerow\_17:

(Start: 10 @15452 has 419 MA's), (23, 15605), (25, 15617), (28, 15647), (35, 15683), (42, 15716), (45, 15749), (51, 15803), (54, 15830), (61, 15878), (65, 15896), (76, 15962), (78, 15983), (86, 16028), (88, 16040), (95, 16061),

Gene: Held\_14 Start: 12125, Stop: 12961, Start Num: 10

Candidate Starts for Held\_14:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12668), (135, 12914),

Gene: HenryJackson\_13 Start: 12127, Stop: 12975, Start Num: 10

Candidate Starts for HenryJackson\_13:

(1, 11824), (2, 11893), (4, 11962), (Start: 10 @12127 has 419 MA's), (25, 12286), (28, 12316), (46, 12403), (58, 12472), (61, 12487), (72, 12544), (104, 12682), (135, 12928),

Gene: Hertubise\_14 Start: 12414, Stop: 13268, Start Num: 10

Candidate Starts for Hertubise\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12975), (135, 13221),

Gene: Hetaeria\_14 Start: 12417, Stop: 13271, Start Num: 10

Candidate Starts for Hetaeria\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12978), (135, 13224),

Gene: HighStump\_13 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for HighStump\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: Hocus\_13 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for Hocus\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: HogWash\_13 Start: 12414, Stop: 13256, Start Num: 10

Candidate Starts for HogWash\_13:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12963), (135, 13209),

Gene: Holeinone\_17 Start: 15352, Stop: 16101, Start Num: 10

Candidate Starts for Holeinone\_17:

(Start: 10 @15352 has 419 MA's), (23, 15505), (25, 15517), (28, 15547), (35, 15583), (42, 15616), (45, 15649), (51, 15703), (54, 15730), (61, 15778), (65, 15796), (76, 15862), (78, 15883), (86, 15928), (88, 15940), (95, 15961),

Gene: Horchata\_14 Start: 12416, Stop: 13240, Start Num: 10

Candidate Starts for Horchata\_14:

(1, 12113), (2, 12182), (4, 12251), (Start: 10 @12416 has 419 MA's), (25, 12575), (28, 12605), (46, 12692), (58, 12761), (61, 12776), (72, 12833), (104, 12947), (135, 13193),

Gene: Hosp\_010 Start: 10814, Stop: 11755, Start Num: 10

Candidate Starts for Hosp\_010:

(Start: 10 @10814 has 419 MA's), (15, 10868), (36, 11042), (44, 11084), (52, 11141), (58, 11180), (61, 11195), (66, 11207), (79, 11291), (85, 11324), (104, 11429),

Gene: Hydro\_14 Start: 14148, Stop: 14972, Start Num: 10

Candidate Starts for Hydro\_14:

(Start: 10 @14148 has 419 MA's), (15, 14202), (25, 14307), (30, 14355), (36, 14364), (52, 14463), (58, 14502), (61, 14517), (91, 14658), (96, 14673), (97, 14676), (131, 14856), (135, 14940), (136, 14943),

Gene: ImtiyazSitla\_13 Start: 11958, Stop: 12800, Start Num: 10

Candidate Starts for ImtiyazSitla\_13:

(1, 11661), (2, 11730), (4, 11799), (Start: 10 @11958 has 419 MA's), (25, 12117), (28, 12147), (46, 12234), (58, 12303), (61, 12318), (72, 12375), (104, 12507), (135, 12753),

Gene: Imvubu\_11 Start: 11532, Stop: 12530, Start Num: 10

Candidate Starts for Imvubu\_11:

(9, 11487), (Start: 10 @11532 has 419 MA's), (15, 11589), (18, 11628), (25, 11694), (29, 11727), (31, 11745), (34, 11754), (52, 11853), (55, 11883), (58, 11892), (61, 11907), (62, 11910), (67, 11925), (81, 12015), (84, 12033), (90, 12063), (92, 12069), (118, 12261), (124, 12291), (135, 12492),

Gene: Inchworm\_14 Start: 12408, Stop: 13244, Start Num: 10

Candidate Starts for Inchworm\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12951), (135, 13197),

Gene: Indlovu\_14 Start: 13853, Stop: 14830, Start Num: 10

Candidate Starts for Indlovu\_14:

(Start: 10 @13853 has 419 MA's), (25, 14012), (63, 14318), (77, 14408), (89, 14471), (129, 14681), (132, 14750), (135, 14801),

Gene: Inverness\_14 Start: 12419, Stop: 13261, Start Num: 10

Candidate Starts for Inverness\_14:

(1, 12116), (2, 12185), (4, 12254), (Start: 10 @12419 has 419 MA's), (25, 12578), (28, 12608), (46, 12695), (58, 12764), (61, 12779), (72, 12836), (104, 12968), (135, 13214),

Gene: Iridessa\_14 Start: 12120, Stop: 12929, Start Num: 10

Candidate Starts for Iridessa\_14:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12363), (58, 12432), (61, 12447), (72, 12504), (104, 12636), (135, 12882),

Gene: Iridoclysis\_14 Start: 12415, Stop: 13233, Start Num: 10

Candidate Starts for Iridoclysis\_14:

(1, 12118), (2, 12187), (4, 12256), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12940), (135, 13186),

Gene: IsaacEli\_14 Start: 12417, Stop: 13265, Start Num: 10

Candidate Starts for IsaacEli\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12972), (135, 13218),

Gene: ItsyBitsy1\_17 Start: 15344, Stop: 16093, Start Num: 10

Candidate Starts for ItsyBitsy1\_17:

(Start: 10 @15344 has 419 MA's), (23, 15497), (25, 15509), (28, 15539), (35, 15575), (42, 15608), (45, 15641), (51, 15695), (54, 15722), (61, 15770), (65, 15788), (76, 15854), (78, 15875), (86, 15920), (88, 15932), (95, 15953),

Gene: JAMaL\_14 Start: 14326, Stop: 15156, Start Num: 10

Candidate Starts for JAMaL\_14:

(Start: 10 @14326 has 419 MA's), (15, 14380), (25, 14485), (26, 14491), (30, 14533), (36, 14542), (52, 14641), (55, 14671), (58, 14680), (61, 14695), (96, 14851), (131, 15040), (135, 15124), (136, 15127),

Gene: JDog\_13 Start: 12120, Stop: 12968, Start Num: 10

Candidate Starts for JDog\_13:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12675), (135, 12921),

Gene: JacAttac\_14 Start: 12408, Stop: 13244, Start Num: 10

Candidate Starts for JacAttac\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12951), (135, 13197),

Gene: Jackstina\_15 Start: 13890, Stop: 14495, Start Num: 10

Candidate Starts for Jackstina\_15:

(Start: 10 @13890 has 419 MA's), (11, 13911), (19, 14007), (35, 14127), (56, 14289), (64, 14328), (68, 14346),

Gene: JaguarMi\_15 Start: 13981, Stop: 14802, Start Num: 10

Candidate Starts for JaguarMi\_15:

(Start: 10 @13981 has 419 MA's), (15, 14035), (25, 14140), (30, 14188), (52, 14296), (58, 14335), (61, 14350), (67, 14371), (70, 14395), (91, 14491), (96, 14506), (97, 14509), (131, 14686), (135, 14770),

Gene: JakeO\_13 Start: 12120, Stop: 12968, Start Num: 10

Candidate Starts for JakeO\_13:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12675), (135, 12921),

Gene: JangoPhett\_14 Start: 12409, Stop: 13245, Start Num: 10

Candidate Starts for JangoPhett\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12409 has 419 MA's), (25, 12568), (28, 12598), (46, 12685), (58, 12754), (61, 12769), (72, 12826), (104, 12952), (135, 13198),

Gene: Jesabah\_14 Start: 12125, Stop: 12973, Start Num: 10

Candidate Starts for Jesabah\_14:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12680), (135, 12926),

Gene: Jillium\_13 Start: 12124, Stop: 12966, Start Num: 10

Candidate Starts for Jillium\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12673), (135, 12919),

Gene: Jiminy\_13 Start: 11966, Stop: 12808, Start Num: 10

Candidate Starts for Jiminy\_13:

(1, 11669), (2, 11738), (4, 11807), (Start: 10 @11966 has 419 MA's), (25, 12125), (28, 12155), (46, 12242), (58, 12311), (61, 12326), (72, 12383), (104, 12515), (135, 12761),

Gene: Jiraiya\_13 Start: 12120, Stop: 12968, Start Num: 10

Candidate Starts for Jiraiya\_13:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12675), (135, 12921),

Gene: Jolie1\_012 Start: 12596, Stop: 13534, Start Num: 10

Candidate Starts for Jolie1\_012:

(Start: 10 @12596 has 419 MA's), (15, 12650), (25, 12749), (58, 12962), (61, 12977), (79, 13067), (85, 13100), (104, 13208),

Gene: JoyceMaria\_14 Start: 14151, Stop: 14975, Start Num: 10

Candidate Starts for JoyceMaria\_14:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (30, 14358), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (91, 14661), (96, 14676), (97, 14679), (131, 14859), (135, 14943), (136, 14946),

Gene: KLucky39\_14 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for KLucky39\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: Kahve\_13 Start: 12127, Stop: 12975, Start Num: 10

Candidate Starts for Kahve\_13:

(1, 11824), (2, 11893), (4, 11962), (Start: 10 @12127 has 419 MA's), (25, 12286), (28, 12316), (46, 12403), (58, 12472), (61, 12487), (72, 12544), (104, 12682), (135, 12928),

Gene: Kailash\_14 Start: 12420, Stop: 13262, Start Num: 10

Candidate Starts for Kailash\_14:

(1, 12123), (2, 12192), (4, 12261), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12969), (135, 13215),

Gene: Kaleb\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for Kaleb\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: Kamiyu\_16 Start: 13935, Stop: 14540, Start Num: 10

Candidate Starts for Kamiyu\_16:

(Start: 10 @13935 has 419 MA's), (11, 13956), (19, 14052), (35, 14172), (56, 14334), (64, 14373), (68, 14391),

Gene: KarasumaRum\_16 Start: 14308, Stop: 14973, Start Num: 10

Candidate Starts for KarasumaRum\_16:

(Start: 10 @14308 has 419 MA's), (17, 14398), (25, 14467), (105, 14899),

Gene: Karn\_13 Start: 12120, Stop: 12968, Start Num: 10

Candidate Starts for Karn\_13:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12675), (135, 12921),

Gene: Katniss\_14 Start: 12418, Stop: 13272, Start Num: 10

Candidate Starts for Katniss\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12979), (135, 13225),

Gene: KayaCho\_12 Start: 12607, Stop: 13527, Start Num: 10

Candidate Starts for KayaCho\_12:

(Start: 10 @12607 has 419 MA's), (15, 12661), (25, 12760), (30, 12808), (36, 12817), (52, 12916), (58, 12955), (61, 12970), (79, 13060), (83, 13084), (85, 13093), (104, 13201), (114, 13270),

Gene: Keitherie\_14 Start: 12425, Stop: 13273, Start Num: 10

Candidate Starts for Keitherie\_14:

(Start: 10 @12425 has 419 MA's), (25, 12584), (28, 12614), (46, 12701), (58, 12770), (61, 12785), (72, 12842), (104, 12980), (135, 13226),

Gene: Khan1\_14 Start: 12120, Stop: 12968, Start Num: 10

Candidate Starts for Khan1\_14:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12675), (135, 12921),

Gene: Kheth\_17 Start: 15353, Stop: 16102, Start Num: 10

Candidate Starts for Kheth\_17:

(Start: 10 @15353 has 419 MA's), (23, 15506), (25, 15518), (28, 15548), (35, 15584), (42, 15617), (45, 15650), (51, 15704), (54, 15731), (61, 15779), (65, 15797), (76, 15863), (78, 15884), (86, 15929), (88, 15941), (95, 15962),

Gene: Kikipoo\_14 Start: 12417, Stop: 13265, Start Num: 10

Candidate Starts for Kikipoo\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12972), (135, 13218),

Gene: Kimbrough\_14 Start: 12127, Stop: 12963, Start Num: 10

Candidate Starts for Kimbrough\_14:

(1, 11824), (2, 11893), (4, 11962), (Start: 10 @12127 has 419 MA's), (25, 12286), (28, 12316), (46, 12403), (58, 12472), (61, 12487), (72, 12544), (104, 12670), (135, 12916),

Gene: KingTut\_13 Start: 12125, Stop: 12955, Start Num: 10

Candidate Starts for KingTut\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12662), (135, 12908),

Gene: KingVeVeVe\_14 Start: 12418, Stop: 13242, Start Num: 10

Candidate Starts for KingVeVeVe\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12949), (135, 13195),

Gene: KlimbOn\_14 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for KlimbOn\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: Kloppinator\_14 Start: 12415, Stop: 13269, Start Num: 10

Candidate Starts for Kloppinator\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12976), (135, 13222),

Gene: Klocker\_19 Start: 16707, Stop: 17675, Start Num: 10

Candidate Starts for Klocker\_19:

(Start: 10 @16707 has 419 MA's), (14, 16752), (15, 16764), (24, 16860), (25, 16869), (29, 16902), (32, 16920), (52, 17025), (58, 17064), (61, 17079), (77, 17169), (91, 17214), (92, 17217), (94, 17223), (99, 17241), (111, 17358), (113, 17376), (115, 17394), (128, 17529), (131, 17559), (133, 17610), (135, 17643),

Gene: Kolhan\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for Kolhan\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: Kronus\_15 Start: 14547, Stop: 15152, Start Num: 10

Candidate Starts for Kronus\_15:

(Start: 10 @14547 has 419 MA's), (11, 14568), (19, 14664), (35, 14784), (56, 14946), (64, 14985), (68, 15003),

Gene: Kwadwo\_13 Start: 12118, Stop: 12954, Start Num: 10

Candidate Starts for Kwadwo\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12661), (135, 12907),

Gene: Kwksand96\_13 Start: 11970, Stop: 12818, Start Num: 10

Candidate Starts for Kwksand96\_13:

(1, 11667), (2, 11736), (4, 11805), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12525), (135, 12771),

Gene: Labeouficaum\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for Labeouficaum\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Lambano\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for Lambano\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Lars\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for Lars\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: Larson\_15 Start: 12428, Stop: 13270, Start Num: 10

Candidate Starts for Larson\_15:

(Start: 10 @12428 has 419 MA's), (25, 12587), (28, 12617), (46, 12704), (58, 12773), (61, 12788), (72, 12845), (104, 12977), (135, 13223),

Gene: LasagnaCat\_14 Start: 12420, Stop: 13256, Start Num: 10

Candidate Starts for LasagnaCat\_14:

(1, 12123), (2, 12192), (4, 12261), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12963), (135, 13209),

Gene: Lasso\_14 Start: 12408, Stop: 13232, Start Num: 10

Candidate Starts for Lasso\_14:

(1, 12105), (2, 12174), (4, 12243), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12939), (135, 13185),

Gene: Laurie\_17 Start: 15348, Stop: 16097, Start Num: 10

Candidate Starts for Laurie\_17:

(Start: 10 @15348 has 419 MA's), (23, 15501), (25, 15513), (28, 15543), (35, 15579), (42, 15612), (45, 15645), (51, 15699), (54, 15726), (61, 15774), (65, 15792), (76, 15858), (78, 15879), (86, 15924), (88, 15936), (95, 15957),

Gene: LeeLot\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for LeeLot\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Lego3393\_14 Start: 12415, Stop: 13269, Start Num: 10

Candidate Starts for Lego3393\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12976), (135, 13222),

Gene: Legolas\_13 Start: 12122, Stop: 12970, Start Num: 10

Candidate Starts for Legolas\_13:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12677), (135, 12923),

Gene: Lehmann\_14 Start: 11967, Stop: 12797, Start Num: 10

Candidate Starts for Lehmann\_14:

(1, 11664), (2, 11733), (4, 11802), (Start: 10 @11967 has 419 MA's), (25, 12126), (28, 12156), (46, 12243), (58, 12312), (61, 12327), (72, 12384), (104, 12504), (135, 12750),

Gene: LeiMonet\_14 Start: 12120, Stop: 12962, Start Num: 10

Candidate Starts for LeiMonet\_14:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12669), (135, 12915),

Gene: LemonSlice\_14 Start: 12128, Stop: 12964, Start Num: 10

Candidate Starts for LemonSlice\_14:

(1, 11825), (2, 11894), (4, 11963), (Start: 10 @12128 has 419 MA's), (25, 12287), (28, 12317), (46, 12404), (58, 12473), (61, 12488), (72, 12545), (104, 12671), (135, 12917),

Gene: Lephleur\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for Lephleur\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (49, 15662), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: LestyG\_16 Start: 13968, Stop: 14573, Start Num: 10

Candidate Starts for LestyG\_16:

(Start: 10 @13968 has 419 MA's), (11, 13989), (19, 14085), (35, 14205), (56, 14367), (64, 14406), (68, 14424),

Gene: LilMcDreamy\_15 Start: 14910, Stop: 15785, Start Num: 10

Candidate Starts for LilMcDreamy\_15:

(Start: 10 @14910 has 419 MA's), (15, 14964), (25, 15069), (26, 15075), (27, 15093), (30, 15117), (53, 15234), (64, 15288), (79, 15366), (114, 15525), (120, 15552), (136, 15753),

Gene: LilSmirk\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for LilSmirk\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: LittleDigger\_13 Start: 13064, Stop: 13915, Start Num: 10

Candidate Starts for LittleDigger\_13:

(Start: 10 @13064 has 419 MA's), (15, 13118), (25, 13223), (30, 13271), (36, 13280), (52, 13379), (58, 13418), (61, 13433), (84, 13565), (89, 13568), (96, 13589), (97, 13592), (131, 13799), (135, 13883),

Gene: LittleMinkey\_20 Start: 13704, Stop: 14687, Start Num: 10

Candidate Starts for LittleMinkey\_20:

(Start: 10 @13704 has 419 MA's), (13, 13746), (15, 13761), (25, 13866), (29, 13899), (58, 14100), (62, 14118), (77, 14214), (81, 14232), (117, 14466), (129, 14550),

Gene: LittleMunchkin\_14 Start: 13719, Stop: 14384, Start Num: 10

Candidate Starts for LittleMunchkin\_14:

(Start: 10 @13719 has 419 MA's), (15, 13773), (20, 13842), (37, 13935), (57, 14049), (58, 14055), (74, 14136), (76, 14142), (81, 14175), (98, 14226), (106, 14286), (110, 14307),

Gene: LizLemon\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for LizLemon\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: Lolalove\_14 Start: 14148, Stop: 14972, Start Num: 10

Candidate Starts for Lolalove\_14:

(Start: 10 @14148 has 419 MA's), (15, 14202), (25, 14307), (30, 14355), (36, 14364), (52, 14463), (58, 14502), (61, 14517), (91, 14658), (96, 14673), (97, 14676), (131, 14856), (135, 14940), (136, 14943),

Gene: Longacauda\_13 Start: 12114, Stop: 12956, Start Num: 10

Candidate Starts for Longacauda\_13:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12114 has 419 MA's), (25, 12273), (28, 12303), (46, 12390), (58, 12459), (61, 12474), (72, 12531), (104, 12663), (135, 12909),

Gene: Lopsy\_13 Start: 11964, Stop: 12812, Start Num: 10

Candidate Starts for Lopsy\_13:

(1, 11661), (2, 11730), (4, 11799), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12519), (135, 12765),

Gene: LostAndPhound\_13 Start: 12124, Stop: 12966, Start Num: 10

Candidate Starts for LostAndPhound\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12673), (135, 12919),

Gene: LuckyMarjie\_13 Start: 12124, Stop: 12978, Start Num: 10

Candidate Starts for LuckyMarjie\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12685), (135, 12931),

Gene: Lulumae\_13 Start: 12119, Stop: 12955, Start Num: 10

Candidate Starts for Lulumae\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12662), (135, 12908),

Gene: Lulwa\_14 Start: 12420, Stop: 13244, Start Num: 10

Candidate Starts for Lulwa\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12951), (135, 13197),

Gene: Lumine\_13 Start: 12106, Stop: 12948, Start Num: 10

Candidate Starts for Lumine\_13:

(1, 11809), (2, 11878), (4, 11947), (Start: 10 @12106 has 419 MA's), (25, 12265), (28, 12295), (46, 12382), (58, 12451), (61, 12466), (72, 12523), (104, 12655), (135, 12901),

Gene: MRabcd\_13 Start: 12121, Stop: 12957, Start Num: 10

Candidate Starts for MRabcd\_13:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12121 has 419 MA's), (25, 12280), (28, 12310), (46, 12397), (58, 12466), (61, 12481), (72, 12538), (104, 12664), (135, 12910),

Gene: Mag7\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for Mag7\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Magic8\_14 Start: 12408, Stop: 13250, Start Num: 10

Candidate Starts for Magic8\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12957), (135, 13203),

Gene: Magpie\_14 Start: 14306, Stop: 15157, Start Num: 10

Candidate Starts for Magpie\_14:

(Start: 10 @14306 has 419 MA's), (15, 14360), (25, 14465), (30, 14513), (36, 14522), (52, 14621), (58, 14660), (61, 14675), (91, 14816), (96, 14831), (123, 14948), (131, 15041), (135, 15125),

Gene: Mana\_13 Start: 12124, Stop: 12960, Start Num: 10

Candidate Starts for Mana\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12667), (135, 12913),

Gene: Manad\_13 Start: 11968, Stop: 12810, Start Num: 10

Candidate Starts for Manad\_13:

(1, 11665), (2, 11734), (4, 11803), (Start: 10 @11968 has 419 MA's), (25, 12127), (28, 12157), (46, 12244), (58, 12313), (61, 12328), (72, 12385), (104, 12517), (135, 12763),

Gene: Marley1013\_16 Start: 14748, Stop: 15353, Start Num: 10

Candidate Starts for Marley1013\_16:

(Start: 10 @14748 has 419 MA's), (11, 14769), (19, 14865), (56, 15147), (68, 15204),

Gene: Marlia\_16 Start: 13950, Stop: 14555, Start Num: 10

Candidate Starts for Marlia\_16:

(Start: 10 @13950 has 419 MA's), (11, 13971), (19, 14067), (35, 14187), (56, 14349), (68, 14406),

Gene: Maru\_13 Start: 12122, Stop: 12958, Start Num: 10

Candidate Starts for Maru\_13:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12665), (135, 12911),

Gene: Maskar\_13 Start: 11958, Stop: 12800, Start Num: 10

Candidate Starts for Maskar\_13:

(1, 11661), (2, 11730), (4, 11799), (Start: 10 @11958 has 419 MA's), (25, 12117), (28, 12147), (46, 12234), (58, 12303), (61, 12318), (72, 12375), (104, 12507), (135, 12753),

Gene: MasterPo\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for MasterPo\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (49, 15662), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: Matalotodo\_14 Start: 12412, Stop: 13248, Start Num: 10

Candidate Starts for Matalotodo\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12955), (135, 13201),

Gene: Mcshane\_13 Start: 12118, Stop: 12954, Start Num: 10

Candidate Starts for Mcshane\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12661), (135, 12907),

Gene: Mecca\_13 Start: 12115, Stop: 12951, Start Num: 10

Candidate Starts for Mecca\_13:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12115 has 419 MA's), (25, 12274), (28, 12304), (46, 12391), (58, 12460), (61, 12475), (72, 12532), (104, 12658), (135, 12904),

Gene: Megamind20\_14 Start: 12125, Stop: 12973, Start Num: 10

Candidate Starts for Megamind20\_14:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12680), (135, 12926),

Gene: Megatron\_14 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for Megatron\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: Melc17\_14 Start: 12408, Stop: 13244, Start Num: 10

Candidate Starts for Melc17\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12951), (135, 13197),

Gene: MelsMeow\_13 Start: 11964, Stop: 12812, Start Num: 10

Candidate Starts for MelsMeow\_13:

(1, 11667), (2, 11736), (4, 11805), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12519), (135, 12765),

Gene: Mesh1\_14 Start: 12420, Stop: 13262, Start Num: 10

Candidate Starts for Mesh1\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12969), (135, 13215),

Gene: Mesmerelda\_13 Start: 12118, Stop: 12954, Start Num: 10

Candidate Starts for Mesmerelda\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12661), (135, 12907),

Gene: MichaelPhcott\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for MichaelPhcott\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Mikota\_14 Start: 12415, Stop: 13239, Start Num: 10

Candidate Starts for Mikota\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12946), (135, 13192),

Gene: MiniBoss\_14 Start: 12417, Stop: 13241, Start Num: 10

Candidate Starts for MiniBoss\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12948), (135, 13194),

Gene: MitKao\_14 Start: 12124, Stop: 12960, Start Num: 10

Candidate Starts for MitKao\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12667), (135, 12913),

Gene: Mithril\_14 Start: 14151, Stop: 14975, Start Num: 10

Candidate Starts for Mithril\_14:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (30, 14358), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (91, 14661), (96, 14676), (97, 14679), (131, 14859), (135, 14943), (136, 14946),

Gene: MmasiCarm\_16 Start: 13961, Stop: 14566, Start Num: 10

Candidate Starts for MmasiCarm\_16:

(Start: 10 @13961 has 419 MA's), (11, 13982), (19, 14078), (35, 14198), (56, 14360), (64, 14399), (68, 14417),

Gene: Morgushi\_14 Start: 12122, Stop: 12964, Start Num: 10

Candidate Starts for Morgushi\_14:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12671), (135, 12917),

Gene: Mortcellus\_15 Start: 14602, Stop: 15207, Start Num: 10

Candidate Starts for Mortcellus\_15:

(Start: 10 @14602 has 419 MA's), (11, 14623), (19, 14719), (35, 14839), (56, 15001), (68, 15058),

Gene: Morty\_14 Start: 12414, Stop: 13262, Start Num: 10

Candidate Starts for Morty\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12969), (135, 13215),

Gene: Morty007\_16 Start: 14748, Stop: 15353, Start Num: 10

Candidate Starts for Morty007\_16:

(Start: 10 @14748 has 419 MA's), (11, 14769), (19, 14865), (56, 15147), (68, 15204),

Gene: Mosaic\_13 Start: 12125, Stop: 12967, Start Num: 10

Candidate Starts for Mosaic\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12674), (135, 12920),

Gene: MrPhizzler\_14 Start: 12117, Stop: 12965, Start Num: 10

Candidate Starts for MrPhizzler\_14:

(1, 11814), (2, 11883), (4, 11952), (Start: 10 @12117 has 419 MA's), (25, 12276), (28, 12306), (46, 12393), (58, 12462), (61, 12477), (72, 12534), (104, 12672), (135, 12918),

Gene: Mudslide\_14 Start: 14399, Stop: 15220, Start Num: 10

Candidate Starts for Mudslide\_14:

(Start: 10 @14399 has 419 MA's), (15, 14453), (25, 14558), (30, 14606), (36, 14615), (52, 14714), (58, 14753), (61, 14768), (91, 14909), (96, 14924), (131, 15104), (135, 15188), (136, 15191),

Gene: Mulan\_13 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for Mulan\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: Mulaychimus\_16 Start: 13941, Stop: 14546, Start Num: 10

Candidate Starts for Mulaychimus\_16:

(Start: 10 @13941 has 419 MA's), (11, 13962), (19, 14058), (35, 14178), (56, 14340), (64, 14379), (68, 14397),

Gene: Murdoc\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Murdoc\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Mutante\_13 Start: 12121, Stop: 12963, Start Num: 10

Candidate Starts for Mutante\_13:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12121 has 419 MA's), (25, 12280), (28, 12310), (46, 12397), (58, 12466), (61, 12481), (72, 12538), (104, 12670), (135, 12916),

Gene: Mysterious\_15 Start: 14410, Stop: 15075, Start Num: 10

Candidate Starts for Mysterious\_15:

(Start: 10 @14410 has 419 MA's), (15, 14464), (17, 14500), (25, 14569), (59, 14770), (105, 15001), (112, 15046),

Gene: Nacho\_0014 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for Nacho\_0014:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: Nanao\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for Nanao\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Nangang\_15 Start: 14152, Stop: 14817, Start Num: 10

Candidate Starts for Nangang\_15:

(Start: 10 @14152 has 419 MA's), (17, 14242), (25, 14311), (105, 14743), (112, 14788),

Gene: Nathan\_14 Start: 12415, Stop: 13263, Start Num: 10

Candidate Starts for Nathan\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12970), (135, 13216),

Gene: Nehemiah\_14 Start: 14410, Stop: 15075, Start Num: 10

Candidate Starts for Nehemiah\_14:

(Start: 10 @14410 has 419 MA's), (15, 14464), (17, 14500), (25, 14569), (59, 14770), (105, 15001), (112, 15046),

Gene: Neos5\_16 Start: 14754, Stop: 15359, Start Num: 10

Candidate Starts for Neos5\_16:

(Start: 10 @14754 has 419 MA's), (11, 14775), (19, 14871), (56, 15153), (64, 15192), (68, 15210),

Gene: Newman\_14 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for Newman\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: Nicole21\_14 Start: 12409, Stop: 13245, Start Num: 10

Candidate Starts for Nicole21\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12409 has 419 MA's), (25, 12568), (28, 12598), (46, 12685), (58, 12754), (61, 12769), (72, 12826), (104, 12952), (135, 13198),

Gene: Nigel\_12 Start: 12973, Stop: 13824, Start Num: 10

Candidate Starts for Nigel\_12:

(Start: 10 @12973 has 419 MA's), (25, 13132), (26, 13138), (30, 13180), (36, 13189), (52, 13288), (55, 13318), (58, 13327), (61, 13342), (96, 13498), (109, 13588), (131, 13708), (135, 13792), (136, 13795),

Gene: Nozo\_16 Start: 14729, Stop: 15334, Start Num: 10

Candidate Starts for Nozo\_16:

(Start: 10 @14729 has 419 MA's), (11, 14750), (19, 14846), (35, 14966), (56, 15128), (64, 15167), (68, 15185),

Gene: Numberten\_14 Start: 12420, Stop: 13256, Start Num: 10

Candidate Starts for Numberten\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12963), (135, 13209),

Gene: Nyala\_13 Start: 12119, Stop: 12955, Start Num: 10

Candidate Starts for Nyala\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12662), (135, 12908),

Gene: OSmaximus\_14 Start: 12415, Stop: 13263, Start Num: 10

Candidate Starts for OSmaximus\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12970), (135, 13216),

Gene: Obutu\_16 Start: 13959, Stop: 14564, Start Num: 10

Candidate Starts for Obutu\_16:

(Start: 10 @13959 has 419 MA's), (11, 13980), (19, 14076), (35, 14196), (56, 14358), (64, 14397), (68, 14415),

Gene: Olak\_13 Start: 12116, Stop: 12952, Start Num: 10

Candidate Starts for Olak\_13:

(1, 11819), (2, 11888), (4, 11957), (Start: 10 @12116 has 419 MA's), (25, 12275), (28, 12305), (46, 12392), (58, 12461), (61, 12476), (72, 12533), (104, 12659), (135, 12905),

Gene: Oline\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for Oline\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Olive\_14 Start: 12414, Stop: 13244, Start Num: 10

Candidate Starts for Olive\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12951), (135, 13197),

Gene: OliverWalter\_14 Start: 12413, Stop: 13261, Start Num: 10

Candidate Starts for OliverWalter\_14:

(1, 12110), (2, 12179), (4, 12248), (Start: 10 @12413 has 419 MA's), (25, 12572), (28, 12602), (46, 12689), (58, 12758), (61, 12773), (72, 12830), (104, 12968), (135, 13214),

Gene: Olivio\_15 Start: 13813, Stop: 14418, Start Num: 10

Candidate Starts for Olivio\_15:

(Start: 10 @13813 has 419 MA's), (11, 13834), (19, 13930), (35, 14050), (56, 14212), (64, 14251), (68, 14269),

Gene: Omniscient\_14 Start: 12420, Stop: 13262, Start Num: 10

Candidate Starts for Omniscient\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12969), (135, 13215),

Gene: Oosterbaan\_14 Start: 12412, Stop: 13254, Start Num: 10

Candidate Starts for Oosterbaan\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12961), (135, 13207),

Gene: Opia\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for Opia\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: OrangeOswald\_16 Start: 13964, Stop: 14569, Start Num: 10

Candidate Starts for OrangeOswald\_16:

(Start: 10 @13964 has 419 MA's), (11, 13985), (19, 14081), (35, 14201), (56, 14363), (64, 14402), (68, 14420),

Gene: Orfeu\_13 Start: 12117, Stop: 12953, Start Num: 10

Candidate Starts for Orfeu\_13:

(1, 11820), (2, 11889), (4, 11958), (Start: 10 @12117 has 419 MA's), (25, 12276), (28, 12306), (46, 12393), (58, 12462), (61, 12477), (72, 12534), (104, 12660), (135, 12906),

Gene: Orion\_14 Start: 12412, Stop: 13254, Start Num: 10

Candidate Starts for Orion\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12961), (135, 13207),

Gene: Orwigg\_13 Start: 12122, Stop: 12946, Start Num: 10

Candidate Starts for Orwigg\_13:

(1, 11825), (2, 11894), (4, 11963), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12653), (135, 12899),

Gene: PG1\_14 Start: 12418, Stop: 13266, Start Num: 10

Candidate Starts for PG1\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12973), (135, 13219),

Gene: Pacifista\_13 Start: 12115, Stop: 12957, Start Num: 10

Candidate Starts for Pacifista\_13:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12115 has 419 MA's), (25, 12274), (28, 12304), (46, 12391), (58, 12460), (61, 12475), (72, 12532), (104, 12664), (135, 12910),

Gene: PallasAthena\_14 Start: 12119, Stop: 12961, Start Num: 10

Candidate Starts for PallasAthena\_14:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12668), (135, 12914),

Gene: PenguinLover67\_17 Start: 15047, Stop: 16012, Start Num: 10

Candidate Starts for PenguinLover67\_17:

(Start: 10 @15047 has 419 MA's), (15, 15101), (25, 15206), (38, 15317), (103, 15737), (128, 15869), (129, 15872),

Gene: Phaedrus\_15 Start: 13882, Stop: 14487, Start Num: 10

Candidate Starts for Phaedrus\_15:

(Start: 10 @13882 has 419 MA's), (11, 13903), (19, 13999), (35, 14119), (56, 14281), (64, 14320), (68, 14338),

Gene: Phamished\_14 Start: 12417, Stop: 13259, Start Num: 10

Candidate Starts for Phamished\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12966), (135, 13212),

Gene: Phantasmagoria\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for Phantasmagoria\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: Phareon\_14 Start: 12124, Stop: 12960, Start Num: 10

Candidate Starts for Phareon\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12667), (135, 12913),

Gene: PhatCats2014\_14 Start: 12421, Stop: 13269, Start Num: 10

Candidate Starts for PhatCats2014\_14:

(1, 12118), (2, 12187), (4, 12256), (Start: 10 @12421 has 419 MA's), (25, 12580), (28, 12610), (46, 12697), (58, 12766), (61, 12781), (72, 12838), (104, 12976), (135, 13222),

Gene: PhatLouie\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for PhatLouie\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Phayeta\_16 Start: 13840, Stop: 14445, Start Num: 10

Candidate Starts for Phayeta\_16:

(Start: 10 @13840 has 419 MA's), (11, 13861), (19, 13957), (35, 14077), (56, 14239), (64, 14278), (68, 14296),

Gene: Phelemich\_15 Start: 14414, Stop: 15079, Start Num: 10

Candidate Starts for Phelemich\_15:

(Start: 10 @14414 has 419 MA's), (15, 14468), (17, 14504), (25, 14573), (105, 15005), (112, 15050),

Gene: PhenghisKhan\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for PhenghisKhan\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Pherdinand\_14 Start: 12415, Stop: 13257, Start Num: 10

Candidate Starts for Pherdinand\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12964), (135, 13210),

Gene: Phergie\_13 Start: 11964, Stop: 12806, Start Num: 10

Candidate Starts for Phergie\_13:

(1, 11667), (2, 11736), (4, 11805), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12513), (135, 12759),

Gene: Philly\_15 Start: 13830, Stop: 14435, Start Num: 10

Candidate Starts for Philly\_15:

(Start: 10 @13830 has 419 MA's), (11, 13851), (19, 13947), (21, 13956), (35, 14067), (56, 14229), (64, 14268), (68, 14286),

Gene: Phipps\_14 Start: 12408, Stop: 13232, Start Num: 10

Candidate Starts for Phipps\_14:

(1, 12105), (2, 12174), (4, 12243), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12939), (135, 13185),

Gene: Phleuron\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for Phleuron\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Phlyer\_16 Start: 14698, Stop: 15303, Start Num: 10

Candidate Starts for Phlyer\_16:

(Start: 10 @14698 has 419 MA's), (11, 14719), (19, 14815), (35, 14935), (56, 15097), (64, 15136), (68, 15154),

Gene: PhrankReynolds\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for PhrankReynolds\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: PhrodoBaggins\_13 Start: 12411, Stop: 13247, Start Num: 10

Candidate Starts for PhrodoBaggins\_13:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12954), (135, 13200),

Gene: Phunky\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Phunky\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Piglet\_0013 Start: 12420, Stop: 13256, Start Num: 10

Candidate Starts for Piglet\_0013:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12963), (135, 13209),

Gene: PinheadLarry\_14 Start: 12124, Stop: 12972, Start Num: 10

Candidate Starts for PinheadLarry\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12679), (135, 12925),

Gene: Pinkman\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for Pinkman\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: Pipefish\_16 Start: 14848, Stop: 15453, Start Num: 10

Candidate Starts for Pipefish\_16:

(Start: 10 @14848 has 419 MA's), (11, 14869), (19, 14965), (56, 15247),

Gene: Pipsqueak\_14 Start: 12417, Stop: 13259, Start Num: 10

Candidate Starts for Pipsqueak\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12966), (135, 13212),

Gene: Placalicious\_13 Start: 12118, Stop: 12954, Start Num: 10

Candidate Starts for Placalicious\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12661), (135, 12907),

Gene: Plata\_14 Start: 12120, Stop: 12968, Start Num: 10

Candidate Starts for Plata\_14:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12675), (135, 12921),

Gene: Plmatters\_14 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for Plmatters\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: Podrick\_14 Start: 12420, Stop: 13244, Start Num: 10

Candidate Starts for Podrick\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12951), (135, 13197),

Gene: Pops\_14 Start: 12414, Stop: 13256, Start Num: 10

Candidate Starts for Pops\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12963), (135, 13209),

Gene: Poster\_13 Start: 13057, Stop: 13908, Start Num: 10

Candidate Starts for Poster\_13:

(Start: 10 @13057 has 419 MA's), (15, 13111), (25, 13216), (30, 13264), (36, 13273), (52, 13372), (58, 13411), (61, 13426), (84, 13558), (89, 13561), (96, 13582), (97, 13585), (131, 13792), (135, 13876),

Gene: Potter\_13 Start: 12125, Stop: 12967, Start Num: 10

Candidate Starts for Potter\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12674), (135, 12920),

Gene: Prickles\_14 Start: 12423, Stop: 13247, Start Num: 10

Candidate Starts for Prickles\_14:

(1, 12120), (2, 12189), (4, 12258), (Start: 10 @12423 has 419 MA's), (25, 12582), (28, 12612), (46, 12699), (58, 12768), (61, 12783), (72, 12840), (104, 12954), (135, 13200),

Gene: Prince\_14 Start: 14311, Stop: 15132, Start Num: 10

Candidate Starts for Prince\_14:

(Start: 10 @14311 has 419 MA's), (15, 14365), (25, 14470), (30, 14518), (36, 14527), (52, 14626), (58, 14665), (61, 14680), (91, 14821), (96, 14836), (131, 15016), (135, 15100), (136, 15103),

Gene: PrinceCharming\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for PrinceCharming\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: ProfessorX\_14 Start: 12409, Stop: 13245, Start Num: 10

Candidate Starts for ProfessorX\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12409 has 419 MA's), (25, 12568), (28, 12598), (46, 12685), (58, 12754), (61, 12769), (72, 12826), (104, 12952), (135, 13198),

Gene: Puhltonio\_14 Start: 12408, Stop: 13262, Start Num: 10

Candidate Starts for Puhltonio\_14:

(1, 12105), (2, 12174), (4, 12243), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12969), (135, 13215),

Gene: QueenBeane\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for QueenBeane\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: QueenPie\_14 Start: 14655, Stop: 15506, Start Num: 10

Candidate Starts for QueenPie\_14:

(Start: 10 @14655 has 419 MA's), (15, 14709), (25, 14814), (30, 14862), (36, 14871), (52, 14970), (58, 15009), (61, 15024), (84, 15156), (89, 15159), (96, 15180), (97, 15183), (131, 15390), (135, 15474),

Gene: Quesadilla\_16 Start: 14845, Stop: 15846, Start Num: 10

Candidate Starts for Quesadilla\_16:

(Start: 10 @14845 has 419 MA's), (15, 14899), (25, 15004), (38, 15118), (77, 15391), (103, 15541), (121, 15634), (128, 15703), (129, 15706), (134, 15799), (135, 15817),

Gene: Quisquilliae\_14 Start: 12420, Stop: 13268, Start Num: 10

Candidate Starts for Quisquilliae\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12975), (135, 13221),

Gene: Qyrzula\_16 Start: 15440, Stop: 16189, Start Num: 10

Candidate Starts for Qyrzula\_16:

(Start: 10 @15440 has 419 MA's), (23, 15593), (25, 15605), (28, 15635), (35, 15671), (42, 15704), (45, 15737), (49, 15752), (51, 15791), (54, 15818), (61, 15866), (65, 15884), (76, 15950), (78, 15971), (86, 16016), (88, 16028), (95, 16049),

Gene: RagingRooster\_16 Start: 13965, Stop: 14570, Start Num: 10

Candidate Starts for RagingRooster\_16:

(Start: 10 @13965 has 419 MA's), (11, 13986), (19, 14082), (35, 14202), (56, 14364), (64, 14403), (68, 14421),

Gene: RawrgerThat\_14 Start: 14145, Stop: 14969, Start Num: 10

Candidate Starts for RawrgerThat\_14:

(Start: 10 @14145 has 419 MA's), (15, 14199), (25, 14304), (30, 14352), (36, 14361), (52, 14460), (58, 14499), (61, 14514), (70, 14559), (84, 14646), (89, 14649), (96, 14670), (97, 14673), (131, 14853), (135, 14937), (136, 14940),

Gene: Reccee\_16 Start: 14348, Stop: 15013, Start Num: 10

Candidate Starts for Reccee\_16:

(Start: 10 @14348 has 419 MA's), (15, 14402), (17, 14438), (25, 14507), (105, 14939), (112, 14984),

Gene: RedMaple\_13 Start: 12411, Stop: 13265, Start Num: 10

Candidate Starts for RedMaple\_13:

(1, 12108), (2, 12177), (4, 12246), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12972), (135, 13218),

Gene: RedRaider89\_14 Start: 12649, Stop: 13485, Start Num: 10

Candidate Starts for RedRaider89\_14:

(1, 12346), (2, 12415), (4, 12484), (Start: 10 @12649 has 419 MA's), (25, 12808), (28, 12838), (46, 12925), (58, 12994), (61, 13009), (72, 13066), (104, 13192), (135, 13438),

Gene: Renkei\_13 Start: 13064, Stop: 13915, Start Num: 10

Candidate Starts for Renkei\_13:

(Start: 10 @13064 has 419 MA's), (15, 13118), (25, 13223), (30, 13271), (36, 13280), (52, 13379), (58, 13418), (61, 13433), (84, 13565), (89, 13568), (96, 13589), (97, 13592), (131, 13799), (135, 13883),

Gene: Reprobate\_15 Start: 14411, Stop: 15076, Start Num: 10

Candidate Starts for Reprobate\_15:

(Start: 10 @14411 has 419 MA's), (15, 14465), (17, 14501), (25, 14570), (105, 15002), (112, 15047),

Gene: Rhinoforte\_17 Start: 15467, Stop: 16216, Start Num: 10

Candidate Starts for Rhinoforte\_17:

(Start: 10 @15467 has 419 MA's), (23, 15620), (25, 15632), (28, 15662), (35, 15698), (42, 15731), (45, 15764), (51, 15818), (54, 15845), (61, 15893), (65, 15911), (76, 15977), (78, 15998), (86, 16043), (88, 16055), (95, 16076),

Gene: Rich\_15 Start: 14166, Stop: 14975, Start Num: 10

Candidate Starts for Rich\_15:

(Start: 10 @14166 has 419 MA's), (12, 14190), (15, 14220), (17, 14256), (25, 14325), (102, 14724), (105, 14766), (112, 14811), (126, 14898), (130, 14943),

Gene: Ricotta\_13 Start: 12123, Stop: 12977, Start Num: 10

Candidate Starts for Ricotta\_13:

(1, 11820), (2, 11889), (4, 11958), (Start: 10 @12123 has 419 MA's), (25, 12282), (28, 12312), (46, 12399), (58, 12468), (61, 12483), (72, 12540), (104, 12684), (135, 12930),

Gene: Riggan\_14 Start: 12415, Stop: 13233, Start Num: 10

Candidate Starts for Riggan\_14:

(1, 12118), (2, 12187), (4, 12256), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12940), (135, 13186),

Gene: Rimu\_14 Start: 12117, Stop: 12965, Start Num: 10

Candidate Starts for Rimu\_14:

(1, 11814), (2, 11883), (4, 11952), (Start: 10 @12117 has 419 MA's), (25, 12276), (28, 12306), (46, 12393), (58, 12462), (61, 12477), (72, 12534), (104, 12672), (135, 12918),

Gene: Rinkes\_19 Start: 16207, Stop: 17280, Start Num: 10

Candidate Starts for Rinkes\_19:

(Start: 10 @16207 has 419 MA's), (15, 16264), (16, 16291), (25, 16369), (28, 16399), (31, 16420), (55, 16627), (58, 16636), (61, 16651), (81, 16774), (84, 16792), (87, 16810), (94, 16834), (104, 16921), (107, 16942), (113, 16987), (115, 17002), (125, 17059), (128, 17140), (129, 17143), (135, 17254),

Gene: Rita130\_15 Start: 14168, Stop: 14833, Start Num: 10

Candidate Starts for Rita130\_15:

(Start: 10 @14168 has 419 MA's), (15, 14222), (17, 14258), (25, 14327), (105, 14759), (112, 14804),

Gene: Rita1961\_16 Start: 13960, Stop: 14565, Start Num: 10

Candidate Starts for Rita1961\_16:

(Start: 10 @13960 has 419 MA's), (11, 13981), (19, 14077), (35, 14197), (56, 14359), (68, 14416),

Gene: Riverton\_13 Start: 12417, Stop: 13259, Start Num: 10

Candidate Starts for Riverton\_13:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12966), (135, 13212),

Gene: Robyn\_13 Start: 11972, Stop: 12826, Start Num: 10

Candidate Starts for Robyn\_13:

(1, 11669), (2, 11738), (4, 11807), (Start: 10 @11972 has 419 MA's), (25, 12131), (28, 12161), (46, 12248), (58, 12317), (61, 12332), (72, 12389), (104, 12533), (135, 12779),

Gene: Roliet\_14 Start: 12417, Stop: 13253, Start Num: 10

Candidate Starts for Roliet\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12960), (135, 13206),

Gene: RomaT\_16 Start: 14745, Stop: 15350, Start Num: 10

Candidate Starts for RomaT\_16:

(Start: 10 @14745 has 419 MA's), (11, 14766), (19, 14862), (35, 14982), (56, 15144), (64, 15183), (68, 15201),

Gene: Roscoe\_15 Start: 12646, Stop: 13494, Start Num: 10

Candidate Starts for Roscoe\_15:

(1, 12349), (2, 12418), (4, 12487), (Start: 10 @12646 has 419 MA's), (25, 12805), (28, 12835), (46, 12922), (58, 12991), (61, 13006), (72, 13063), (104, 13201), (135, 13447),

Gene: Rosebush\_17 Start: 15467, Stop: 16216, Start Num: 10

Candidate Starts for Rosebush\_17:

(Start: 10 @15467 has 419 MA's), (23, 15620), (25, 15632), (28, 15662), (35, 15698), (42, 15731), (45, 15764), (51, 15818), (54, 15845), (61, 15893), (65, 15911), (76, 15977), (78, 15998), (86, 16043), (88, 16055), (95, 16076),

Gene: Roy17\_14 Start: 12119, Stop: 12955, Start Num: 10

Candidate Starts for Roy17\_14:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12662), (135, 12908),

Gene: SDcharge11\_14 Start: 12410, Stop: 13234, Start Num: 10

Candidate Starts for SDcharge11\_14:

(1, 12107), (2, 12176), (4, 12245), (Start: 10 @12410 has 419 MA's), (25, 12569), (28, 12599), (46, 12686), (58, 12755), (61, 12770), (72, 12827), (104, 12941), (135, 13187),

Gene: Sabella\_17 Start: 15353, Stop: 16102, Start Num: 10

Candidate Starts for Sabella\_17:

(Start: 10 @15353 has 419 MA's), (23, 15506), (25, 15518), (28, 15548), (35, 15584), (42, 15617), (45, 15650), (51, 15704), (54, 15731), (61, 15779), (65, 15797), (76, 15863), (78, 15884), (86, 15929), (88, 15941), (95, 15962),

Gene: Saguaro\_16 Start: 15049, Stop: 16023, Start Num: 10

Candidate Starts for Saguaro\_16:

(Start: 10 @15049 has 419 MA's), (15, 15103), (18, 15142), (22, 15184), (33, 15277), (38, 15322), (52, 15439), (77, 15592), (101, 15682), (128, 15871), (129, 15874), (132, 15943), (135, 15994),

Gene: SallyH\_14 Start: 12415, Stop: 13263, Start Num: 10

Candidate Starts for SallyH\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12970), (135, 13216),

Gene: Samaymay\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Samaymay\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: SassyCat97\_13 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for SassyCat97\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: Schadenfreude\_13 Start: 11962, Stop: 12810, Start Num: 10

Candidate Starts for Schadenfreude\_13:

(1, 11659), (2, 11728), (4, 11797), (Start: 10 @11962 has 419 MA's), (25, 12121), (28, 12151), (46, 12238), (58, 12307), (61, 12322), (72, 12379), (104, 12517), (135, 12763),

Gene: Schueller\_13 Start: 12115, Stop: 12951, Start Num: 10

Candidate Starts for Schueller\_13:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12115 has 419 MA's), (25, 12274), (28, 12304), (46, 12391), (58, 12460), (61, 12475), (72, 12532), (104, 12658), (135, 12904),

Gene: Scoot17C\_14 Start: 12418, Stop: 13254, Start Num: 10

Candidate Starts for Scoot17C\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12961), (135, 13207),

Gene: Scrick\_13 Start: 12125, Stop: 12973, Start Num: 10

Candidate Starts for Scrick\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12680), (135, 12926),

Gene: Selr12\_14 Start: 12124, Stop: 12978, Start Num: 10

Candidate Starts for Selr12\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12685), (135, 12931),

Gene: Serendipitous\_15 Start: 14216, Stop: 15022, Start Num: 10

Candidate Starts for Serendipitous\_15:

(Start: 10 @14216 has 419 MA's), (15, 14270), (17, 14306), (25, 14375), (105, 14816), (112, 14861), (122, 14906), (126, 14948), (130, 14993),

Gene: Serendipity\_14 Start: 12420, Stop: 13274, Start Num: 10

Candidate Starts for Serendipity\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12981), (135, 13227),

Gene: Serpentine\_0014 Start: 12420, Stop: 13256, Start Num: 10

Candidate Starts for Serpentine\_0014:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12963), (135, 13209),

Gene: ShadowBud\_14 Start: 12420, Stop: 13268, Start Num: 10

Candidate Starts for ShadowBud\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12975), (135, 13221),

Gene: Sheila\_14 Start: 12415, Stop: 13245, Start Num: 10

Candidate Starts for Sheila\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12952), (135, 13198),

Gene: Shenandoah\_16 Start: 13943, Stop: 14548, Start Num: 10

Candidate Starts for Shenandoah\_16:

(Start: 10 @13943 has 419 MA's), (11, 13964), (19, 14060), (35, 14180), (56, 14342), (64, 14381), (68, 14399),

Gene: Shenyu\_15 Start: 14152, Stop: 14817, Start Num: 10

Candidate Starts for Shenyu\_15:

(Start: 10 @14152 has 419 MA's), (17, 14242), (25, 14311), (105, 14743), (112, 14788),

Gene: ShiVal\_14 Start: 12411, Stop: 13247, Start Num: 10

Candidate Starts for ShiVal\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12954), (135, 13200),

Gene: Sigman\_14 Start: 12408, Stop: 13244, Start Num: 10

Candidate Starts for Sigman\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12951), (135, 13197),

Gene: SilverBell\_14 Start: 12411, Stop: 13259, Start Num: 10

Candidate Starts for SilverBell\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12966), (135, 13212),

Gene: Simielle\_13 Start: 12109, Stop: 12945, Start Num: 10

Candidate Starts for Simielle\_13:

(1, 11812), (2, 11881), (4, 11950), (Start: 10 @12109 has 419 MA's), (25, 12268), (28, 12298), (46, 12385), (58, 12454), (61, 12469), (72, 12526), (104, 12652), (135, 12898),

Gene: SirBeauregard\_13 Start: 12078, Stop: 12920, Start Num: 10

Candidate Starts for SirBeauregard\_13:

(1, 11775), (2, 11844), (4, 11913), (Start: 10 @12078 has 419 MA's), (25, 12237), (28, 12267), (46, 12354), (58, 12423), (61, 12438), (72, 12495), (104, 12627), (135, 12873),

Gene: SirJeffery\_15 Start: 14169, Stop: 14834, Start Num: 10

Candidate Starts for SirJeffery\_15:

(Start: 10 @14169 has 419 MA's), (15, 14223), (17, 14259), (25, 14328), (105, 14760), (112, 14805),

Gene: Skippy\_14 Start: 12414, Stop: 13238, Start Num: 10

Candidate Starts for Skippy\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12945), (135, 13191),

Gene: Slatt\_14 Start: 12422, Stop: 13270, Start Num: 10

Candidate Starts for Slatt\_14:

(1, 12119), (2, 12188), (4, 12257), (Start: 10 @12422 has 419 MA's), (25, 12581), (28, 12611), (46, 12698), (58, 12767), (61, 12782), (72, 12839), (104, 12977), (135, 13223),

Gene: SlippinJimmy\_16 Start: 14729, Stop: 15334, Start Num: 10

Candidate Starts for SlippinJimmy\_16:

(Start: 10 @14729 has 419 MA's), (11, 14750), (19, 14846), (35, 14966), (56, 15128), (64, 15167), (68, 15185),

Gene: Soile\_14 Start: 12123, Stop: 12965, Start Num: 10

Candidate Starts for Soile\_14:

(1, 11820), (2, 11889), (4, 11958), (Start: 10 @12123 has 419 MA's), (25, 12282), (28, 12312), (46, 12399), (58, 12468), (61, 12483), (72, 12540), (104, 12672), (135, 12918),

Gene: Solosis\_13 Start: 12124, Stop: 12972, Start Num: 10

Candidate Starts for Solosis\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12679), (135, 12925),

Gene: Sophia\_13 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for Sophia\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: Soto\_14 Start: 12414, Stop: 13250, Start Num: 10

Candidate Starts for Soto\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12957), (135, 13203),

Gene: Sour\_16 Start: 14097, Stop: 14714, Start Num: 10

Candidate Starts for Sour\_16:

(4, 13965), (8, 14076), (Start: 10 @14097 has 419 MA's), (15, 14151), (37, 14310), (78, 14553),

Gene: Spartan300\_14 Start: 12408, Stop: 13250, Start Num: 10

Candidate Starts for Spartan300\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12957), (135, 13203),

Gene: Squid\_14 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for Squid\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: Squiggle\_14 Start: 12118, Stop: 12960, Start Num: 10

Candidate Starts for Squiggle\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12118 has 419 MA's), (25, 12277), (28, 12307), (46, 12394), (58, 12463), (61, 12478), (72, 12535), (104, 12667), (135, 12913),

Gene: Stinger\_12 Start: 12611, Stop: 13471, Start Num: 10

Candidate Starts for Stinger\_12:

(Start: 10 @12611 has 419 MA's), (16, 12692), (25, 12770), (26, 12776), (30, 12818), (36, 12827), (52, 12926), (58, 12965), (61, 12980), (67, 13001), (82, 13109), (84, 13112), (92, 13124), (96, 13136), (97, 13139), (109, 13235), (131, 13355), (132, 13397), (135, 13439), (136, 13442),

Gene: StinkyVeggy\_16 Start: 14308, Stop: 14973, Start Num: 10

Candidate Starts for StinkyVeggy\_16:

(Start: 10 @14308 has 419 MA's), (17, 14398), (25, 14467), (105, 14899),

Gene: Struggle\_13 Start: 11964, Stop: 12806, Start Num: 10

Candidate Starts for Struggle\_13:

(1, 11667), (2, 11736), (4, 11805), (Start: 10 @11964 has 419 MA's), (25, 12123), (28, 12153), (46, 12240), (58, 12309), (61, 12324), (72, 12381), (104, 12513), (135, 12759),

Gene: Suffolk\_14 Start: 12416, Stop: 13252, Start Num: 10

Candidate Starts for Suffolk\_14:

(1, 12113), (2, 12182), (4, 12251), (Start: 10 @12416 has 419 MA's), (25, 12575), (28, 12605), (46, 12692), (58, 12761), (61, 12776), (72, 12833), (104, 12959), (135, 13205),

Gene: Suigeneris\_15 Start: 14169, Stop: 14834, Start Num: 10

Candidate Starts for Suigeneris\_15:

(Start: 10 @14169 has 419 MA's), (15, 14223), (17, 14259), (25, 14328), (105, 14760), (112, 14805),

Gene: Surely\_14 Start: 12420, Stop: 13262, Start Num: 10

Candidate Starts for Surely\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12420 has 419 MA's), (25, 12579), (28, 12609), (46, 12696), (58, 12765), (61, 12780), (72, 12837), (104, 12969), (135, 13215),

Gene: SwainyDoc\_16 Start: 13962, Stop: 14567, Start Num: 10

Candidate Starts for SwainyDoc\_16:

(Start: 10 @13962 has 419 MA's), (11, 13983), (19, 14079), (21, 14088), (35, 14199), (56, 14361), (64, 14400), (68, 14418),

Gene: Swiphy\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Swiphy\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Swish\_14 Start: 12412, Stop: 13248, Start Num: 10

Candidate Starts for Swish\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12955), (135, 13201),

Gene: SynergyX\_16 Start: 13965, Stop: 14570, Start Num: 10

Candidate Starts for SynergyX\_16:

(Start: 10 @13965 has 419 MA's), (11, 13986), (19, 14082), (35, 14202), (56, 14364), (64, 14403), (68, 14421),

Gene: TA17A\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for TA17A\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: TPA2\_23 Start: 15116, Stop: 15712, Start Num: 10

Candidate Starts for TPA2\_23:

(Start: 10 @15116 has 419 MA's), (15, 15170), (25, 15275), (36, 15335), (60, 15494), (69, 15530),

Gene: TallGrassMM\_14 Start: 12124, Stop: 12978, Start Num: 10

Candidate Starts for TallGrassMM\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12685), (135, 12931),

Gene: Telesworld\_13 Start: 12124, Stop: 12960, Start Num: 10

Candidate Starts for Telesworld\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12667), (135, 12913),

Gene: Thonko\_15 Start: 12057, Stop: 12863, Start Num: 10

Candidate Starts for Thonko\_15:

(6, 11952), (7, 11973), (Start: 10 @12057 has 419 MA's), (25, 12216), (36, 12273), (62, 12435), (75, 12495), (93, 12552), (124, 12657), (126, 12681),

Gene: Thora\_14 Start: 12414, Stop: 13262, Start Num: 10

Candidate Starts for Thora\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12969), (135, 13215),

Gene: ThreeOh3D2\_14 Start: 12415, Stop: 13263, Start Num: 10

Candidate Starts for ThreeOh3D2\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12970), (135, 13216),

Gene: Thunderbird\_13 Start: 12120, Stop: 12962, Start Num: 10

Candidate Starts for Thunderbird\_13:

(1, 11817), (2, 11886), (4, 11955), (Start: 10 @12120 has 419 MA's), (25, 12279), (28, 12309), (46, 12396), (58, 12465), (61, 12480), (72, 12537), (104, 12669), (135, 12915),

Gene: Timmi\_13 Start: 12124, Stop: 12972, Start Num: 10

Candidate Starts for Timmi\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12679), (135, 12925),

Gene: Tinciduntolum\_18 Start: 15469, Stop: 16218, Start Num: 10

Candidate Starts for Tinciduntolum\_18:

(Start: 10 @15469 has 419 MA's), (23, 15622), (25, 15634), (28, 15664), (35, 15700), (42, 15733), (45, 15766), (51, 15820), (54, 15847), (61, 15895), (65, 15913), (76, 15979), (78, 16000), (86, 16045), (88, 16057), (95, 16078),

Gene: TinyTerror\_16 Start: 13964, Stop: 14569, Start Num: 10

Candidate Starts for TinyTerror\_16:

(Start: 10 @13964 has 419 MA's), (11, 13985), (19, 14081), (35, 14201), (56, 14363), (64, 14402), (68, 14420),

Gene: TomBombadil\_14 Start: 12414, Stop: 13256, Start Num: 10

Candidate Starts for TomBombadil\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12963), (135, 13209),

Gene: Tomlarah\_14 Start: 12411, Stop: 13247, Start Num: 10

Candidate Starts for Tomlarah\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12954), (135, 13200),

Gene: Toni\_13 Start: 12122, Stop: 12958, Start Num: 10

Candidate Starts for Toni\_13:

(1, 11825), (2, 11894), (4, 11963), (Start: 10 @12122 has 419 MA's), (25, 12281), (28, 12311), (46, 12398), (58, 12467), (61, 12482), (72, 12539), (104, 12665), (135, 12911),

Gene: TooFast2Furius\_15 Start: 12652, Stop: 13494, Start Num: 10

Candidate Starts for TooFast2Furius\_15:

(1, 12349), (2, 12418), (4, 12487), (Start: 10 @12652 has 419 MA's), (25, 12811), (28, 12841), (46, 12928), (58, 12997), (61, 13012), (72, 13069), (104, 13201), (135, 13447),

Gene: Tooj\_14 Start: 12418, Stop: 13260, Start Num: 10

Candidate Starts for Tooj\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12418 has 419 MA's), (25, 12577), (28, 12607), (46, 12694), (58, 12763), (61, 12778), (72, 12835), (104, 12967), (135, 13213),

Gene: Tres\_17 Start: 15350, Stop: 16099, Start Num: 10

Candidate Starts for Tres\_17:

(Start: 10 @15350 has 419 MA's), (23, 15503), (25, 15515), (28, 15545), (35, 15581), (42, 15614), (45, 15647), (51, 15701), (54, 15728), (61, 15776), (65, 15794), (76, 15860), (78, 15881), (86, 15926), (88, 15938), (95, 15959),

Gene: Triad\_14 Start: 11967, Stop: 12797, Start Num: 10

Candidate Starts for Triad\_14:

(1, 11664), (2, 11733), (4, 11802), (Start: 10 @11967 has 419 MA's), (25, 12126), (28, 12156), (46, 12243), (58, 12312), (61, 12327), (72, 12384), (104, 12504), (135, 12750),

Gene: True\_13 Start: 12119, Stop: 12961, Start Num: 10

Candidate Starts for True\_13:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12119 has 419 MA's), (25, 12278), (28, 12308), (46, 12395), (58, 12464), (61, 12479), (72, 12536), (104, 12668), (135, 12914),

Gene: Trypo\_14 Start: 12408, Stop: 13250, Start Num: 10

Candidate Starts for Trypo\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12957), (135, 13203),

Gene: Tydolla\_16 Start: 14702, Stop: 15307, Start Num: 10

Candidate Starts for Tydolla\_16:

(Start: 10 @14702 has 419 MA's), (11, 14723), (19, 14819), (35, 14939), (56, 15101), (64, 15140), (68, 15158),

Gene: TyrionL\_13 Start: 11970, Stop: 12812, Start Num: 10

Candidate Starts for TyrionL\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12519), (135, 12765),

Gene: UAch1\_14 Start: 12417, Stop: 13271, Start Num: 10

Candidate Starts for UAch1\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12417 has 419 MA's), (25, 12576), (28, 12606), (46, 12693), (58, 12762), (61, 12777), (72, 12834), (104, 12978), (135, 13224),

Gene: UncleHowie\_14 Start: 12124, Stop: 12960, Start Num: 10

Candidate Starts for UncleHowie\_14:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12667), (135, 12913),

Gene: Usavi\_14 Start: 12414, Stop: 13262, Start Num: 10

Candidate Starts for Usavi\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12969), (135, 13215),

Gene: Vaishali24\_13 Start: 12089, Stop: 12913, Start Num: 10

Candidate Starts for Vaishali24\_13:

(1, 11786), (2, 11855), (4, 11924), (Start: 10 @12089 has 419 MA's), (25, 12248), (28, 12278), (46, 12365), (58, 12434), (61, 12449), (72, 12506), (104, 12620), (135, 12866),

Gene: Valjean\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Valjean\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Vaticameos\_14 Start: 12115, Stop: 12951, Start Num: 10

Candidate Starts for Vaticameos\_14:

(1, 11818), (2, 11887), (4, 11956), (Start: 10 @12115 has 419 MA's), (25, 12274), (28, 12304), (46, 12391), (58, 12460), (61, 12475), (72, 12532), (104, 12658), (135, 12904),

Gene: Veritas\_13 Start: 11958, Stop: 12800, Start Num: 10

Candidate Starts for Veritas\_13:

(1, 11661), (2, 11730), (4, 11799), (Start: 10 @11958 has 419 MA's), (25, 12117), (28, 12147), (46, 12234), (58, 12303), (61, 12318), (72, 12375), (104, 12507), (135, 12753),

Gene: Vic9\_00017 Start: 15790, Stop: 16539, Start Num: 10

Candidate Starts for Vic9\_00017:

(Start: 10 @15790 has 419 MA's), (23, 15943), (25, 15955), (28, 15985), (35, 16021), (42, 16054), (45, 16087), (51, 16141), (54, 16168), (61, 16216), (65, 16234), (76, 16300), (78, 16321), (86, 16366), (88, 16378), (95, 16399),

Gene: Vincenzo\_15 Start: 14918, Stop: 15751, Start Num: 10

Candidate Starts for Vincenzo\_15:

(Start: 10 @14918 has 419 MA's), (12, 14942), (15, 14972), (16, 14999), (19, 15035), (25, 15077), (44, 15176), (46, 15194), (52, 15233), (58, 15272), (61, 15287), (71, 15344), (96, 15443), (131, 15632), (132, 15674), (135, 15716),

Gene: VioletZ\_14 Start: 14154, Stop: 15005, Start Num: 10

Candidate Starts for VioletZ\_14:

(Start: 10 @14154 has 419 MA's), (15, 14208), (25, 14313), (30, 14361), (36, 14370), (52, 14469), (58, 14508), (61, 14523), (84, 14655), (89, 14658), (96, 14679), (97, 14682), (123, 14796), (131, 14889), (135, 14973), (136, 14976),

Gene: Virapocalypse\_14 Start: 12409, Stop: 13245, Start Num: 10

Candidate Starts for Virapocalypse\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12409 has 419 MA's), (25, 12568), (28, 12598), (46, 12685), (58, 12754), (61, 12769), (72, 12826), (104, 12952), (135, 13198),

Gene: Virgeve\_13 Start: 12124, Stop: 12966, Start Num: 10

Candidate Starts for Virgeve\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12673), (135, 12919),

Gene: Vista\_14 Start: 12414, Stop: 13256, Start Num: 10

Candidate Starts for Vista\_14:

(1, 12117), (2, 12186), (4, 12255), (Start: 10 @12414 has 419 MA's), (25, 12573), (28, 12603), (46, 12690), (58, 12759), (61, 12774), (72, 12831), (104, 12963), (135, 13209),

Gene: Vivaldi\_14 Start: 12415, Stop: 13287, Start Num: 10

Candidate Starts for Vivaldi\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12994), (135, 13240),

Gene: Vortex\_14 Start: 12125, Stop: 12967, Start Num: 10

Candidate Starts for Vortex\_14:

(1, 11822), (2, 11891), (4, 11960), (Start: 10 @12125 has 419 MA's), (25, 12284), (28, 12314), (46, 12401), (58, 12470), (61, 12485), (72, 12542), (104, 12674), (135, 12920),

Gene: Waleliano\_14 Start: 14151, Stop: 14975, Start Num: 10

Candidate Starts for Waleliano\_14:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (91, 14661), (96, 14676), (97, 14679), (131, 14859), (135, 14943), (136, 14946),

Gene: Wallhey\_13 Start: 11970, Stop: 12818, Start Num: 10

Candidate Starts for Wallhey\_13:

(1, 11673), (2, 11742), (4, 11811), (Start: 10 @11970 has 419 MA's), (25, 12129), (28, 12159), (46, 12246), (58, 12315), (61, 12330), (72, 12387), (104, 12525), (135, 12771),

Gene: Waterdiva\_14 Start: 12412, Stop: 13254, Start Num: 10

Candidate Starts for Waterdiva\_14:

(1, 12115), (2, 12184), (4, 12253), (Start: 10 @12412 has 419 MA's), (25, 12571), (28, 12601), (46, 12688), (58, 12757), (61, 12772), (72, 12829), (104, 12961), (135, 13207),

Gene: Weher20\_14 Start: 12408, Stop: 13244, Start Num: 10

Candidate Starts for Weher20\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12951), (135, 13197),

Gene: West99\_17 Start: 15470, Stop: 16219, Start Num: 10

Candidate Starts for West99\_17:

(Start: 10 @15470 has 419 MA's), (23, 15623), (25, 15635), (28, 15665), (35, 15701), (42, 15734), (45, 15767), (51, 15821), (54, 15848), (61, 15896), (65, 15914), (76, 15980), (78, 16001), (86, 16046), (88, 16058), (95, 16079),

Gene: Windsor\_13 Start: 12078, Stop: 12920, Start Num: 10

Candidate Starts for Windsor\_13:

(1, 11775), (2, 11844), (4, 11913), (Start: 10 @12078 has 419 MA's), (25, 12237), (28, 12267), (46, 12354), (58, 12423), (61, 12438), (72, 12495), (104, 12627), (135, 12873),

Gene: Xavier\_13 Start: 12124, Stop: 12972, Start Num: 10

Candidate Starts for Xavier\_13:

(1, 11821), (2, 11890), (4, 11959), (Start: 10 @12124 has 419 MA's), (25, 12283), (28, 12313), (46, 12400), (58, 12469), (61, 12484), (72, 12541), (104, 12679), (135, 12925),

Gene: Xincheng\_14 Start: 13975, Stop: 14796, Start Num: 10

Candidate Starts for Xincheng\_14:

(Start: 10 @13975 has 419 MA's), (15, 14029), (25, 14134), (30, 14182), (52, 14290), (58, 14329), (61, 14344), (67, 14365), (70, 14389), (91, 14485), (96, 14500), (97, 14503), (131, 14680), (135, 14764), (136, 14767),

Gene: Yahalom\_16 Start: 13976, Stop: 14581, Start Num: 10

Candidate Starts for Yahalom\_16:

(Start: 10 @13976 has 419 MA's), (11, 13997), (19, 14093), (56, 14375), (68, 14432),

Gene: Yinz\_16 Start: 14003, Stop: 14608, Start Num: 10

Candidate Starts for Yinz\_16:

(Start: 10 @14003 has 419 MA's), (11, 14024), (19, 14120), (35, 14240), (56, 14402), (64, 14441), (68, 14459),

Gene: Yoshand\_14 Start: 12415, Stop: 13257, Start Num: 10

Candidate Starts for Yoshand\_14:

(1, 12112), (2, 12181), (4, 12250), (Start: 10 @12415 has 419 MA's), (25, 12574), (28, 12604), (46, 12691), (58, 12760), (61, 12775), (72, 12832), (104, 12964), (135, 13210),

Gene: YouGoGlencoco\_14 Start: 12408, Stop: 13250, Start Num: 10

Candidate Starts for YouGoGlencoco\_14:

(1, 12111), (2, 12180), (4, 12249), (Start: 10 @12408 has 419 MA's), (25, 12567), (28, 12597), (46, 12684), (58, 12753), (61, 12768), (72, 12825), (104, 12957), (135, 13203),

Gene: Zaider\_15 Start: 12641, Stop: 13483, Start Num: 10

Candidate Starts for Zaider\_15:

(1, 12344), (2, 12413), (4, 12482), (Start: 10 @12641 has 419 MA's), (25, 12800), (28, 12830), (46, 12917), (58, 12986), (61, 13001), (72, 13058), (104, 13190), (135, 13436),

Gene: Zelda\_14 Start: 12411, Stop: 13253, Start Num: 10

Candidate Starts for Zelda\_14:

(1, 12114), (2, 12183), (4, 12252), (Start: 10 @12411 has 419 MA's), (25, 12570), (28, 12600), (46, 12687), (58, 12756), (61, 12771), (72, 12828), (104, 12960), (135, 13206),

Gene: Zemanar\_15 Start: 14151, Stop: 14975, Start Num: 10

Candidate Starts for Zemanar\_15:

(Start: 10 @14151 has 419 MA's), (15, 14205), (25, 14310), (36, 14367), (52, 14466), (58, 14505), (61, 14520), (91, 14661), (96, 14676), (97, 14679), (131, 14859), (135, 14943), (136, 14946),

Gene: Zenteno07\_19 Start: 13531, Stop: 14463, Start Num: 10

Candidate Starts for Zenteno07\_19:

(Start: 10 @13531 has 419 MA's), (14, 13576), (15, 13588), (58, 13894), (67, 13930), (77, 14008), (81, 14026), (129, 14326), (135, 14437),

Gene: Zonia\_14 Start: 12425, Stop: 13267, Start Num: 10

Candidate Starts for Zonia\_14:

(1, 12128), (2, 12197), (4, 12266), (Start: 10 @12425 has 419 MA's), (25, 12584), (28, 12614), (46, 12701), (58, 12770), (61, 12785), (72, 12842), (104, 12974), (135, 13220),