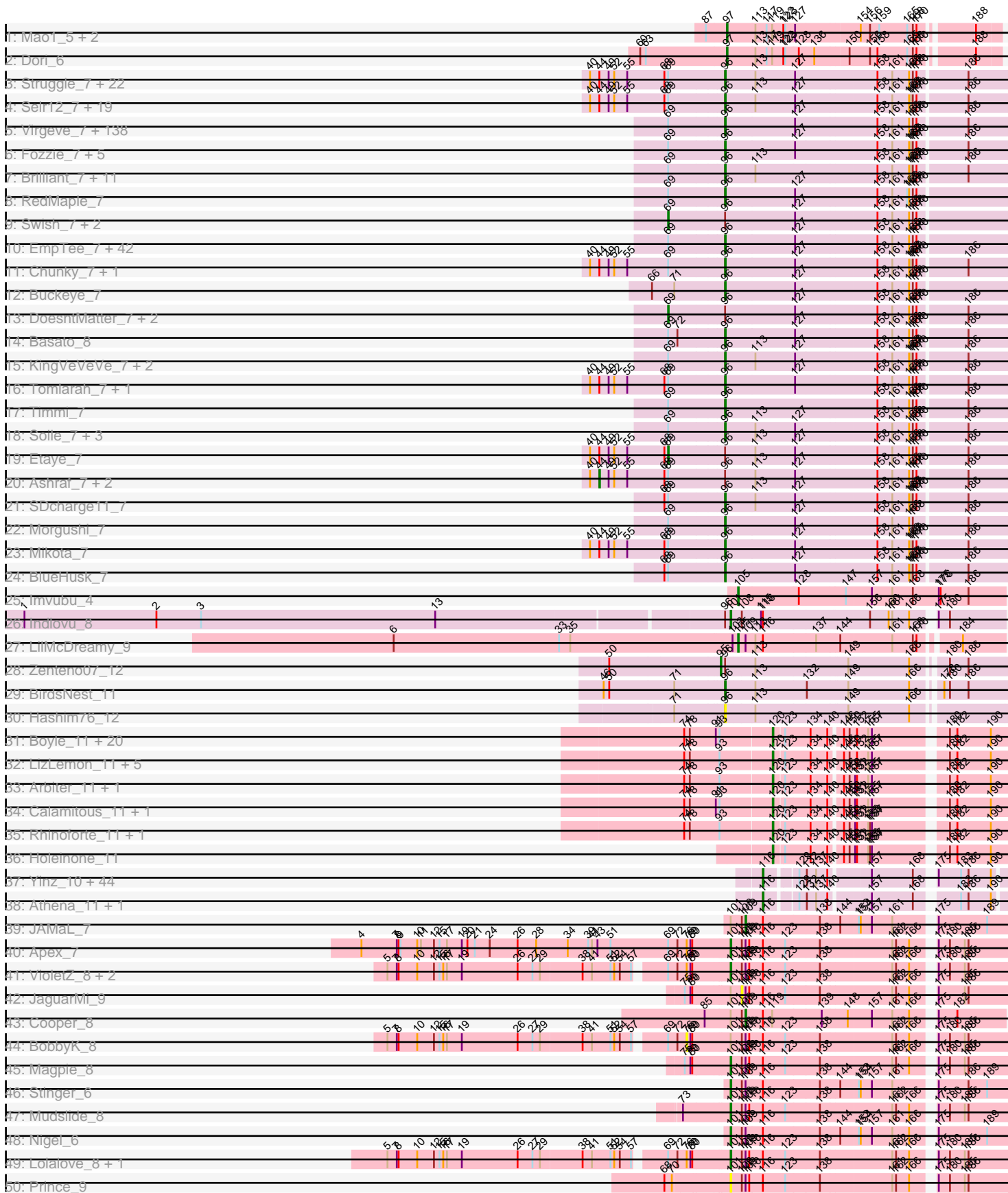
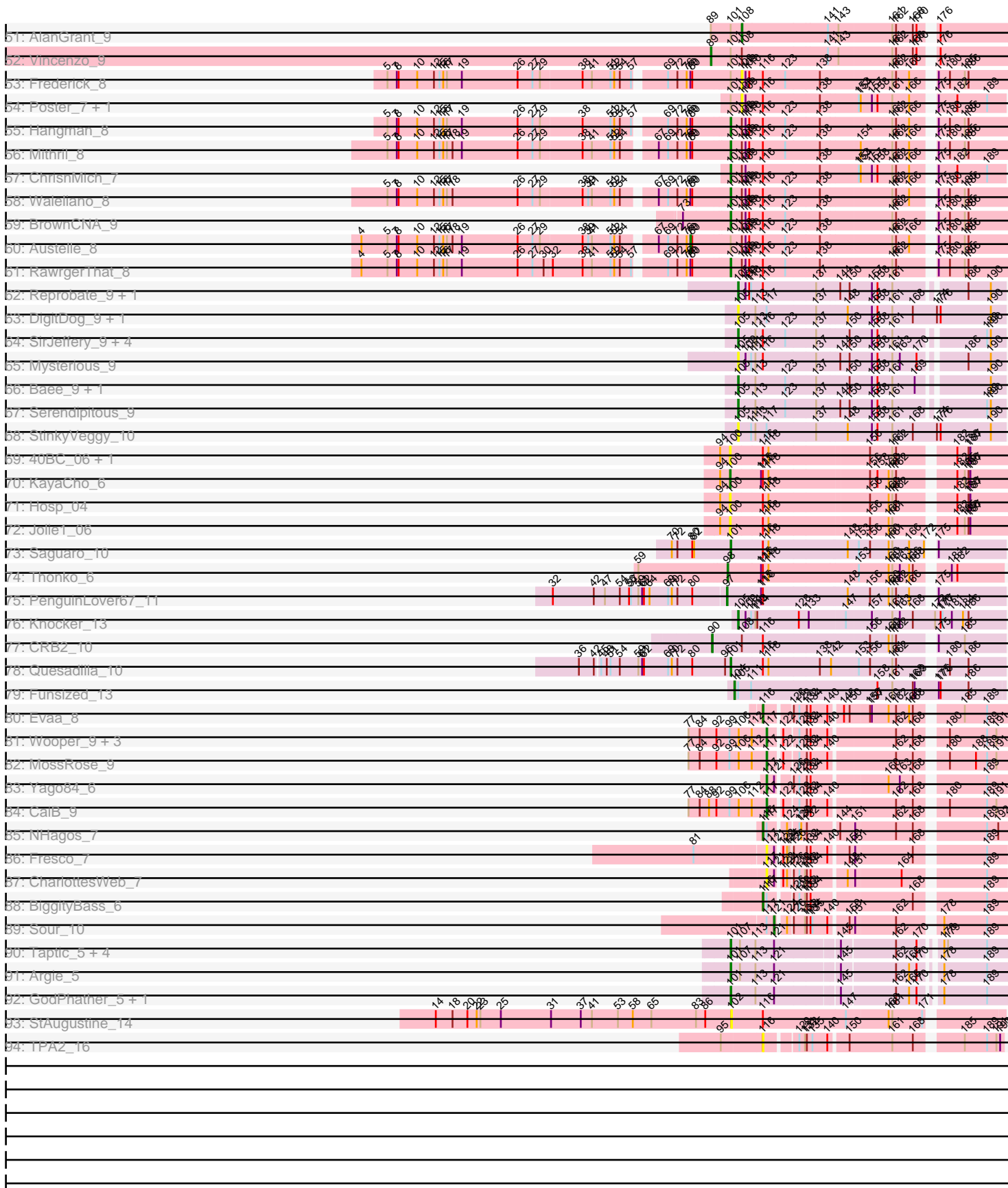


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 157487 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157487 has 439 members, 53 are drafts.

Phages represented in each track:

- Track 1 : Mao1\_5, Mask\_6, Sejanus\_6
- Track 2 : Dori\_6
- Track 3 : Struggle\_7, Veritas\_7, MichaelPhcott\_7, PhrankReynolds\_7, Trypo\_7, Wallhey\_7, Pinkman\_7, Mag7\_7, Labeouficaum\_7, Phleuron\_7, Freya\_7, Oline\_7, Coletti\_7, Derpp\_7, PhenghisKhan\_7, Doddsville\_7, DuchessDung\_7, BatteryCK\_7, Chute\_7, CharlieGBrown\_7, TyrionL\_7, Kailash\_7, Phergie\_7
- Track 4 : Selr12\_7, MelsMeow\_7, Plmatters\_7, Windsor\_7, Lumine\_7, Roliet\_7, Crownjwl\_8, Phipps\_7, Soto\_7, Dione\_7, Roscoe\_8, Olak\_7, Scrick\_7, Haleema\_7, Phunky\_7, Dingo\_7, MiniBoss\_7, Kwksand96\_7, Chaelin\_7, LuckyMarjie\_7
- Track 5 : Virgeve\_7, Morty\_7, HenryJackson\_7, Orion\_7, Weher20\_7, Childish\_7, Adriana\_7, Skippy\_7, Yoshand\_7, LemonSlice\_7, Kloppinator\_7, Legolas\_7, Puhltonio\_7, ThreeOh3D2\_7, ProfessorX\_7, DonSanchon\_7, Riggan\_7, PhrodoBaggins\_7, Pherdinand\_7, ShiVal\_7, Orwigg\_8, Serendipity\_7, Slatt\_7, Craff\_7, Vaishali24\_7, Surely\_7, True\_7, Oosterbaan\_7, Haimas\_7, Megatron\_7, Cobra\_7, Burr\_7, Iridoclysis\_7, Mana\_7, Gophee\_7, DirtJuice\_7, Usavi\_7, Valjean\_7, Thora\_7, TomBombadil\_7, Zaider\_8, Inchworm\_7, Placalicious\_7, Boehler\_7, Hamish\_7, Xavier\_7, Lulwa\_7, Spartan300\_7, TallGrassMM\_7, Schadenfreude\_7, Pipsqueak\_7, Hocus\_7, Colbert\_7, UncleHowie\_7, Squiggle\_7, Simielle\_7, BlackStallion\_7, Vista\_7, Solosis\_7, Potter\_7, Sigman\_7, LeeLot\_7, Samaymay\_7, Sophia\_7, Nyala\_7, Altwerkus\_7, Emiris\_7, Zelda\_7, Hartsy\_7, Chah\_7, Andre\_8, ABU\_7, Fang\_7, Kahve\_7, MRabcd\_7, YouGoGlencoco\_7, IsaacEli\_7, AltPhacts\_7, Omniscient\_7, Mutante\_7, QueenBeane\_7, KLucky39\_7, Bishoperium\_7, Apizium\_7, SassyCat97\_7, Charles1\_7, Piglet\_007, Mesh1\_7, Antonia\_7, Banjo\_7, Dice\_8, LostAndPhound\_7, FriarPreacher\_7, Keitherie\_7, Kikipoo\_7, HighStump\_7, Lego3393\_7, Vortex\_7, PG1\_7, JacAttac\_7, LasagnaCat\_7, Mecca\_7, PinheadLarry\_7, Olive\_7, Mosaic\_7, Megamind20\_8, Chorkpop\_7, Hertubise\_7, Gareth\_7, Bluephacebaby\_7, Serpentine\_007, Phareon\_7, CamL\_7, Telesworld\_7, Cannibal\_7, Jillium\_7, Vaticameos\_7, Sheila\_7, Podrick\_7, Fringe\_7, Dati\_7, Phamished\_7, UAch1\_7, Quisquilliae\_8, Murdoc\_7, Manad\_7, Waterdiva\_7, Hetaeria\_7, Lasso\_7, Schueller\_7, Cher\_7, Cornobble\_7, Squid\_7, Anderson\_7, Vivaldi\_7, Numberten\_7, Mcshane\_7, Magic8\_7, Horchata\_7
- Track 6 : Fozzie\_7, Swiphy\_7, PhatLouie\_7, GeneCoco\_7, OSmaximus\_7, Pacifista\_8
- Track 7 : Brilliant\_7, DaddyDaniels\_7, LeiMonet\_7, Longacauda\_7, MrPhizzler\_7, JakeO\_7, Durga\_7, Jiminy\_7, JDog\_7, Zonia\_7, Duggie\_7, Rimu\_7
- Track 8 : RedMaple\_7
- Track 9 : Swish\_7, Katniss\_7, Badfish\_7

- Track 10 : EmpTee\_7, Robyn\_7, Pops\_7, PhatCats2014\_7, Matalotodo\_7, Newman\_7, Grand2040\_7, Gwilliam\_8, Aelin\_7, Eremos\_7, KingTut\_7, Lulumae\_7, MitKao\_7, Gyarad\_007, Nacho\_007, Eugenia\_8, Prickles\_7, Roy17\_7, Held\_7, Lopsy\_7, HSavage\_7, Cosmolli16\_7, Tooj\_7, AbsoluteMadLad\_7, OliverWalter\_7, Nicole21\_7, KlimbOn\_7, Daffy\_7, Suffolk\_7, Carthage\_7, Toni\_7, CampRoach\_7, Scoot17C\_7, Virapocalypse\_7, FugateOSU\_7, JangoPhett\_7, Frankicide\_7, Giraffe\_7, Mulan\_7, CheetO\_7, Maru\_7, Daka\_7, Inverness\_7
- Track 11 : Chunky\_7, Melc17\_7
- Track 12 : Buckeye\_7
- Track 13 : DoesntMatter\_7, FluffyNinja\_7, Beaglebox\_7
- Track 14 : Basato\_8
- Track 15 : KingVeVeVe\_7, Ricotta\_7, Kwadwo\_7
- Track 16 : Tomlarah\_7, Kimbrough\_7
- Track 17 : Timmi\_7
- Track 18 : Soile\_7, DelRivs\_7, Harvey\_7, Orfeu\_7
- Track 19 : Etaye\_7
- Track 20 : Ashraf\_7, Maskar\_7, ImtiyazSitla\_7
- Track 21 : SDcharge11\_7
- Track 22 : Morgushi\_7
- Track 23 : Mikota\_7
- Track 24 : BlueHusk\_7
- Track 25 : Imvubu\_4
- Track 26 : Indlovu\_8
- Track 27 : LilMcDreamy\_9
- Track 28 : Zenteno07\_12
- Track 29 : BirdsNest\_11
- Track 30 : Hashim76\_12
- Track 31 : Boyle\_11, Kheth\_11, Ares\_11, Eaglehorse\_11, ItsyBitsy1\_11, Hedgerow\_11, Lephleur\_11, FrenchFry\_11, Sabella\_11, MasterPo\_11, Phantasmagoria\_11, Faze9\_11, Tinciduntolum\_12, Kaleb\_11, Brownie5\_11, Rosebush\_11, Glass\_11, West99\_11, Bananafish\_11, Opia\_11, Coffee\_11
- Track 32 : LizLemon\_11, Blocker23\_11, Lars\_11, Tres\_11, Godines\_11, Qyrzula\_11
- Track 33 : Arbiter\_11, TA17A\_11
- Track 34 : Calamitous\_11, Laurie\_11
- Track 35 : Rhinoforte\_11, Allegro\_11
- Track 36 : Holeinone\_11
- Track 37 : Yinz\_10, Kronus\_9, GlenHope\_11, RagingRooster\_10, Audrey\_10, Phaedrus\_9, Pipefish\_10, Bernardo\_10, Compostia\_10, Chandler\_10, HarveySr\_10, Briakila\_10, Corofin\_10, Heathcliff\_10, Casbah\_9, SynergyX\_10, Baloo\_10, Mortcellus\_9, Ben11\_9, Jackstina\_9, Daisy\_10, RomaT\_10, Nozo\_10, ChaChing\_10, Gervas\_10, Marley1013\_10, Philly\_9, Rita1961\_10, Yahalom\_10, Morty007\_10, Neos5\_10, Kamiyu\_10, Akoma\_10, OrangeOswald\_10, Phlyer\_10, Tydolla\_10, SlippinJimmy\_10, Abinghost\_10, Halfpint\_9, Gadjet\_11, Devonte\_10, Deenasa\_10, Obutu\_10, MmasiCarm\_10, Phayeta\_10
- Track 38 : Athena\_11, LestyG\_10
- Track 39 : JAMaL\_7
- Track 40 : Apex\_7
- Track 41 : VioletZ\_8, Zemanar\_9, Heath\_8
- Track 42 : JaguarMi\_9
- Track 43 : Cooper\_8
- Track 44 : BobbyK\_8
- Track 45 : Magpie\_8

- Track 46 : Stinger\_6
- Track 47 : Mudslide\_8
- Track 48 : Nigel\_6
- Track 49 : Lolalove\_8, Hydro\_8
- Track 50 : Prince\_9
- Track 51 : AlanGrant\_9
- Track 52 : Vincenzo\_9
- Track 53 : Frederick\_8
- Track 54 : Poster\_7, Nanao\_7
- Track 55 : Hangman\_8
- Track 56 : Mithril\_8
- Track 57 : ChrisnMich\_7
- Track 58 : Waleliano\_8
- Track 59 : BrownCNA\_9
- Track 60 : Austelle\_8
- Track 61 : RawrgerThat\_8
- Track 62 : Reprobate\_9, Phelemich\_9
- Track 63 : DigitDog\_9, Nangang\_9
- Track 64 : SirJeffery\_9, Suigeneris\_9, Acadian\_9, EastView9101\_9, Donny\_9
- Track 65 : Mysterious\_9
- Track 66 : Bae\_9, Rich\_9
- Track 67 : Serendipitous\_9
- Track 68 : StinkyVeggy\_10
- Track 69 : 40BC\_06, 39HC\_06
- Track 70 : KayaCho\_6
- Track 71 : Hosp\_04
- Track 72 : Jolie1\_06
- Track 73 : Saguaro\_10
- Track 74 : Thonko\_6
- Track 75 : PenguinLover67\_11
- Track 76 : Knocker\_13
- Track 77 : CRB2\_10
- Track 78 : Quesadilla\_10
- Track 79 : Funsized\_13
- Track 80 : Evaa\_8
- Track 81 : Wooper\_9, AnarQue\_9, MakoManhole\_9, CloverMinnie\_9
- Track 82 : MossRose\_9
- Track 83 : Yago84\_6
- Track 84 : CaiB\_9
- Track 85 : NHagos\_7
- Track 86 : Fresco\_7
- Track 87 : CharlottesWeb\_7
- Track 88 : BiggityBass\_6
- Track 89 : Sour\_10
- Track 90 : Taptic\_5, PR\_05, D12\_05, Megabear\_5, Cepens\_5
- Track 91 : Argie\_5
- Track 92 : GodPhather\_5, Jeon\_5
- Track 93 : StAugustine\_14
- Track 94 : TPA2\_16

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

The start number called the most often in the published annotations is 96, it was called in 238 of the 386 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU\_7, AbsoluteMadLad\_7, Adriana\_7, Aelin\_7, AltPhacts\_7, Altwerkus\_7, Anderson\_7, Andre\_8, Antonia\_7, Apizium\_7, Banjo\_7, Basato\_8, BatteryCK\_7, BirdsNest\_11, Bishoperium\_7, BlackStallion\_7, BlueHusk\_7, Bluephacebaby\_7, Boehler\_7, Brilliant\_7, Buckeye\_7, Burr\_7, CamL\_7, CampRoach\_7, Cannibal\_7, Carthage\_7, Chaelin\_7, Chah\_7, Charles1\_7, CharlieGBrown\_7, CheetO\_7, Cher\_7, Childish\_7, Chorkpop\_7, Chunky\_7, Chute\_7, Cobra\_7, Colbert\_7, Coletti\_7, Cornobble\_7, Cosmolli16\_7, Craff\_7, Crownjwl\_8, DaddyDaniels\_7, Daffy\_7, Daka\_7, Dati\_7, DelRivs\_7, Derpp\_7, Dice\_8, Dingo\_7, Dione\_7, DirtJuice\_7, Doddsville\_7, DonSanchon\_7, DuchessDung\_7, Duggie\_7, Durga\_7, Emiris\_7, EmpTee\_7, Eremos\_7, Eugenia\_8, Fang\_7, Fozzie\_7, Frankicide\_7, Freya\_7, FriarPreacher\_7, Fringe\_7, FugateOSU\_7, Gareth\_7, GeneCoco\_7, Giraffe\_7, Gophee\_7, Grand2040\_7, Gwilliam\_8, Gyarad\_007, HSavage\_7, Haimas\_7, Haleema\_7, Hamish\_7, Hartsy\_7, Harvey\_7, Hashim76\_12, Held\_7, HenryJackson\_7, Hertubise\_7, Hetaeria\_7, HighStump\_7, Hocus\_7, Horchata\_7, Inchworm\_7, Inverness\_7, Iridoclysis\_7, IsaacEli\_7, JDog\_7, JacAttac\_7, JakeO\_7, JangoPhett\_7, Jillium\_7, Jiminy\_7, KLucky39\_7, Kahve\_7, Kailash\_7, Keitherie\_7, Kikipoo\_7, Kimbrough\_7, KingTut\_7, KingVeVeVe\_7, KlimbOn\_7, Kloppinator\_7, Kwadwo\_7, Kwksand96\_7, Labeouficaum\_7, LasagnaCat\_7, Lasso\_7, LeeLot\_7, Lego3393\_7, Legolas\_7, LeiMonet\_7, LemonSlice\_7, Longacauda\_7, Lopsy\_7, LostAndPhound\_7, LuckyMarjie\_7, Lulumae\_7, Lulwa\_7, Lumine\_7, MRabcd\_7, Mag7\_7, Magic8\_7, Mana\_7, Manad\_7, Maru\_7, Matalotodo\_7, Mcshane\_7, Mecca\_7, Megamind20\_8, Megatron\_7, Melc17\_7, MelsMeow\_7, Mesh1\_7, MichaelPhcott\_7, Mikota\_7, MiniBoss\_7, MitKao\_7, Morgushi\_7, Morty\_7, Mosaic\_7, MrPhizzler\_7, Mulan\_7, Murdoc\_7, Mutante\_7, Nacho\_007, Newman\_7, Nicole21\_7, Numberten\_7, Nyala\_7, OSmaximus\_7, Olak\_7, Oline\_7, Olive\_7, OliverWalter\_7, Omniscient\_7, Oosterbaan\_7, Orfeu\_7, Orion\_7, Orwigg\_8, PG1\_7, Pacifista\_8, Phamished\_7, Phareon\_7, PhatCats2014\_7, PhatLouie\_7, PhenghisKhan\_7, Pherdinand\_7, Phergie\_7, Phipps\_7, Phleuron\_7, PhrankReynolds\_7, PhrodoBaggins\_7, Phunky\_7, Piglet\_007, PinheadLarry\_7, Pinkman\_7, Pipsqueak\_7, Placalicious\_7, Plmatters\_7, Podrick\_7, Pops\_7, Potter\_7, Prickles\_7, ProfessorX\_7, Puhltonio\_7, QueenBeane\_7, Quisquiliae\_8, RedMaple\_7, Ricotta\_7, Riggan\_7, Rimu\_7, Robyn\_7, Roliet\_7, Roscoe\_8, Roy17\_7, SDcharge11\_7, Samaymay\_7, SassyCat97\_7, Schadenfreude\_7, Schueller\_7, Scoot17C\_7, Scrick\_7, Selr12\_7, Serendipity\_7, Serpentine\_007, Sheila\_7, ShiVal\_7, Sigman\_7, Simielle\_7, Skippy\_7, Slatt\_7, Soile\_7, Solosis\_7, Sophia\_7, Soto\_7, Spartan300\_7, Squid\_7, Squiggle\_7, Struggle\_7, Suffolk\_7, Surely\_7, Swiphy\_7, TallGrassMM\_7, Telesworld\_7, Thora\_7, ThreeOh3D2\_7, Timmi\_7, TomBombadil\_7, Tomlarah\_7, Toni\_7, Tooj\_7, True\_7, Trypo\_7, TyrionL\_7, UAch1\_7, UncleHowie\_7, Usavi\_7, Vaishali24\_7, Valjean\_7, Vaticameos\_7, Veritas\_7, Virapocalypse\_7, Virgeve\_7, Vista\_7, Vivaldi\_7, Vortex\_7, Wallhey\_7, Waterdiva\_7, Weher20\_7, Windsor\_7, Xavier\_7, Yoshand\_7, YouGoGlencoco\_7, Zaider\_8, Zelda\_7, Zonia\_7,

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

- Ashraf\_7, Badfish\_7, Beaglebox\_7, DoesntMatter\_7, Etaye\_7, FluffyNinja\_7, ImtiyazSitla\_7, Indlovu\_8, Katniss\_7, Maskar\_7, Quesadilla\_10, Swish\_7, Zenteno07\_12,

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

- 39HC\_06, 40BC\_06, Abinghost\_10, Acadian\_9, Akoma\_10, AlanGrant\_9, Allegro\_11, AnarQue\_9, Apex\_7, Arbiter\_11, Ares\_11, Argie\_5, Athena\_11, Audrey\_10, Austelle\_8, Bae\_9, Baloo\_10, Bananafish\_11, Ben11\_9, Bernardo\_10, BiggityBass\_6, Blocker23\_11, BobbyK\_8, Boyle\_11, Briakila\_10, BrownCNA\_9, Brownie5\_11, CRB2\_10, CaiB\_9, Calamitous\_11, Casbah\_9, Cepens\_5, ChaChing\_10, Chandler\_10, CharlottesWeb\_7, ChrisnMich\_7, CloverMinnie\_9, Coffee\_11, Compostia\_10, Cooper\_8, Corofin\_10, D12\_05, Daisy\_10, Deenasa\_10, Devonte\_10, DigitDog\_9, Donny\_9, Dori\_6, Eaglehorse\_11, EastView9101\_9, Evaa\_8, Faze9\_11, Frederick\_8, FrenchFry\_11, Fresco\_7, Funsized\_13, Gadget\_11, Gervas\_10, Glass\_11, GlenHope\_11, GodPhather\_5, Godines\_11, Halfpint\_9, Hangman\_8, HarveySr\_10, Heath\_8, Heathcliff\_10, Hedgerow\_11, Holeinone\_11, Hosp\_04, Hydro\_8, Imvubu\_4, ItsyBitsy1\_11, JAMaL\_7, Jackstina\_9, JaguarMi\_9, Jeon\_5, Jolie1\_06, Kaleb\_11, Kamiyu\_10, KayaCho\_6, Kheth\_11, Knocker\_13, Kronus\_9, Lars\_11, Laurie\_11, Lephleur\_11, LestyG\_10, LilMcDreamy\_9, LizLemon\_11, Lolalove\_8, Magpie\_8, MakoManhole\_9, Mao1\_5, Marley1013\_10, Mask\_6, MasterPo\_11, Megabear\_5, Mithril\_8, MmasiCarm\_10, Mortcellus\_9, Morty007\_10, MossRose\_9, Mudslide\_8, Mysterious\_9, NHagos\_7, Nanao\_7, Nangang\_9, Neos5\_10, Nigel\_6, Nozo\_10, Obutu\_10, Opia\_11, OrangeOswald\_10, PR\_05, PenguinLover67\_11, Phaedrus\_9, Phantasmagoria\_11, Phayeta\_10, Phelemich\_9, Philly\_9, Phlyer\_10, Pipefish\_10, Poster\_7, Prince\_9, Qyrzula\_11, RagingRooster\_10, RawrgerThat\_8, Reprobate\_9, Rhinoforte\_11, Rich\_9, Rita1961\_10, RomaT\_10, Rosebush\_11, Sabella\_11, Saguaro\_10, Sejanus\_6, Serendipitous\_9, SirJeffery\_9, SlippinJimmy\_10, Sour\_10, StAugustine\_14, Stinger\_6, StinkyVeggy\_10, Suigeneris\_9, SynergyX\_10, TA17A\_11, TPA2\_16, Taptic\_5, Thonko\_6, Tinciduntolum\_12, Tres\_11, Tydolla\_10, Vincenzo\_9, VioletZ\_8, Waleliano\_8, West99\_11, Wooper\_9, Yago84\_6, Yahalom\_10, Yinz\_10, Zemanar\_9,

### Summary by start number:

#### Start 44:

- Found in 52 of 439 ( 11.8% ) of genes in pham
- Manual Annotations of this start: 3 of 386
- Called 5.8% of time when present
- Phage (with cluster) where this start called: Ashraf\_7 (B1), ImtiyazSitla\_7 (B1), Maskar\_7 (B1),

#### Start 69:

- Found in 286 of 439 ( 65.1% ) of genes in pham
- Manual Annotations of this start: 7 of 386
- Called 2.4% of time when present
- Phage (with cluster) where this start called: Badfish\_7 (B1), Beaglebox\_7 (B1), DoesntMatter\_7 (B1), Etaye\_7 (B1), FluffyNinja\_7 (B1), Katniss\_7 (B1), Swish\_7 (B1),

#### Start 76:

- Found in 13 of 439 ( 3.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 7.7% of time when present
- Phage (with cluster) where this start called: BobbyK\_8 (B4),

#### Start 79:

- Found in 15 of 439 ( 3.4% ) of genes in pham

- Manual Annotations of this start: 1 of 386
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Austelle\_8 (B4),

#### Start 89:

- Found in 2 of 439 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Vincenzo\_9 (B4),

#### Start 90:

- Found in 1 of 439 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CRB2\_10 (B9),

#### Start 95:

- Found in 2 of 439 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Zenteno07\_12 (B13),

#### Start 96:

- Found in 277 of 439 ( 63.1% ) of genes in pham
- Manual Annotations of this start: 238 of 386
- Called 95.3% of time when present
- Phage (with cluster) where this start called: ABU\_7 (B1), AbsoluteMadLad\_7 (B1), Adriana\_7 (B1), Aelin\_7 (B1), AltPhacts\_7 (B1), Altwerkus\_7 (B1), Anderson\_7 (B1), Andre\_8 (B1), Antonia\_7 (B1), Apizium\_7 (B1), Banjo\_7 (B1), Basato\_8 (B1), BatteryCK\_7 (B1), BirdsNest\_11 (B13), Bishoperium\_7 (B1), BlackStallion\_7 (B1), BlueHusk\_7 (B1), Bluephacebaby\_7 (B1), Boehler\_7 (B1), Brilliant\_7 (B1), Buckeye\_7 (B1), Burr\_7 (B1), CamL\_7 (B1), CampRoach\_7 (B1), Cannibal\_7 (B1), Carthage\_7 (B1), Chaelin\_7 (B1), Chah\_7 (B1), Charles1\_7 (B1), CharlieGBrown\_7 (B1), CheetO\_7 (B1), Cher\_7 (B1), Childish\_7 (B1), Chorkpop\_7 (B1), Chunky\_7 (B1), Chute\_7 (B1), Cobra\_7 (B1), Colbert\_7 (B1), Coletti\_7 (B1), Cornobble\_7 (B1), Cosmolli16\_7 (B1), Craff\_7 (B1), Crownjwl\_8 (B1), DaddyDaniels\_7 (B1), Daffy\_7 (B1), Daka\_7 (B1), Dati\_7 (B1), DelRivs\_7 (B1), Derpp\_7 (B1), Dice\_8 (B1), Dingo\_7 (B1), Dione\_7 (B1), DirtJuice\_7 (B1), Doddsville\_7 (B1), DonSanchon\_7 (B1), DuchessDung\_7 (B1), Duggie\_7 (B1), Durga\_7 (B1), Emiris\_7 (B1), EmpTee\_7 (B1), Eremos\_7 (B1), Eugenia\_8 (B1), Fang\_7 (B1), Fozzie\_7 (B1), Frankicide\_7 (B1), Freya\_7 (B1), FriarPreacher\_7 (B1), Fringe\_7 (B1), FugateOSU\_7 (B1), Gareth\_7 (B1), GeneCoco\_7 (B1), Giraffe\_7 (B1), Gophee\_7 (B1), Grand2040\_7 (B1), Gwilliam\_8 (B1), Gyarad\_007 (B1), HSavage\_7 (B1), Haimas\_7 (B1), Haleema\_7 (B1), Hamish\_7 (B1), Hartsy\_7 (B1), Harvey\_7 (B1), Hashim76\_12 (B13), Held\_7 (B1), HenryJackson\_7 (B1), Hertubise\_7 (B1), Hetaeria\_7 (B1), HighStump\_7 (B1), Hocus\_7 (B1), Horchata\_7 (B1), Inchworm\_7 (B1), Inverness\_7 (B1), Iridoclysis\_7 (B1), IsaacEli\_7 (B1), JDog\_7 (B1), JacAttac\_7 (B1), JakeO\_7 (B1), JangoPhett\_7 (B1), Jillium\_7 (B1), Jiminy\_7 (B1), KLucky39\_7 (B1), Kahve\_7 (B1), Kailash\_7 (B1), Keitherie\_7 (B1), Kikipoo\_7 (B1), Kimbrough\_7 (B1), KingTut\_7 (B1), KingVeVeVe\_7 (B1), KlimbOn\_7 (B1), Kloppinator\_7 (B1), Kwadwo\_7 (B1), Kwksand96\_7 (B1), Labeouficaum\_7 (B1), LasagnaCat\_7 (B1), Lasso\_7 (B1), LeeLot\_7 (B1), Lego3393\_7 (B1), Legolas\_7 (B1), LeiMonet\_7 (B1), LemonSlice\_7 (B1), Longacauda\_7 (B1), Lopsy\_7 (B1), LostAndPhound\_7 (B1), LuckyMarjie\_7 (B1),



Lulumae\_7 (B1), Lulwa\_7 (B1), Lumine\_7 (B1), MRabcd\_7 (B1), Mag7\_7 (B1), Magic8\_7 (B1), Mana\_7 (B1), Manad\_7 (B1), Maru\_7 (B1), Matalotodo\_7 (B1), Mcshane\_7 (B1), Mecca\_7 (B1), Megamind20\_8 (B1), Megatron\_7 (B1), Melc17\_7 (B1), MelsMeow\_7 (B1), Mesh1\_7 (B1), MichaelPhcott\_7 (B1), Mikota\_7 (B1), MiniBoss\_7 (B1), MitKao\_7 (B1), Morgushi\_7 (B1), Morty\_7 (B1), Mosaic\_7 (B1), MrPhizzler\_7 (B1), Mulan\_7 (B1), Murdoc\_7 (B1), Mutante\_7 (B1), Nacho\_007 (B1), Newman\_7 (B1), Nicole21\_7 (B1), Numberten\_7 (B1), Nyala\_7 (B1), OSmaximus\_7 (B1), Olak\_7 (B1), Oline\_7 (B1), Olive\_7 (B1), OliverWalter\_7 (B1), Omniscient\_7 (B1), Oosterbaan\_7 (B1), Orfeu\_7 (B1), Orion\_7 (B1), Orwigg\_8 (B1), PG1\_7 (B1), Pacifista\_8 (B1), Phamished\_7 (B1), Phareon\_7 (B1), PhatCats2014\_7 (B1), PhatLouie\_7 (B1), PhenghisKhan\_7 (B1), Pherdinand\_7 (B1), Phergie\_7 (B1), Phipps\_7 (B1), Phleuron\_7 (B1), PhrankReynolds\_7 (B1), PhrodoBaggins\_7 (B1), Phunky\_7 (B1), Piglet\_007 (B1), PinheadLarry\_7 (B1), Pinkman\_7 (B1), Pipsqueak\_7 (B1), Placalicious\_7 (B1), Plmatters\_7 (B1), Podrick\_7 (B1), Pops\_7 (B1), Potter\_7 (B1), Prickles\_7 (B1), ProfessorX\_7 (B1), Puhltonio\_7 (B1), QueenBeane\_7 (B1), Quisquillae\_8 (B1), RedMaple\_7 (B1), Ricotta\_7 (B1), Riggan\_7 (B1), Rimu\_7 (B1), Robyn\_7 (B1), Roliet\_7 (B1), Roscoe\_8 (B1), Roy17\_7 (B1), SDcharge11\_7 (B1), Samaymay\_7 (B1), SassyCat97\_7 (B1), Schadenfreude\_7 (B1), Schueller\_7 (B1), Scoot17C\_7 (B1), Scrick\_7 (B1), Selr12\_7 (B1), Serendipity\_7 (B1), Serpentine\_007 (B1), Sheila\_7 (B1), ShiVal\_7 (B1), Sigman\_7 (B1), Simielle\_7 (B1), Skippy\_7 (B1), Slatt\_7 (B1), Soile\_7 (B1), Solosis\_7 (B1), Sophia\_7 (B1), Soto\_7 (B1), Spartan300\_7 (B1), Squid\_7 (B1), Squiggle\_7 (B1), Struggle\_7 (B1), Suffolk\_7 (B1), Surely\_7 (B1), Swiphy\_7 (B1), TallGrassMM\_7 (B1), Telesworld\_7 (B1), Thora\_7 (B1), ThreeOh3D2\_7 (B1), Timmi\_7 (B1), TomBombadil\_7 (B1), Tomlarah\_7 (B1), Toni\_7 (B1), Tooj\_7 (B1), True\_7 (B1), Trypo\_7 (B1), TyrionL\_7 (B1), UAch1\_7 (B1), UncleHowie\_7 (B1), Usavi\_7 (B1), Vaishali24\_7 (B1), Valjean\_7 (B1), Vaticameos\_7 (B1), Veritas\_7 (B1), Virapocalypse\_7 (B1), Virgeve\_7 (B1), Vista\_7 (B1), Vivaldi\_7 (B1), Vortex\_7 (B1), Wallhey\_7 (B1), Waterdiva\_7 (B1), Weher20\_7 (B1), Windsor\_7 (B1), Xavier\_7 (B1), Yoshand\_7 (B1), YouGoGlencoco\_7 (B1), Zaider\_8 (B1), Zelda\_7 (B1), Zonia\_7 (B1),

#### Start 97:

- Found in 5 of 439 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 4 of 386
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dori\_6 (AD), Mao1\_5 (AD), Mask\_6 (AD), PenguinLover67\_11 (B9), Sejanus\_6 (AD),

#### Start 98:

- Found in 1 of 439 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko\_6 (B8),

#### Start 100:

- Found in 5 of 439 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_06 (B6), 40BC\_06 (B6), Hosp\_04 (B6), Jolie1\_06 (B6), KayaCho\_6 (B6),

#### Start 101:

- Found in 38 of 439 ( 8.7% ) of genes in pham

- Manual Annotations of this start: 27 of 386
- Called 73.7% of time when present
- Phage (with cluster) where this start called: Apex\_7 (B4), Argie\_5 (W), BrownCNA\_9 (B4), Cepens\_5 (W), ChrisnMich\_7 (B4), D12\_05 (W), GodPhather\_5 (W), Hangman\_8 (B4), Heath\_8 (B4), Hydro\_8 (B4), Indlovu\_8 (B11), Jeon\_5 (W), Lolalove\_8 (B4), Magpie\_8 (B4), Megabear\_5 (W), Mithril\_8 (B4), Mudslide\_8 (B4), Nigel\_6 (B4), PR\_05 (W), Prince\_9 (B4), Quesadilla\_10 (B9), RawrgerThat\_8 (B4), Saguaro\_10 (B7), Stinger\_6 (B4), Taptic\_5 (W), VioletZ\_8 (B4), Waleliano\_8 (B4), Zemanar\_9 (B4),

#### Start 102:

- Found in 1 of 439 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAugustine\_14 (singleton),

#### Start 104:

- Found in 1 of 439 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Funsized\_13 (B9),

#### Start 105:

- Found in 18 of 439 ( 4.1% ) of genes in pham
- Manual Annotations of this start: 11 of 386
- Called 94.4% of time when present
- Phage (with cluster) where this start called: Acadian\_9 (B5), Bae\_9 (B5), DigitDog\_9 (B5), Donny\_9 (B5), EastView9101\_9 (B5), Imvubu\_4 (B10), Knocker\_13 (B9), LiiMcDreamy\_9 (B12), Mysterious\_9 (B5), Nangang\_9 (B5), Phelemich\_9 (B5), Reprobate\_9 (B5), Rich\_9 (B5), Serendipitous\_9 (B5), SirJeffery\_9 (B5), StinkyVeggy\_10 (B5), Suigeneris\_9 (B5),

#### Start 108:

- Found in 29 of 439 ( 6.6% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 17.2% of time when present
- Phage (with cluster) where this start called: AlanGrant\_9 (B4), Frederick\_8 (B4), JaguarMi\_9 (B4), Nanao\_7 (B4), Poster\_7 (B4),

#### Start 109:

- Found in 30 of 439 ( 6.8% ) of genes in pham
- Manual Annotations of this start: 2 of 386
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Cooper\_8 (B4), JAMaL\_7 (B4),

#### Start 116:

- Found in 97 of 439 ( 22.1% ) of genes in pham
- Manual Annotations of this start: 47 of 386
- Called 52.6% of time when present
- Phage (with cluster) where this start called: Abinghost\_10 (B3), Akoma\_10 (B3), Athena\_11 (B3), Audrey\_10 (B3), Baloo\_10 (B3), Ben11\_9 (B3), Bernardo\_10 (B3), BiggityBass\_6 (DR), Briakila\_10 (B3), Casbah\_9 (B3), ChaChing\_10 (B3), Chandler\_10 (B3), Compostia\_10 (B3), Corofin\_10 (B3), Daisy\_10 (B3), Deenasa\_10

(B3), Devonte\_10 (B3), Evaa\_8 (DR), Gadget\_11 (B3), Gervas\_10 (B3), GlenHope\_11 (B3), Halfpint\_9 (B3), HarveySr\_10 (B3), Heathcliff\_10 (B3), Jackstina\_9 (B3), Kamiyu\_10 (B3), Kronus\_9 (B3), LestyG\_10 (B3), Marley1013\_10 (B3), MmasiCarm\_10 (B3), Mortcellus\_9 (B3), Morty007\_10 (B3), NHagos\_7 (DR), Neos5\_10 (B3), Nozo\_10 (B3), Obutu\_10 (B3), OrangeOswald\_10 (B3), Phaedrus\_9 (B3), Phayeta\_10 (B3), Philly\_9 (B3), Phlyer\_10 (B3), Pipefish\_10 (B3), RagingRooster\_10 (B3), Rita1961\_10 (B3), RomaT\_10 (B3), SlippinJimmy\_10 (B3), SynergyX\_10 (B3), TPA2\_16 (singleton), Tydolla\_10 (B3), Yahalom\_10 (B3), Yinz\_10 (B3),

Start 117:

- Found in 19 of 439 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 6 of 386
- Called 47.4% of time when present
- Phage (with cluster) where this start called: AnarQue\_9 (DR), CaiB\_9 (DR), CharlottesWeb\_7 (DR), CloverMinnie\_9 (DR), Fresco\_7 (DR), MakoManhole\_9 (DR), MossRose\_9 (DR), Wooper\_9 (DR), Yago84\_6 (DR),

Start 120:

- Found in 34 of 439 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 32 of 386
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Allegro\_11 (B2), Arbitrator\_11 (B2), Ares\_11 (B2), Bananafish\_11 (B2), Blocker23\_11 (B2), Boyle\_11 (B2), Brownie5\_11 (B2), Calamitous\_11 (B2), Coffee\_11 (B2), Eaglehorse\_11 (B2), Faze9\_11 (B2), FrenchFry\_11 (B2), Glass\_11 (B2), Godines\_11 (B2), Hedgerow\_11 (B2), Holeinone\_11 (B2), ItsyBitsy1\_11 (B2), Kaleb\_11 (B2), Kheth\_11 (B2), Lars\_11 (B2), Laurie\_11 (B2), Lephleur\_11 (B2), LizLemon\_11 (B2), MasterPo\_11 (B2), Opia\_11 (B2), Phantasmagoria\_11 (B2), Qyrzula\_11 (B2), Rhinoforte\_11 (B2), Rosebush\_11 (B2), Sabella\_11 (B2), TA17A\_11 (B2), Tinciduntolum\_12 (B2), Tres\_11 (B2), West99\_11 (B2),

Start 121:

- Found in 12 of 439 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 386
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Sour\_10 (DR),

### Summary by clusters:

There are 17 clusters represented in this pham: singleton, B2, B10, B8, B11, B4, B5, B6, B7, B12, B1, W, B3, AD, DR, B9, B13,

Info for manual annotations of cluster AD:

- Start number 97 was manually annotated 3 times for cluster AD.

Info for manual annotations of cluster B1:

- Start number 44 was manually annotated 3 times for cluster B1.
- Start number 69 was manually annotated 7 times for cluster B1.
- Start number 96 was manually annotated 237 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 105 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 101 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 105 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 95 was manually annotated 1 time for cluster B13.
- Start number 96 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B2:

- Start number 120 was manually annotated 32 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 116 was manually annotated 44 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 79 was manually annotated 1 time for cluster B4.
- Start number 89 was manually annotated 1 time for cluster B4.
- Start number 101 was manually annotated 16 times for cluster B4.
- Start number 108 was manually annotated 1 time for cluster B4.
- Start number 109 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 105 was manually annotated 8 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 100 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 101 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 98 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 90 was manually annotated 1 time for cluster B9.
- Start number 97 was manually annotated 1 time for cluster B9.
- Start number 101 was manually annotated 1 time for cluster B9.
- Start number 104 was manually annotated 1 time for cluster B9.
- Start number 105 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster DR:

- Start number 116 was manually annotated 3 times for cluster DR.
- Start number 117 was manually annotated 6 times for cluster DR.
- Start number 121 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster W:

- Start number 101 was manually annotated 8 times for cluster W.

### **Gene Information:**

Gene: 39HC\_06 Start: 4766, Stop: 5182, Start Num: 100

Candidate Starts for 39HC\_06:

(94, 4751), (Start: 100 @4766 has 1 MA's), (Start: 116 @4817 has 47 MA's), (118, 4826), (156, 4982), (161, 5018), (162, 5024), (182, 5102), (186, 5120), (187, 5123),

Gene: 40BC\_06 Start: 4766, Stop: 5182, Start Num: 100

Candidate Starts for 40BC\_06:

(94, 4751), (Start: 100 @4766 has 1 MA's), (Start: 116 @4817 has 47 MA's), (118, 4826), (156, 4982), (161, 5018), (162, 5024), (182, 5102), (186, 5120), (187, 5123),

Gene: ABU\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for ABU\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Abinghost\_10 Start: 5949, Stop: 6284, Start Num: 116

Candidate Starts for Abinghost\_10:

(Start: 116 @5949 has 47 MA's), (129, 5991), (132, 6003), (137, 6018), (140, 6036), (157, 6093), (168, 6159), (175, 6180), (183, 6216), (186, 6228), (190, 6264),

Gene: AbsoluteMadLad\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for AbsoluteMadLad\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (127, 4072), (158, 4198), (161, 4222), (166, 4249), (168, 4255), (170, 4261),

Gene: Acadian\_9 Start: 6265, Stop: 6666, Start Num: 105

Candidate Starts for Acadian\_9:

(Start: 105 @6265 has 11 MA's), (113, 6292), (Start: 116 @6304 has 47 MA's), (123, 6340), (137, 6388), (150, 6439), (157, 6472), (158, 6481), (161, 6505), (189, 6637), (190, 6643),

Gene: Adriana\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Adriana\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Aelin\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Aelin\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Akoma\_10 Start: 5949, Stop: 6284, Start Num: 116

Candidate Starts for Akoma\_10:

(Start: 116 @5949 has 47 MA's), (129, 5991), (132, 6003), (137, 6018), (140, 6036), (157, 6093), (168, 6159), (175, 6180), (183, 6216), (186, 6228), (190, 6264),

Gene: AlanGrant\_9 Start: 7025, Stop: 7429, Start Num: 108

Candidate Starts for AlanGrant\_9:

(Start: 89 @6977 has 1 MA's), (Start: 101 @7007 has 27 MA's), (Start: 108 @7025 has 1 MA's), (141, 7160), (143, 7175), (161, 7259), (162, 7265), (168, 7292), (170, 7298), (176, 7316),

Gene: Allegro\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Allegro\_11:

(74, 7225), (78, 7234), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (151, 7477), (152, 7480), (155, 7495), (156, 7498), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: AltPhacts\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for AltPhacts\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Altwerkus\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Altwerkus\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: AnarQue\_9 Start: 6416, Stop: 6754, Start Num: 117

Candidate Starts for AnarQue\_9:

(77, 6293), (84, 6311), (92, 6338), (99, 6359), (106, 6371), (112, 6392), (Start: 117 @6416 has 6 MA's), (122, 6434), (129, 6455), (132, 6467), (134, 6473), (140, 6500), (162, 6599), (168, 6626), (180, 6665), (189, 6725), (191, 6740),

Gene: Anderson\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Anderson\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Andre\_8 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Andre\_8:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Antonia\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Antonia\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Apex\_7 Start: 5846, Stop: 6265, Start Num: 101

Candidate Starts for Apex\_7:

(4, 5255), (7, 5312), (8, 5315), (9, 5318), (10, 5345), (11, 5351), (12, 5372), (15, 5381), (17, 5393), (19, 5417), (20, 5426), (21, 5438), (24, 5462), (26, 5507), (28, 5537), (34, 5588), (39, 5621), (41, 5627), (43, 5636), (51, 5657), (Start: 69 @5750 has 7 MA's), (72, 5765), (76, 5780), (Start: 79 @5786 has 1 MA's), (80, 5789), (Start: 101 @5846 has 27 MA's), (Start: 108 @5864 has 1 MA's), (Start: 109 @5870 has 2 MA's), (110, 5876), (Start: 116 @5897 has 47 MA's), (123, 5933), (138, 5987), (161, 6098), (162, 6104), (166, 6125), (175, 6152), (180, 6170), (185, 6194), (186, 6200),

Gene: Apizium\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Apizium\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Arbiter\_11 Start: 7453, Stop: 7791, Start Num: 120

Candidate Starts for Arbiter\_11:

(74, 7315), (78, 7324), (93, 7372), (Start: 120 @7453 has 32 MA's), (123, 7468), (134, 7507), (140, 7534), (146, 7552), (150, 7561), (151, 7567), (152, 7570), (155, 7585), (157, 7591), (180, 7696), (182, 7708), (190, 7762),

Gene: Ares\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Ares\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: Argie\_5 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for Argie\_5:

(Start: 101 @2882 has 27 MA's), (107, 2897), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (166, 3149), (170, 3161), (178, 3185), (189, 3251),

Gene: Ashraf\_7 Start: 3764, Stop: 4408, Start Num: 44

Candidate Starts for Ashraf\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Athena\_11 Start: 6712, Stop: 7047, Start Num: 116

Candidate Starts for Athena\_11:

(Start: 116 @6712 has 47 MA's), (129, 6754), (132, 6766), (137, 6781), (140, 6799), (157, 6856), (168, 6922), (183, 6979), (186, 6991), (190, 7027),

Gene: Audrey\_10 Start: 5949, Stop: 6284, Start Num: 116

Candidate Starts for Audrey\_10:

(Start: 116 @5949 has 47 MA's), (129, 5991), (132, 6003), (137, 6018), (140, 6036), (157, 6093), (168, 6159), (175, 6180), (183, 6216), (186, 6228), (190, 6264),

Gene: Austelle\_8 Start: 6242, Stop: 6721, Start Num: 79

Candidate Starts for Austelle\_8:

(4, 5732), (5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (18, 5879), (19, 5894), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (39, 6095), (41, 6101), (51, 6131), (52, 6137), (54, 6146), (67, 6191), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: Badfish\_7 Start: 3878, Stop: 4411, Start Num: 69

Candidate Starts for Badfish\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Bae\_9 Start: 6271, Stop: 6672, Start Num: 105

Candidate Starts for Bae\_9:

(Start: 105 @6271 has 11 MA's), (113, 6298), (123, 6346), (137, 6394), (150, 6445), (157, 6478), (158, 6487), (161, 6511), (169, 6547), (190, 6649),

Gene: Baloo\_10 Start: 5949, Stop: 6284, Start Num: 116

Candidate Starts for Baloo\_10:

(Start: 116 @5949 has 47 MA's), (129, 5991), (132, 6003), (137, 6018), (140, 6036), (157, 6093), (168, 6159), (175, 6180), (183, 6216), (186, 6228), (190, 6264),

Gene: Bananafish\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Bananafish\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: Banjo\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Banjo\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Basato\_8 Start: 4199, Stop: 4645, Start Num: 96

Candidate Starts for Basato\_8:

(Start: 69 @4112 has 7 MA's), (72, 4127), (Start: 96 @4199 has 238 MA's), (127, 4310), (158, 4436), (161, 4460), (166, 4487), (168, 4493), (170, 4499), (186, 4574),

Gene: BatteryCK\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for BatteryCK\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Beaglebox\_7 Start: 3878, Stop: 4411, Start Num: 69

Candidate Starts for Beaglebox\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Ben11\_9 Start: 5797, Stop: 6132, Start Num: 116

Candidate Starts for Ben11\_9:

(Start: 116 @5797 has 47 MA's), (129, 5839), (132, 5851), (137, 5866), (140, 5884), (157, 5941), (168, 6007), (175, 6028), (183, 6064), (186, 6076), (190, 6112),

Gene: Bernardo\_10 Start: 5977, Stop: 6312, Start Num: 116

Candidate Starts for Bernardo\_10:

(Start: 116 @5977 has 47 MA's), (129, 6019), (132, 6031), (137, 6046), (140, 6064), (157, 6121), (168, 6187), (175, 6208), (183, 6244), (186, 6256), (190, 6292),

Gene: BiggityBass\_6 Start: 4749, Stop: 5090, Start Num: 116

Candidate Starts for BiggityBass\_6:

(Start: 116 @4749 has 47 MA's), (Start: 117 @4755 has 6 MA's), (126, 4785), (129, 4794), (131, 4803), (132, 4806), (134, 4812), (168, 4962), (189, 5061),

Gene: BirdsNest\_11 Start: 4695, Stop: 5120, Start Num: 96

Candidate Starts for BirdsNest\_11:

(46, 4506), (50, 4515), (71, 4617), (Start: 96 @4695 has 238 MA's), (113, 4740), (132, 4821), (149, 4884), (166, 4980), (178, 5016), (180, 5025), (186, 5055),

Gene: Bishoperium\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Bishoperium\_7:



(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: BlackStallion\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for BlackStallion\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Blocker23\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Blocker23\_11:

(74, 7342), (78, 7351), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: BlueHusk\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for BlueHusk\_7:

(68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (167, 4253), (168, 4256), (170, 4262), (186, 4337),

Gene: Bluephacebaby\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Bluephacebaby\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: BobbyK\_8 Start: 6233, Stop: 6718, Start Num: 76

Candidate Starts for BobbyK\_8:

(5, 5771), (7, 5786), (8, 5789), (10, 5819), (12, 5846), (15, 5855), (16, 5861), (17, 5867), (19, 5891), (26, 5981), (27, 6005), (29, 6017), (38, 6083), (41, 6098), (51, 6128), (52, 6134), (54, 6143), (57, 6161), (Start: 69 @6203 has 7 MA's), (72, 6218), (76, 6233), (Start: 79 @6239 has 1 MA's), (80, 6242), (Start: 101 @6299 has 27 MA's), (Start: 108 @6317 has 1 MA's), (Start: 109 @6323 has 2 MA's), (110, 6329), (Start: 116 @6350 has 47 MA's), (123, 6386), (138, 6440), (161, 6551), (162, 6557), (166, 6578), (175, 6605), (180, 6623), (185, 6647), (186, 6653),

Gene: Boehler\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Boehler\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Boyle\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Boyle\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Briakila\_10 Start: 6738, Stop: 7073, Start Num: 116

Candidate Starts for Briakila\_10:

(Start: 116 @6738 has 47 MA's), (129, 6780), (132, 6792), (137, 6807), (140, 6825), (157, 6882), (168, 6948), (175, 6969), (183, 7005), (186, 7017), (190, 7053),

Gene: Brilliant\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Brilliant\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: BrownCNA\_9 Start: 6553, Stop: 6972, Start Num: 101

Candidate Starts for BrownCNA\_9:

(73, 6481), (Start: 101 @6553 has 27 MA's), (Start: 108 @6571 has 1 MA's), (Start: 109 @6577 has 2 MA's), (110, 6583), (Start: 116 @6604 has 47 MA's), (123, 6640), (138, 6694), (161, 6805), (162, 6811), (175, 6859), (180, 6877), (185, 6901), (186, 6907),

Gene: Brownie5\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Brownie5\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Buckeye\_7 Start: 3967, Stop: 4413, Start Num: 96

Candidate Starts for Buckeye\_7:

(66, 3853), (71, 3889), (Start: 96 @3967 has 238 MA's), (127, 4078), (158, 4204), (161, 4228), (166, 4255), (168, 4261), (170, 4267),

Gene: Burr\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Burr\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: CRB2\_10 Start: 6980, Stop: 7420, Start Num: 90

Candidate Starts for CRB2\_10:

(Start: 90 @6980 has 1 MA's), (Start: 108 @7025 has 1 MA's), (Start: 116 @7058 has 47 MA's), (156, 7223), (160, 7253), (161, 7259), (162, 7265), (175, 7313), (185, 7355),

Gene: CaiB\_9 Start: 6416, Stop: 6754, Start Num: 117

Candidate Starts for CaiB\_9:

(77, 6293), (84, 6311), (88, 6326), (92, 6338), (99, 6359), (106, 6371), (112, 6392), (Start: 117 @6416 has 6 MA's), (122, 6434), (129, 6455), (132, 6467), (134, 6473), (140, 6500), (162, 6599), (168, 6626), (180, 6665), (189, 6725), (191, 6740),

Gene: Calamitous\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Calamitous\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (151, 7477), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: CamL\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for CamL\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: CampRoach\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for CampRoach\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262),

Gene: Cannibal\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Cannibal\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Carthage\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Carthage\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Casbah\_9 Start: 5798, Stop: 6133, Start Num: 116

Candidate Starts for Casbah\_9:

(Start: 116 @5798 has 47 MA's), (129, 5840), (132, 5852), (137, 5867), (140, 5885), (157, 5942), (168, 6008), (175, 6029), (183, 6065), (186, 6077), (190, 6113),

Gene: Cepens\_5 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for Cepens\_5:

(Start: 101 @2882 has 27 MA's), (107, 2897), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (170, 3161), (178, 3185), (179, 3191), (189, 3251),

Gene: ChaChing\_10 Start: 5964, Stop: 6299, Start Num: 116

Candidate Starts for ChaChing\_10:

(Start: 116 @5964 has 47 MA's), (129, 6006), (132, 6018), (137, 6033), (140, 6051), (157, 6108), (168, 6174), (175, 6195), (183, 6231), (186, 6243), (190, 6279),

Gene: Chaelin\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Chaelin\_7:

(40, 3750), (Start: 44 @3765 has 3 MA's), (49, 3780), (52, 3789), (55, 3810), (68, 3870), (Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (113, 4011), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (167, 4254), (168, 4257), (170, 4263), (186, 4338),

Gene: Chah\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Chah\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Chandler\_10 Start: 6712, Stop: 7047, Start Num: 116

Candidate Starts for Chandler\_10:

(Start: 116 @6712 has 47 MA's), (129, 6754), (132, 6766), (137, 6781), (140, 6799), (157, 6856), (168, 6922), (175, 6943), (183, 6979), (186, 6991), (190, 7027),

Gene: Charles1\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Charles1\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: CharlieGBrown\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for CharlieGBrown\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: CharlottesWeb\_7 Start: 4948, Stop: 5283, Start Num: 117

Candidate Starts for CharlottesWeb\_7:

(Start: 117 @4948 has 6 MA's), (Start: 121 @4960 has 1 MA's), (122, 4966), (124, 4972), (126, 4978), (129, 4987), (131, 4996), (132, 4999), (134, 5005), (148, 5056), (151, 5065), (164, 5137), (189, 5254),

Gene: CheetO\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for CheetO\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Cher\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Cher\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Childish\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Childish\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Chorkpop\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Chorkpop\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: ChrisnMich\_7 Start: 5203, Stop: 5616, Start Num: 101

Candidate Starts for ChrisnMich\_7:

(Start: 101 @5203 has 27 MA's), (Start: 108 @5221 has 1 MA's), (Start: 109 @5227 has 2 MA's), (Start: 116 @5254 has 47 MA's), (138, 5344), (153, 5401), (154, 5404), (157, 5422), (158, 5431), (161, 5455), (162, 5461), (166, 5482), (175, 5509), (182, 5539), (189, 5587),

Gene: Chunky\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Chunky\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Chute\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Chute\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: CloverMinnie\_9 Start: 6416, Stop: 6754, Start Num: 117

Candidate Starts for CloverMinnie\_9:

(77, 6293), (84, 6311), (92, 6338), (99, 6359), (106, 6371), (112, 6392), (Start: 117 @6416 has 6 MA's), (122, 6434), (129, 6455), (132, 6467), (134, 6473), (140, 6500), (162, 6599), (168, 6626), (180, 6665), (189, 6725), (191, 6740),

Gene: Cobra\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Cobra\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Coffee\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Coffee\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Colbert\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Colbert\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Coletti\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Coletti\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Compostia\_10 Start: 5957, Stop: 6292, Start Num: 116

Candidate Starts for Compostia\_10:

(Start: 116 @5957 has 47 MA's), (129, 5999), (132, 6011), (137, 6026), (140, 6044), (157, 6101), (168, 6167), (175, 6188), (183, 6224), (186, 6236), (190, 6272),

Gene: Cooper\_8 Start: 5288, Stop: 5677, Start Num: 109

Candidate Starts for Cooper\_8:

(85, 5225), (Start: 101 @5264 has 27 MA's), (Start: 108 @5282 has 1 MA's), (Start: 109 @5288 has 2 MA's), (Start: 116 @5315 has 47 MA's), (119, 5330), (139, 5408), (148, 5447), (157, 5483), (161, 5516), (166, 5543), (175, 5570), (182, 5600),

Gene: Cornobble\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Cornobble\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Corofin\_10 Start: 5974, Stop: 6309, Start Num: 116

Candidate Starts for Corofin\_10:

(Start: 116 @5974 has 47 MA's), (129, 6016), (132, 6028), (137, 6043), (140, 6061), (157, 6118), (168, 6184), (175, 6205), (183, 6241), (186, 6253), (190, 6289),

Gene: Cosmolli16\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Cosmolli16\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263),

Gene: Craff\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Craff\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Crownjwl\_8 Start: 4200, Stop: 4646, Start Num: 96

Candidate Starts for Crownjwl\_8:

(40, 3987), (Start: 44 @4002 has 3 MA's), (49, 4017), (52, 4026), (55, 4047), (68, 4107), (Start: 69 @4113 has 7 MA's), (Start: 96 @4200 has 238 MA's), (113, 4248), (127, 4311), (158, 4437), (161, 4461), (166, 4488), (167, 4491), (168, 4494), (170, 4500), (186, 4575),

Gene: D12\_05 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for D12\_05:

(Start: 101 @2882 has 27 MA's), (107, 2897), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (170, 3161), (178, 3185), (179, 3191), (189, 3251),

Gene: DaddyDaniels\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for DaddyDaniels\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: Daffy\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Daffy\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Daisy\_10 Start: 5952, Stop: 6287, Start Num: 116

Candidate Starts for Daisy\_10:

(Start: 116 @5952 has 47 MA's), (129, 5994), (132, 6006), (137, 6021), (140, 6039), (157, 6096), (168, 6162), (175, 6183), (183, 6219), (186, 6231), (190, 6267),

Gene: Daka\_7 Start: 3968, Stop: 4414, Start Num: 96

Candidate Starts for Daka\_7:

(Start: 69 @3881 has 7 MA's), (Start: 96 @3968 has 238 MA's), (127, 4079), (158, 4205), (161, 4229), (166, 4256), (168, 4262), (170, 4268),

Gene: Dati\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Dati\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Deenasa\_10 Start: 6712, Stop: 7047, Start Num: 116

Candidate Starts for Deenasa\_10:

(Start: 116 @6712 has 47 MA's), (129, 6754), (132, 6766), (137, 6781), (140, 6799), (157, 6856), (168, 6922), (175, 6943), (183, 6979), (186, 6991), (190, 7027),

Gene: DelRivs\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for DelRivs\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (168, 4258), (170, 4264), (186, 4339),

Gene: Derpp\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Derpp\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Devonte\_10 Start: 5949, Stop: 6284, Start Num: 116

Candidate Starts for Devonte\_10:

(Start: 116 @5949 has 47 MA's), (129, 5991), (132, 6003), (137, 6018), (140, 6036), (157, 6093), (168, 6159), (175, 6180), (183, 6216), (186, 6228), (190, 6264),

Gene: Dice\_8 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Dice\_8:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (168, 4258), (170, 4264), (186, 4339),

Gene: DigitDog\_9 Start: 6253, Stop: 6675, Start Num: 105

Candidate Starts for DigitDog\_9:

(Start: 105 @6253 has 11 MA's), (113, 6280), (Start: 117 @6298 has 6 MA's), (137, 6376), (148, 6424), (157, 6460), (158, 6469), (161, 6493), (168, 6526), (174, 6565), (176, 6571), (190, 6652),

Gene: Dingo\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Dingo\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (167, 4253), (168, 4256), (170, 4262), (186, 4337),

Gene: Dione\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Dione\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: DirtJuice\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for DirtJuice\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Doddsville\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Doddsville\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: DoesntMatter\_7 Start: 3875, Stop: 4408, Start Num: 69

Candidate Starts for DoesntMatter\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: DonSanchon\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for DonSanchon\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Donny\_9 Start: 6267, Stop: 6668, Start Num: 105

Candidate Starts for Donny\_9:

(Start: 105 @6267 has 11 MA's), (113, 6294), (Start: 116 @6306 has 47 MA's), (123, 6342), (137, 6390), (150, 6441), (157, 6474), (158, 6483), (161, 6507), (189, 6639), (190, 6645),

Gene: Dori\_6 Start: 3274, Stop: 3681, Start Num: 97

Candidate Starts for Dori\_6:

(60, 3136), (63, 3145), (Start: 97 @3274 has 4 MA's), (113, 3319), (Start: 117 @3337 has 6 MA's), (119, 3346), (122, 3364), (123, 3367), (128, 3388), (136, 3412), (150, 3463), (156, 3496), (158, 3508), (165, 3556), (168, 3565), (170, 3571), (188, 3646),

Gene: DuchessDung\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for DuchessDung\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Duggie\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Duggie\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: Durga\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for Durga\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (113, 4009), (158, 4198), (161, 4222), (166, 4249), (167, 4252), (168, 4255), (170, 4261), (186, 4336),

Gene: Eaglehorse\_11 Start: 7381, Stop: 7719, Start Num: 120

Candidate Starts for Eaglehorse\_11:

(74, 7243), (78, 7252), (91, 7294), (93, 7300), (Start: 120 @7381 has 32 MA's), (123, 7396), (134, 7435), (140, 7462), (146, 7480), (150, 7489), (152, 7498), (155, 7513), (157, 7519), (180, 7624), (182, 7636), (190, 7690),

Gene: EastView9101\_9 Start: 6267, Stop: 6668, Start Num: 105

Candidate Starts for EastView9101\_9:

(Start: 105 @6267 has 11 MA's), (113, 6294), (Start: 116 @6306 has 47 MA's), (123, 6342), (137, 6390), (150, 6441), (157, 6474), (158, 6483), (161, 6507), (189, 6639), (190, 6645),

Gene: Emiris\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Emiris\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: EmpTee\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for EmpTee\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Eremos\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Eremos\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Etaye\_7 Start: 3875, Stop: 4408, Start Num: 69

Candidate Starts for Etaye\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Eugenia\_8 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Eugenia\_8:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Evaa\_8 Start: 6248, Stop: 6592, Start Num: 116



Candidate Starts for Evaa\_8:

(Start: 116 @6248 has 47 MA's), (126, 6284), (129, 6293), (132, 6305), (134, 6311), (140, 6338), (146, 6356), (150, 6365), (156, 6392), (157, 6395), (160, 6422), (162, 6434), (166, 6455), (168, 6461), (185, 6524), (189, 6560),

Gene: Fang\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Fang\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Faze9\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Faze9\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: FluffyNinja\_7 Start: 3876, Stop: 4409, Start Num: 69

Candidate Starts for FluffyNinja\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Fozzie\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Fozzie\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (167, 4254), (168, 4257), (170, 4263), (186, 4338),

Gene: Frankicide\_7 Start: 3967, Stop: 4413, Start Num: 96

Candidate Starts for Frankicide\_7:

(Start: 69 @3880 has 7 MA's), (Start: 96 @3967 has 238 MA's), (127, 4078), (158, 4204), (161, 4228), (166, 4255), (168, 4261), (170, 4267),

Gene: Frederick\_8 Start: 6320, Stop: 6721, Start Num: 108

Candidate Starts for Frederick\_8:

(5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (19, 5894), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (41, 6101), (51, 6131), (52, 6137), (54, 6146), (57, 6164), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: FrenchFry\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for FrenchFry\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Fresco\_7 Start: 4941, Stop: 5276, Start Num: 117

Candidate Starts for Fresco\_7:

(81, 4833), (Start: 117 @4941 has 6 MA's), (Start: 121 @4953 has 1 MA's), (122, 4959), (124, 4965), (125, 4968), (126, 4971), (132, 4992), (134, 4998), (140, 5025), (150, 5052), (151, 5058), (168, 5148), (189, 5247),

Gene: Freya\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Freya\_7:

(40, 3753), (Start: 44 @3768 has 3 MA's), (49, 3783), (52, 3792), (55, 3813), (68, 3873), (Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (113, 4014), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: FriarPreacher\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for FriarPreacher\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Fringe\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Fringe\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: FugateOSU\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for FugateOSU\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Funsized\_13 Start: 8281, Stop: 8709, Start Num: 104

Candidate Starts for Funsized\_13:

(Start: 104 @8281 has 1 MA's), (Start: 105 @8287 has 11 MA's), (111, 8308), (158, 8506), (161, 8530), (168, 8563), (169, 8566), (175, 8605), (176, 8608), (186, 8653),

Gene: Gadget\_11 Start: 5953, Stop: 6288, Start Num: 116

Candidate Starts for Gadget\_11:

(Start: 116 @5953 has 47 MA's), (129, 5995), (132, 6007), (137, 6022), (140, 6040), (157, 6097), (168, 6163), (175, 6184), (183, 6220), (186, 6232), (190, 6268),

Gene: Gareth\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Gareth\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: GeneCoco\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for GeneCoco\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Gervas\_10 Start: 5944, Stop: 6279, Start Num: 116

Candidate Starts for Gervas\_10:

(Start: 116 @5944 has 47 MA's), (129, 5986), (132, 5998), (137, 6013), (140, 6031), (157, 6088), (168, 6154), (175, 6175), (183, 6211), (186, 6223), (190, 6259),

Gene: Giraffe\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Giraffe\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Glass\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Glass\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: GlenHope\_11 Start: 5963, Stop: 6298, Start Num: 116

Candidate Starts for GlenHope\_11:

(Start: 116 @5963 has 47 MA's), (129, 6005), (132, 6017), (137, 6032), (140, 6050), (157, 6107), (168, 6173), (175, 6194), (183, 6230), (186, 6242), (190, 6278),

Gene: GodPhather\_5 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for GodPhather\_5:

(Start: 101 @2882 has 27 MA's), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (166, 3149), (170, 3161), (178, 3185), (189, 3251),

Gene: Godines\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Godines\_11:

(74, 7225), (78, 7234), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: Gophee\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Gophee\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Grand2040\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Grand2040\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263),

Gene: Gwilliam\_8 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Gwilliam\_8:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262),

Gene: Gyarad\_007 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Gyarad\_007:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: HSavage\_7 Start: 3967, Stop: 4413, Start Num: 96

Candidate Starts for HSavage\_7:

(Start: 69 @3880 has 7 MA's), (Start: 96 @3967 has 238 MA's), (127, 4078), (158, 4204), (161, 4228), (166, 4255), (168, 4261), (170, 4267),

Gene: Haimas\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Haimas\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Haleema\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Haleema\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Halfpint\_9 Start: 5798, Stop: 6133, Start Num: 116

Candidate Starts for Halfpint\_9:

(Start: 116 @5798 has 47 MA's), (129, 5840), (132, 5852), (137, 5867), (140, 5885), (157, 5942), (168, 6008), (175, 6029), (183, 6065), (186, 6077), (190, 6113),

Gene: Hamish\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Hamish\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Hangman\_8 Start: 6302, Stop: 6721, Start Num: 101

Candidate Starts for Hangman\_8:

(5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (19, 5894), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (51, 6131), (52, 6137), (54, 6146), (57, 6164), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: Hartsy\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Hartsy\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Harvey\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Harvey\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (113, 4014), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: HarveySr\_10 Start: 5950, Stop: 6285, Start Num: 116

Candidate Starts for HarveySr\_10:

(Start: 116 @5950 has 47 MA's), (129, 5992), (132, 6004), (137, 6019), (140, 6037), (157, 6094), (168, 6160), (175, 6181), (183, 6217), (186, 6229), (190, 6265),

Gene: Hashim76\_12 Start: 5115, Stop: 5540, Start Num: 96

Candidate Starts for Hashim76\_12:

(71, 5037), (Start: 96 @5115 has 238 MA's), (113, 5160), (149, 5304), (166, 5400),

Gene: Heath\_8 Start: 6302, Stop: 6721, Start Num: 101

Candidate Starts for Heath\_8:

(5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (19, 5894), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (41, 6101), (51, 6131), (52, 6137), (54, 6146), (57, 6164), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: Heathcliff\_10 Start: 5944, Stop: 6279, Start Num: 116

Candidate Starts for Heathcliff\_10:

(Start: 116 @5944 has 47 MA's), (129, 5986), (132, 5998), (137, 6013), (140, 6031), (157, 6088), (168, 6154), (175, 6175), (183, 6211), (186, 6223), (190, 6259),

Gene: Hedgerow\_11 Start: 7462, Stop: 7800, Start Num: 120

Candidate Starts for Hedgerow\_11:

(74, 7324), (78, 7333), (91, 7375), (93, 7381), (Start: 120 @7462 has 32 MA's), (123, 7477), (134, 7516), (140, 7543), (146, 7561), (150, 7570), (152, 7579), (155, 7594), (157, 7600), (180, 7705), (182, 7717), (190, 7771),

Gene: Held\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Held\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: HenryJackson\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for HenryJackson\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Hertubise\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Hertubise\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Hetaeria\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Hetaeria\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: HighStump\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for HighStump\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Hocus\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Hocus\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Holeinone\_11 Start: 7362, Stop: 7700, Start Num: 120

Candidate Starts for Holeinone\_11:

(Start: 120 @7362 has 32 MA's), (123, 7377), (134, 7416), (140, 7443), (146, 7461), (150, 7470), (151, 7476), (152, 7479), (155, 7494), (156, 7497), (157, 7500), (180, 7605), (182, 7617), (190, 7671),

Gene: Horchata\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Horchata\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (168, 4258), (170, 4264), (186, 4339),

Gene: Hosp\_04 Start: 2968, Stop: 3384, Start Num: 100

Candidate Starts for Hosp\_04:

(94, 2953), (Start: 100 @2968 has 1 MA's), (Start: 116 @3019 has 47 MA's), (118, 3028), (156, 3184), (160, 3214), (161, 3220), (162, 3226), (182, 3304), (186, 3322), (187, 3325),

Gene: Hydro\_8 Start: 6299, Stop: 6718, Start Num: 101

Candidate Starts for Hydro\_8:

(5, 5771), (7, 5786), (8, 5789), (10, 5819), (12, 5846), (15, 5855), (16, 5861), (17, 5867), (19, 5891), (26, 5981), (27, 6005), (29, 6017), (38, 6083), (41, 6098), (51, 6128), (52, 6134), (54, 6143), (57, 6161), (Start: 69 @6203 has 7 MA's), (72, 6218), (76, 6233), (Start: 79 @6239 has 1 MA's), (80, 6242), (Start: 101 @6299 has 27 MA's), (Start: 108 @6317 has 1 MA's), (Start: 109 @6323 has 2 MA's), (110, 6329), (Start: 116 @6350 has 47 MA's), (123, 6386), (138, 6440), (161, 6551), (162, 6557), (166, 6578), (175, 6605), (180, 6623), (185, 6647), (186, 6653),

Gene: ImtiyazSitla\_7 Start: 3764, Stop: 4408, Start Num: 44

Candidate Starts for ImtiyazSitla\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Imvubu\_4 Start: 3089, Stop: 3511, Start Num: 105

Candidate Starts for Imvubu\_4:

(Start: 105 @3089 has 11 MA's), (128, 3185), (147, 3257), (157, 3296), (161, 3329), (168, 3362), (175, 3404), (176, 3407), (186, 3452),

Gene: Inchworm\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Inchworm\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Indlovu\_8 Start: 5946, Stop: 6359, Start Num: 101

Candidate Starts for Indlovu\_8:

(1, 4827), (2, 5040), (3, 5112), (13, 5490), (Start: 96 @5937 has 238 MA's), (Start: 101 @5946 has 27 MA's), (Start: 108 @5964 has 1 MA's), (115, 5994), (Start: 116 @5997 has 47 MA's), (156, 6162), (160, 6192), (161, 6198), (166, 6225), (175, 6252), (180, 6270),

Gene: Inverness\_7 Start: 3967, Stop: 4413, Start Num: 96

Candidate Starts for Inverness\_7:

(Start: 69 @3880 has 7 MA's), (Start: 96 @3967 has 238 MA's), (127, 4078), (158, 4204), (161, 4228), (166, 4255), (168, 4261), (170, 4267),

Gene: Iridoclysis\_7 Start: 3969, Stop: 4415, Start Num: 96

Candidate Starts for Iridoclysis\_7:

(Start: 69 @3882 has 7 MA's), (Start: 96 @3969 has 238 MA's), (127, 4080), (158, 4206), (161, 4230), (166, 4257), (168, 4263), (170, 4269), (186, 4344),

Gene: IsaacEli\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for IsaacEli\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: ItsyBitsy1\_11 Start: 7354, Stop: 7692, Start Num: 120

Candidate Starts for ItsyBitsy1\_11:

(74, 7216), (78, 7225), (91, 7267), (93, 7273), (Start: 120 @7354 has 32 MA's), (123, 7369), (134, 7408), (140, 7435), (146, 7453), (150, 7462), (152, 7471), (155, 7486), (157, 7492), (180, 7597), (182, 7609), (190, 7663),

Gene: JAMaL\_7 Start: 5846, Stop: 6244, Start Num: 109

Candidate Starts for JAMaL\_7:

(Start: 101 @5822 has 27 MA's), (Start: 108 @5840 has 1 MA's), (Start: 109 @5846 has 2 MA's), (Start: 116 @5873 has 47 MA's), (138, 5963), (144, 5993), (153, 6020), (154, 6023), (157, 6041), (161, 6074), (175, 6128), (189, 6206),

Gene: JDog\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for JDog\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: JacAttac\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for JacAttac\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Jackstina\_9 Start: 5866, Stop: 6201, Start Num: 116

Candidate Starts for Jackstina\_9:

(Start: 116 @5866 has 47 MA's), (129, 5908), (132, 5920), (137, 5935), (140, 5953), (157, 6010), (168, 6076), (175, 6097), (183, 6133), (186, 6145), (190, 6181),

Gene: JaguarMi\_9 Start: 6144, Stop: 6545, Start Num: 108

Candidate Starts for JaguarMi\_9:

(75, 6057), (Start: 79 @6066 has 1 MA's), (80, 6069), (Start: 101 @6126 has 27 MA's), (Start: 108 @6144 has 1 MA's), (Start: 109 @6150 has 2 MA's), (110, 6156), (Start: 116 @6177 has 47 MA's), (123, 6213), (138, 6267), (161, 6378), (162, 6384), (166, 6405), (175, 6432), (185, 6474), (186, 6480),

Gene: JakeO\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for JakeO\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: JangoPhett\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for JangoPhett\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263),

Gene: Jeon\_5 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for Jeon\_5:

(Start: 101 @2882 has 27 MA's), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (166, 3149), (170, 3161), (178, 3185), (189, 3251),

Gene: Jillium\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Jillium\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Jiminy\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Jiminy\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: Jolie1\_06 Start: 4766, Stop: 5182, Start Num: 100

Candidate Starts for Jolie1\_06:

(94, 4751), (Start: 100 @4766 has 1 MA's), (Start: 116 @4817 has 47 MA's), (118, 4826), (156, 4982), (160, 5012), (161, 5018), (182, 5102), (185, 5114), (186, 5120), (187, 5123),

Gene: KLucky39\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for KLucky39\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Kahve\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Kahve\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Kailash\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Kailash\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Kaleb\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Kaleb\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Kamiyu\_10 Start: 5944, Stop: 6279, Start Num: 116

Candidate Starts for Kamiyu\_10:

(Start: 116 @5944 has 47 MA's), (129, 5986), (132, 5998), (137, 6013), (140, 6031), (157, 6088), (168, 6154), (175, 6175), (183, 6211), (186, 6223), (190, 6259),

Gene: Katniss\_7 Start: 3879, Stop: 4412, Start Num: 69

Candidate Starts for Katniss\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: KayaCho\_6 Start: 4769, Stop: 5185, Start Num: 100

Candidate Starts for KayaCho\_6:

(94, 4754), (Start: 100 @4769 has 1 MA's), (115, 4817), (Start: 116 @4820 has 47 MA's), (118, 4829), (156, 4985), (158, 4997), (160, 5015), (161, 5021), (162, 5027), (182, 5105), (185, 5117), (186, 5123), (187, 5126),

Gene: Keitherie\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for Keitherie\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (127, 4072), (158, 4198), (161, 4222), (166, 4249), (168, 4255), (170, 4261), (186, 4336),

Gene: Kheth\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Kheth\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),



Gene: Kikipoo\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Kikipoo\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Kimbrough\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Kimbrough\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: KingTut\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for KingTut\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: KingVeVeVe\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for KingVeVeVe\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (113, 4014), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (167, 4257), (168, 4260), (170, 4266), (186, 4341),

Gene: KlimbOn\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for KlimbOn\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Kloppinator\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Kloppinator\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Knocker\_13 Start: 8739, Stop: 9161, Start Num: 105

Candidate Starts for Knocker\_13:

(Start: 105 @8739 has 11 MA's), (Start: 109 @8751 has 2 MA's), (111, 8760), (113, 8766), (114, 8769), (128, 8835), (133, 8850), (147, 8907), (157, 8946), (161, 8979), (163, 8991), (168, 9012), (173, 9048), (176, 9057), (177, 9060), (181, 9075), (184, 9093), (186, 9102),

Gene: Kronus\_9 Start: 6559, Stop: 6894, Start Num: 116

Candidate Starts for Kronus\_9:

(Start: 116 @6559 has 47 MA's), (129, 6601), (132, 6613), (137, 6628), (140, 6646), (157, 6703), (168, 6769), (175, 6790), (183, 6826), (186, 6838), (190, 6874),

Gene: Kwadwo\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Kwadwo\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Kwksand96\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Kwksand96\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (167, 4253), (168, 4256), (170, 4262), (186, 4337),

Gene: Labeouficaum\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Labeouficaum\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Lars\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Lars\_11:

(74, 7342), (78, 7351), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: LasagnaCat\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for LasagnaCat\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Lasso\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Lasso\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Laurie\_11 Start: 7364, Stop: 7702, Start Num: 120

Candidate Starts for Laurie\_11:

(74, 7226), (78, 7235), (91, 7277), (93, 7283), (Start: 120 @7364 has 32 MA's), (123, 7379), (134, 7418), (140, 7445), (146, 7463), (150, 7472), (151, 7478), (152, 7481), (155, 7496), (157, 7502), (180, 7607), (182, 7619), (190, 7673),

Gene: LeeLot\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for LeeLot\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Lego3393\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Lego3393\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Legolas\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Legolas\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: LeiMonet\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for LeiMonet\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (113, 4009), (158, 4198), (161, 4222), (166, 4249), (167, 4252), (168, 4255), (170, 4261), (186, 4336),

Gene: LemonSlice\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for LemonSlice\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Lephleur\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Lephleur\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: LestyG\_10 Start: 5953, Stop: 6288, Start Num: 116

Candidate Starts for LestyG\_10:

(Start: 116 @5953 has 47 MA's), (129, 5995), (132, 6007), (137, 6022), (140, 6040), (157, 6097), (168, 6163), (183, 6220), (186, 6232), (190, 6268),

Gene: LilMcDreamy\_9 Start: 7042, Stop: 7443, Start Num: 105

Candidate Starts for LilMcDreamy\_9:

(6, 6490), (33, 6757), (35, 6775), (103, 7033), (Start: 105 @7042 has 11 MA's), (Start: 109 @7054 has 2 MA's), (113, 7069), (Start: 116 @7081 has 47 MA's), (137, 7165), (144, 7201), (161, 7282), (168, 7315), (170, 7321), (184, 7375),

Gene: LizLemon\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for LizLemon\_11:

(74, 7342), (78, 7351), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Lolalove\_8 Start: 6299, Stop: 6718, Start Num: 101

Candidate Starts for Lolalove\_8:

(5, 5771), (7, 5786), (8, 5789), (10, 5819), (12, 5846), (15, 5855), (16, 5861), (17, 5867), (19, 5891), (26, 5981), (27, 6005), (29, 6017), (38, 6083), (41, 6098), (51, 6128), (52, 6134), (54, 6143), (57, 6161), (Start: 69 @6203 has 7 MA's), (72, 6218), (76, 6233), (Start: 79 @6239 has 1 MA's), (80, 6242), (Start: 101 @6299 has 27 MA's), (Start: 108 @6317 has 1 MA's), (Start: 109 @6323 has 2 MA's), (110, 6329), (Start: 116 @6350 has 47 MA's), (123, 6386), (138, 6440), (161, 6551), (162, 6557), (166, 6578), (175, 6605), (180, 6623), (185, 6647), (186, 6653),

Gene: Longacauda\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Longacauda\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: Lopsy\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Lopsy\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: LostAndPhound\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for LostAndPhound\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: LuckyMarjie\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for LuckyMarjie\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Lulumae\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Lulumae\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Lulwa\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Lulwa\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Lumine\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Lumine\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: MRabcd\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for MRabcd\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Mag7\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Mag7\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Magic8\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Magic8\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Magpie\_8 Start: 6457, Stop: 6876, Start Num: 101

Candidate Starts for Magpie\_8:

(75, 6388), (Start: 79 @6397 has 1 MA's), (80, 6400), (Start: 101 @6457 has 27 MA's), (Start: 108 @6475 has 1 MA's), (Start: 109 @6481 has 2 MA's), (110, 6487), (Start: 116 @6508 has 47 MA's), (123, 6544), (138, 6598), (161, 6709), (162, 6715), (166, 6736), (175, 6763), (180, 6781), (185, 6805), (186, 6811),

Gene: MakoManhole\_9 Start: 6416, Stop: 6754, Start Num: 117

Candidate Starts for MakoManhole\_9:

(77, 6293), (84, 6311), (92, 6338), (99, 6359), (106, 6371), (112, 6392), (Start: 117 @6416 has 6 MA's), (122, 6434), (129, 6455), (132, 6467), (134, 6473), (140, 6500), (162, 6599), (168, 6626), (180, 6665), (189, 6725), (191, 6740),

Gene: Mana\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Mana\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Manad\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Manad\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Mao1\_5 Start: 3670, Stop: 4077, Start Num: 97

Candidate Starts for Mao1\_5:

(87, 3637), (Start: 97 @3670 has 4 MA's), (113, 3715), (Start: 117 @3733 has 6 MA's), (119, 3742), (122, 3760), (123, 3763), (127, 3778), (154, 3877), (156, 3892), (159, 3907), (165, 3952), (168, 3961), (170, 3967), (188, 4042),

Gene: Marley1013\_10 Start: 6739, Stop: 7074, Start Num: 116

Candidate Starts for Marley1013\_10:

(Start: 116 @6739 has 47 MA's), (129, 6781), (132, 6793), (137, 6808), (140, 6826), (157, 6883), (168, 6949), (175, 6970), (183, 7006), (186, 7018), (190, 7054),

Gene: Maru\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Maru\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263),

Gene: Mask\_6 Start: 3671, Stop: 4078, Start Num: 97

Candidate Starts for Mask\_6:

(87, 3638), (Start: 97 @3671 has 4 MA's), (113, 3716), (Start: 117 @3734 has 6 MA's), (119, 3743), (122, 3761), (123, 3764), (127, 3779), (154, 3878), (156, 3893), (159, 3908), (165, 3953), (168, 3962), (170, 3968), (188, 4043),

Gene: Maskar\_7 Start: 3764, Stop: 4408, Start Num: 44

Candidate Starts for Maskar\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: MasterPo\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for MasterPo\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: Matalotodo\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Matalotodo\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Mcshane\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Mcshane\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Mecca\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Mecca\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Megabear\_5 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for Megabear\_5:

(Start: 101 @2882 has 27 MA's), (107, 2897), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (170, 3161), (178, 3185), (179, 3191), (189, 3251),

Gene: Megamind20\_8 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Megamind20\_8:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Megatron\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Megatron\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Melc17\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Melc17\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (167, 4253), (168, 4256), (170, 4262), (186, 4337),

Gene: MelsMeow\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for MelsMeow\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (167, 4253), (168, 4256), (170, 4262), (186, 4337),

Gene: Mesh1\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Mesh1\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: MichaelPhcott\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for MichaelPhcott\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Mikota\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Mikota\_7:

(40, 3750), (Start: 44 @3765 has 3 MA's), (49, 3780), (52, 3789), (55, 3810), (68, 3870), (Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (167, 4254), (168, 4257), (170, 4263), (186, 4338),

Gene: MiniBoss\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for MiniBoss\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: MitKao\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for MitKao\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Mithril\_8 Start: 6302, Stop: 6721, Start Num: 101

Candidate Starts for Mithril\_8:

(5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (18, 5879), (19, 5894), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (41, 6101), (51, 6131), (52, 6137), (54, 6146), (67, 6191), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (154, 6503), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: MmasiCarm\_10 Start: 5949, Stop: 6284, Start Num: 116

Candidate Starts for MmasiCarm\_10:

(Start: 116 @5949 has 47 MA's), (129, 5991), (132, 6003), (137, 6018), (140, 6036), (157, 6093), (168, 6159), (175, 6180), (183, 6216), (186, 6228), (190, 6264),

Gene: Morgushi\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Morgushi\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (186, 4338),

Gene: Mortcellus\_9 Start: 6587, Stop: 6922, Start Num: 116

Candidate Starts for Mortcellus\_9:

(Start: 116 @6587 has 47 MA's), (129, 6629), (132, 6641), (137, 6656), (140, 6674), (157, 6731), (168, 6797), (175, 6818), (183, 6854), (186, 6866), (190, 6902),

Gene: Morty\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Morty\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Morty007\_10 Start: 6739, Stop: 7074, Start Num: 116

Candidate Starts for Morty007\_10:

(Start: 116 @6739 has 47 MA's), (129, 6781), (132, 6793), (137, 6808), (140, 6826), (157, 6883), (168, 6949), (175, 6970), (183, 7006), (186, 7018), (190, 7054),

Gene: Mosaic\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Mosaic\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: MossRose\_9 Start: 6416, Stop: 6754, Start Num: 117

Candidate Starts for MossRose\_9:

(77, 6293), (84, 6311), (92, 6338), (99, 6359), (106, 6371), (112, 6392), (Start: 117 @6416 has 6 MA's), (122, 6434), (129, 6455), (132, 6467), (134, 6473), (140, 6500), (162, 6599), (168, 6626), (180, 6665), (188, 6707), (189, 6725), (191, 6740),

Gene: MrPhizzler\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for MrPhizzler\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (113, 4009), (158, 4198), (161, 4222), (166, 4249), (167, 4252), (168, 4255), (170, 4261), (186, 4336),

Gene: Mudslide\_8 Start: 6550, Stop: 6969, Start Num: 101

Candidate Starts for Mudslide\_8:

(73, 6478), (Start: 101 @6550 has 27 MA's), (Start: 108 @6568 has 1 MA's), (Start: 109 @6574 has 2 MA's), (110, 6580), (Start: 116 @6601 has 47 MA's), (123, 6637), (138, 6691), (161, 6802), (162, 6808), (166, 6829), (175, 6856), (180, 6874), (185, 6898), (186, 6904),

Gene: Mulan\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Mulan\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Murdoc\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Murdoc\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Mutante\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Mutante\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Mysterious\_9 Start: 6540, Stop: 6941, Start Num: 105

Candidate Starts for Mysterious\_9:

(Start: 105 @6540 has 11 MA's), (Start: 109 @6552 has 2 MA's), (111, 6561), (113, 6567), (Start: 116 @6579 has 47 MA's), (137, 6663), (144, 6699), (150, 6714), (157, 6747), (158, 6756), (161, 6780), (163, 6792), (170, 6819), (186, 6882), (190, 6918),

Gene: NHagos\_7 Start: 4896, Stop: 5237, Start Num: 116

Candidate Starts for NHagos\_7:

(Start: 116 @4896 has 47 MA's), (Start: 117 @4902 has 6 MA's), (124, 4926), (129, 4941), (130, 4944), (132, 4953), (144, 4998), (151, 5019), (162, 5082), (168, 5109), (189, 5208), (192, 5226),

Gene: Nacho\_007 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Nacho\_007:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Nanao\_7 Start: 5221, Stop: 5616, Start Num: 108

Candidate Starts for Nanao\_7:

(Start: 101 @5203 has 27 MA's), (Start: 108 @5221 has 1 MA's), (Start: 109 @5227 has 2 MA's), (Start: 116 @5254 has 47 MA's), (138, 5344), (153, 5401), (154, 5404), (157, 5422), (158, 5431), (161, 5455), (166, 5482), (175, 5509), (182, 5539), (189, 5587),

Gene: Nangang\_9 Start: 6253, Stop: 6675, Start Num: 105

Candidate Starts for Nangang\_9:

(Start: 105 @6253 has 11 MA's), (113, 6280), (Start: 117 @6298 has 6 MA's), (137, 6376), (148, 6424), (157, 6460), (158, 6469), (161, 6493), (168, 6526), (174, 6565), (176, 6571), (190, 6652),

Gene: Neos5\_10 Start: 6739, Stop: 7074, Start Num: 116

Candidate Starts for Neos5\_10:

(Start: 116 @6739 has 47 MA's), (129, 6781), (132, 6793), (137, 6808), (140, 6826), (157, 6883), (168, 6949), (175, 6970), (183, 7006), (186, 7018), (190, 7054),

Gene: Newman\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Newman\_7:



(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Nicole21\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Nicole21\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263),

Gene: Nigel\_6 Start: 5100, Stop: 5522, Start Num: 101

Candidate Starts for Nigel\_6:

(Start: 101 @5100 has 27 MA's), (Start: 108 @5118 has 1 MA's), (Start: 109 @5124 has 2 MA's), (Start: 116 @5151 has 47 MA's), (138, 5241), (144, 5271), (153, 5298), (154, 5301), (157, 5319), (161, 5352), (166, 5379), (175, 5406), (189, 5484),

Gene: Nozo\_10 Start: 6711, Stop: 7046, Start Num: 116

Candidate Starts for Nozo\_10:

(Start: 116 @6711 has 47 MA's), (129, 6753), (132, 6765), (137, 6780), (140, 6798), (157, 6855), (168, 6921), (175, 6942), (183, 6978), (186, 6990), (190, 7026),

Gene: Numberten\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Numberten\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Nyala\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Nyala\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: OSmaximus\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for OSmaximus\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (167, 4254), (168, 4257), (170, 4263), (186, 4338),

Gene: Obutu\_10 Start: 5950, Stop: 6285, Start Num: 116

Candidate Starts for Obutu\_10:

(Start: 116 @5950 has 47 MA's), (129, 5992), (132, 6004), (137, 6019), (140, 6037), (157, 6094), (168, 6160), (175, 6181), (183, 6217), (186, 6229), (190, 6265),

Gene: Olak\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Olak\_7:

(40, 3750), (Start: 44 @3765 has 3 MA's), (49, 3780), (52, 3789), (55, 3810), (68, 3870), (Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (113, 4011), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (167, 4254), (168, 4257), (170, 4263), (186, 4338),

Gene: Oline\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Oline\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Olive\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Olive\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: OliverWalter\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for OliverWalter\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (127, 4072), (158, 4198), (161, 4222), (166, 4249), (168, 4255), (170, 4261),

Gene: Omniscient\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Omniscient\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Oosterbaan\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Oosterbaan\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Opia\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Opia\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: OrangeOswald\_10 Start: 5949, Stop: 6284, Start Num: 116

Candidate Starts for OrangeOswald\_10:

(Start: 116 @5949 has 47 MA's), (129, 5991), (132, 6003), (137, 6018), (140, 6036), (157, 6093), (168, 6159), (175, 6180), (183, 6216), (186, 6228), (190, 6264),

Gene: Orfeu\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Orfeu\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (168, 4258), (170, 4264), (186, 4339),

Gene: Orion\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Orion\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Orwigg\_8 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Orwigg\_8:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: PG1\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for PG1\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: PR\_05 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for PR\_05:

(Start: 101 @2882 has 27 MA's), (107, 2897), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (170, 3161), (178, 3185), (179, 3191), (189, 3251),

Gene: Pacifista\_8 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Pacifista\_8:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (167, 4253), (168, 4256), (170, 4262), (186, 4337),

Gene: PenguinLover67\_11 Start: 7154, Stop: 7573, Start Num: 97

Candidate Starts for PenguinLover67\_11:

(32, 6878), (42, 6944), (47, 6962), (54, 6986), (56, 7001), (57, 7004), (59, 7016), (61, 7022), (62, 7025), (64, 7034), (Start: 69 @7064 has 7 MA's), (70, 7070), (72, 7079), (80, 7103), (Start: 97 @7154 has 4 MA's), (115, 7208), (Start: 116 @7211 has 47 MA's), (148, 7343), (156, 7376), (160, 7406), (161, 7412), (162, 7418), (166, 7439), (175, 7466),

Gene: Phaedrus\_9 Start: 5866, Stop: 6201, Start Num: 116

Candidate Starts for Phaedrus\_9:

(Start: 116 @5866 has 47 MA's), (129, 5908), (132, 5920), (137, 5935), (140, 5953), (157, 6010), (168, 6076), (175, 6097), (183, 6133), (186, 6145), (190, 6181),

Gene: Phamished\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Phamished\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Phantasmagoria\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Phantasmagoria\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: Phareon\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Phareon\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: PhatCats2014\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for PhatCats2014\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: PhatLouie\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for PhatLouie\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Phayeta\_10 Start: 5825, Stop: 6160, Start Num: 116

Candidate Starts for Phayeta\_10:

(Start: 116 @5825 has 47 MA's), (129, 5867), (132, 5879), (137, 5894), (140, 5912), (157, 5969), (168, 6035), (175, 6056), (183, 6092), (186, 6104), (190, 6140),

Gene: Phelemich\_9 Start: 6543, Stop: 6944, Start Num: 105

Candidate Starts for Phelemich\_9:

(Start: 105 @6543 has 11 MA's), (Start: 109 @6555 has 2 MA's), (110, 6561), (111, 6564), (Start: 116 @6582 has 47 MA's), (137, 6666), (144, 6702), (150, 6717), (157, 6750), (158, 6759), (161, 6783),

(186, 6885), (190, 6921),

Gene: PhenghisKhan\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for PhenghisKhan\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Pherdinand\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Pherdinand\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Phergie\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Phergie\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Philly\_9 Start: 5839, Stop: 6174, Start Num: 116

Candidate Starts for Philly\_9:

(Start: 116 @5839 has 47 MA's), (129, 5881), (132, 5893), (137, 5908), (140, 5926), (157, 5983), (168, 6049), (175, 6070), (183, 6106), (186, 6118), (190, 6154),

Gene: Phipps\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Phipps\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Phleuron\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Phleuron\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Phlyer\_10 Start: 6706, Stop: 7041, Start Num: 116

Candidate Starts for Phlyer\_10:

(Start: 116 @6706 has 47 MA's), (129, 6748), (132, 6760), (137, 6775), (140, 6793), (157, 6850), (168, 6916), (175, 6937), (183, 6973), (186, 6985), (190, 7021),

Gene: PhrankReynolds\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for PhrankReynolds\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: PhrodoBaggins\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for PhrodoBaggins\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Phunky\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Phunky\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Piglet\_007 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Piglet\_007:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: PinheadLarry\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for PinheadLarry\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Pinkman\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Pinkman\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Pipefish\_10 Start: 6844, Stop: 7179, Start Num: 116

Candidate Starts for Pipefish\_10:

(Start: 116 @6844 has 47 MA's), (129, 6886), (132, 6898), (137, 6913), (140, 6931), (157, 6988), (168, 7054), (175, 7075), (183, 7111), (186, 7123), (190, 7159),

Gene: Pipsqueak\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Pipsqueak\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Placalicious\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Placalicious\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Plmatters\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Plmatters\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Podrick\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Podrick\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Pops\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Pops\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265),

Gene: Poster\_7 Start: 5221, Stop: 5616, Start Num: 108

Candidate Starts for Poster\_7:

(Start: 101 @5203 has 27 MA's), (Start: 108 @5221 has 1 MA's), (Start: 109 @5227 has 2 MA's), (Start: 116 @5254 has 47 MA's), (138, 5344), (153, 5401), (154, 5404), (157, 5422), (158, 5431), (161, 5455), (166, 5482), (175, 5509), (182, 5539), (189, 5587),

Gene: Potter\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Potter\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Prickles\_7 Start: 3971, Stop: 4417, Start Num: 96

Candidate Starts for Prickles\_7:

(Start: 69 @3884 has 7 MA's), (Start: 96 @3971 has 238 MA's), (127, 4082), (158, 4208), (161, 4232), (166, 4259), (168, 4265), (170, 4271),

Gene: Prince\_9 Start: 6462, Stop: 6881, Start Num: 101

Candidate Starts for Prince\_9:

(68, 6366), (70, 6378), (Start: 101 @6462 has 27 MA's), (Start: 108 @6480 has 1 MA's), (Start: 109 @6486 has 2 MA's), (110, 6492), (Start: 116 @6513 has 47 MA's), (123, 6549), (138, 6603), (161, 6714), (162, 6720), (166, 6741), (175, 6768), (180, 6786), (185, 6810), (186, 6816),

Gene: ProfessorX\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for ProfessorX\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Puhltonio\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Puhltonio\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: QueenBeane\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for QueenBeane\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Quesadilla\_10 Start: 6979, Stop: 7392, Start Num: 101

Candidate Starts for Quesadilla\_10:

(36, 6742), (42, 6766), (45, 6772), (48, 6781), (51, 6787), (54, 6802), (59, 6832), (61, 6838), (62, 6841), (Start: 69 @6880 has 7 MA's), (70, 6886), (72, 6895), (80, 6919), (Start: 96 @6970 has 238 MA's), (Start: 101 @6979 has 27 MA's), (Start: 116 @7030 has 47 MA's), (118, 7039), (138, 7120), (142, 7138), (153, 7177), (156, 7195), (161, 7231), (162, 7237), (180, 7303), (186, 7333),

Gene: Quisquilliae\_8 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Quisquilliae\_8:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Qyrzula\_11 Start: 7453, Stop: 7791, Start Num: 120

Candidate Starts for Qyrzula\_11:

(74, 7315), (78, 7324), (93, 7372), (Start: 120 @7453 has 32 MA's), (123, 7468), (134, 7507), (140, 7534), (146, 7552), (150, 7561), (152, 7570), (155, 7585), (157, 7591), (180, 7696), (182, 7708), (190, 7762),

Gene: RagingRooster\_10 Start: 5950, Stop: 6285, Start Num: 116

Candidate Starts for RagingRooster\_10:

(Start: 116 @5950 has 47 MA's), (129, 5992), (132, 6004), (137, 6019), (140, 6037), (157, 6094), (168, 6160), (175, 6181), (183, 6217), (186, 6229), (190, 6265),

Gene: RawrgerThat\_8 Start: 6296, Stop: 6715, Start Num: 101

Candidate Starts for RawrgerThat\_8:

(4, 5729), (5, 5771), (7, 5786), (8, 5789), (10, 5819), (12, 5846), (15, 5855), (16, 5861), (17, 5867), (19, 5891), (26, 5981), (27, 6005), (30, 6023), (32, 6032), (38, 6080), (41, 6095), (51, 6125), (52, 6131), (54, 6140), (57, 6158), (Start: 69 @6200 has 7 MA's), (72, 6215), (76, 6230), (Start: 79 @6236 has 1 MA's), (80, 6239), (Start: 101 @6296 has 27 MA's), (Start: 108 @6314 has 1 MA's), (Start: 109 @6320 has 2 MA's), (110, 6326), (Start: 116 @6347 has 47 MA's), (123, 6383), (138, 6437), (161, 6548), (162, 6554), (175, 6602), (180, 6620), (185, 6644), (186, 6650),

Gene: RedMaple\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for RedMaple\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (165, 4247), (166, 4250), (168, 4256), (170, 4262),

Gene: Reprobate\_9 Start: 6540, Stop: 6941, Start Num: 105

Candidate Starts for Reprobate\_9:

(Start: 105 @6540 has 11 MA's), (Start: 109 @6552 has 2 MA's), (110, 6558), (111, 6561), (Start: 116 @6579 has 47 MA's), (137, 6663), (144, 6699), (150, 6714), (157, 6747), (158, 6756), (161, 6780), (186, 6882), (190, 6918),

Gene: Rhinoforte\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Rhinoforte\_11:

(74, 7342), (78, 7351), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (151, 7594), (152, 7597), (155, 7612), (156, 7615), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Rich\_9 Start: 6268, Stop: 6669, Start Num: 105

Candidate Starts for Rich\_9:

(Start: 105 @6268 has 11 MA's), (113, 6295), (123, 6343), (137, 6391), (150, 6442), (157, 6475), (158, 6484), (161, 6508), (169, 6544), (190, 6646),

Gene: Ricotta\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Ricotta\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: Riggan\_7 Start: 3969, Stop: 4415, Start Num: 96

Candidate Starts for Riggan\_7:

(Start: 69 @3882 has 7 MA's), (Start: 96 @3969 has 238 MA's), (127, 4080), (158, 4206), (161, 4230), (166, 4257), (168, 4263), (170, 4269), (186, 4344),

Gene: Rimu\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for Rimu\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (113, 4009), (158, 4198), (161, 4222), (166, 4249), (167, 4252), (168, 4255), (170, 4261), (186, 4336),

Gene: Rita1961\_10 Start: 5950, Stop: 6285, Start Num: 116

Candidate Starts for Rita1961\_10:

(Start: 116 @5950 has 47 MA's), (129, 5992), (132, 6004), (137, 6019), (140, 6037), (157, 6094), (168, 6160), (175, 6181), (183, 6217), (186, 6229), (190, 6265),

Gene: Robyn\_7 Start: 3967, Stop: 4413, Start Num: 96

Candidate Starts for Robyn\_7:

(Start: 69 @3880 has 7 MA's), (Start: 96 @3967 has 238 MA's), (127, 4078), (158, 4204), (161, 4228), (166, 4255), (168, 4261), (170, 4267),

Gene: Roliet\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Roliet\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: RomaT\_10 Start: 6712, Stop: 7047, Start Num: 116

Candidate Starts for RomaT\_10:

(Start: 116 @6712 has 47 MA's), (129, 6754), (132, 6766), (137, 6781), (140, 6799), (157, 6856), (168, 6922), (175, 6943), (183, 6979), (186, 6991), (190, 7027),

Gene: Roscoe\_8 Start: 4200, Stop: 4646, Start Num: 96

Candidate Starts for Roscoe\_8:

(40, 3987), (Start: 44 @4002 has 3 MA's), (49, 4017), (52, 4026), (55, 4047), (68, 4107), (Start: 69 @4113 has 7 MA's), (Start: 96 @4200 has 238 MA's), (113, 4248), (127, 4311), (158, 4437), (161, 4461), (166, 4488), (167, 4491), (168, 4494), (170, 4500), (186, 4575),

Gene: Rosebush\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for Rosebush\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Roy17\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Roy17\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: SDcharge11\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for SDcharge11\_7:

(68, 3871), (Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (167, 4255), (168, 4258), (170, 4264), (186, 4339),

Gene: Sabella\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Sabella\_11:

(74, 7225), (78, 7234), (91, 7276), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: Saguaro\_10 Start: 7187, Stop: 7600, Start Num: 101

Candidate Starts for Saguaro\_10:

(70, 7094), (72, 7103), (80, 7127), (82, 7130), (Start: 101 @7187 has 27 MA's), (Start: 116 @7238 has 47 MA's), (118, 7247), (148, 7370), (153, 7385), (156, 7403), (160, 7433), (161, 7439), (166, 7466), (172, 7490), (175, 7493),



Gene: Samaymay\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Samaymay\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: SassyCat97\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for SassyCat97\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Schadenfreude\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Schadenfreude\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Schueller\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Schueller\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Scoot17C\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Scoot17C\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Scrick\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Scrick\_7:

(40, 3753), (Start: 44 @3768 has 3 MA's), (49, 3783), (52, 3792), (55, 3813), (68, 3873), (Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (113, 4014), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (167, 4257), (168, 4260), (170, 4266), (186, 4341),

Gene: Sejanus\_6 Start: 3671, Stop: 4078, Start Num: 97

Candidate Starts for Sejanus\_6:

(87, 3638), (Start: 97 @3671 has 4 MA's), (113, 3716), (Start: 117 @3734 has 6 MA's), (119, 3743), (122, 3761), (123, 3764), (127, 3779), (154, 3878), (156, 3893), (159, 3908), (165, 3953), (168, 3962), (170, 3968), (188, 4043),

Gene: Selr12\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Selr12\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (113, 4013), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Serendipitous\_9 Start: 6319, Stop: 6720, Start Num: 105

Candidate Starts for Serendipitous\_9:

(Start: 105 @6319 has 11 MA's), (113, 6346), (123, 6394), (137, 6442), (144, 6478), (150, 6493), (157, 6526), (158, 6535), (161, 6559), (189, 6691), (190, 6697),

Gene: Serendipity\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Serendipity\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Serpentine\_007 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Serpentine\_007:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Sheila\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Sheila\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: ShiVal\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for ShiVal\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Sigman\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Sigman\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Simielle\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Simielle\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: SirJeffery\_9 Start: 6267, Stop: 6668, Start Num: 105

Candidate Starts for SirJeffery\_9:

(Start: 105 @6267 has 11 MA's), (113, 6294), (Start: 116 @6306 has 47 MA's), (123, 6342), (137, 6390), (150, 6441), (157, 6474), (158, 6483), (161, 6507), (189, 6639), (190, 6645),

Gene: Skippy\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Skippy\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Slatt\_7 Start: 3967, Stop: 4413, Start Num: 96

Candidate Starts for Slatt\_7:

(Start: 69 @3880 has 7 MA's), (Start: 96 @3967 has 238 MA's), (127, 4078), (158, 4204), (161, 4228), (166, 4255), (168, 4261), (170, 4267), (186, 4342),

Gene: SlippinJimmy\_10 Start: 6711, Stop: 7046, Start Num: 116

Candidate Starts for SlippinJimmy\_10:

(Start: 116 @6711 has 47 MA's), (129, 6753), (132, 6765), (137, 6780), (140, 6798), (157, 6855), (168, 6921), (175, 6942), (183, 6978), (186, 6990), (190, 7026),

Gene: Soile\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Soile\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (113, 4012), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (168, 4258), (170, 4264), (186, 4339),

Gene: Solosis\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Solosis\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Sophia\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Sophia\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Soto\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Soto\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (167, 4253), (168, 4256), (170, 4262), (186, 4337),

Gene: Sour\_10 Start: 6612, Stop: 6938, Start Num: 121

Candidate Starts for Sour\_10:

(Start: 117 @6600 has 6 MA's), (Start: 121 @6612 has 1 MA's), (124, 6624), (126, 6630), (131, 6648), (132, 6651), (134, 6657), (135, 6660), (140, 6684), (150, 6711), (151, 6717), (162, 6780), (178, 6837), (189, 6906),

Gene: Spartan300\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Spartan300\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Squid\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Squid\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Squiggle\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Squiggle\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: StAugustine\_14 Start: 8961, Stop: 9371, Start Num: 102

Candidate Starts for StAugustine\_14:

(14, 8484), (18, 8511), (20, 8535), (22, 8550), (23, 8556), (25, 8589), (31, 8670), (37, 8718), (41, 8736), (53, 8778), (58, 8802), (65, 8832), (83, 8904), (86, 8919), (102, 8961), (Start: 116 @9012 has 47 MA's), (147, 9144), (160, 9207), (161, 9213), (171, 9261),

Gene: Stinger\_6 Start: 4739, Stop: 5161, Start Num: 101

Candidate Starts for Stinger\_6:

(Start: 101 @4739 has 27 MA's), (Start: 108 @4757 has 1 MA's), (Start: 109 @4763 has 2 MA's), (Start: 116 @4790 has 47 MA's), (138, 4880), (144, 4910), (153, 4937), (154, 4940), (157, 4958), (161, 4991), (175, 5045), (186, 5093), (189, 5123),

Gene: StinkyVeggy\_10 Start: 6414, Stop: 6836, Start Num: 105

Candidate Starts for StinkyVeggy\_10:

(Start: 105 @6414 has 11 MA's), (111, 6435), (113, 6441), (Start: 117 @6459 has 6 MA's), (137, 6537), (148, 6585), (157, 6621), (158, 6630), (161, 6654), (168, 6687), (174, 6726), (176, 6732), (190, 6813),

Gene: Struggle\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Struggle\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Suffolk\_7 Start: 3964, Stop: 4410, Start Num: 96

Candidate Starts for Suffolk\_7:

(Start: 69 @3877 has 7 MA's), (Start: 96 @3964 has 238 MA's), (127, 4075), (158, 4201), (161, 4225), (166, 4252), (168, 4258), (170, 4264),

Gene: Suigeneris\_9 Start: 6267, Stop: 6668, Start Num: 105

Candidate Starts for Suigeneris\_9:

(Start: 105 @6267 has 11 MA's), (113, 6294), (Start: 116 @6306 has 47 MA's), (123, 6342), (137, 6390), (150, 6441), (157, 6474), (158, 6483), (161, 6507), (189, 6639), (190, 6645),

Gene: Surely\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Surely\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Swiphy\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Swiphy\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (167, 4256), (168, 4259), (170, 4265), (186, 4340),

Gene: Swish\_7 Start: 3879, Stop: 4412, Start Num: 69

Candidate Starts for Swish\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: SynergyX\_10 Start: 5950, Stop: 6285, Start Num: 116

Candidate Starts for SynergyX\_10:

(Start: 116 @5950 has 47 MA's), (129, 5992), (132, 6004), (137, 6019), (140, 6037), (157, 6094), (168, 6160), (175, 6181), (183, 6217), (186, 6229), (190, 6265),

Gene: TA17A\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for TA17A\_11:

(74, 7225), (78, 7234), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (151, 7477), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: TPA2\_16 Start: 7599, Stop: 7940, Start Num: 116

Candidate Starts for TPA2\_16:

(Start: 95 @7536 has 1 MA's), (Start: 116 @7599 has 47 MA's), (129, 7644), (131, 7653), (132, 7656), (135, 7665), (140, 7689), (150, 7716), (161, 7782), (168, 7815), (185, 7878), (189, 7914), (191, 7929), (193, 7935),

Gene: TallGrassMM\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for TallGrassMM\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Taptic\_5 Start: 2882, Stop: 3286, Start Num: 101

Candidate Starts for Taptic\_5:

(Start: 101 @2882 has 27 MA's), (107, 2897), (113, 2921), (Start: 121 @2951 has 1 MA's), (145, 3044), (162, 3128), (170, 3161), (178, 3185), (179, 3191), (189, 3251),

Gene: Telesworld\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Telesworld\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Thonko\_6 Start: 3289, Stop: 3702, Start Num: 98

Candidate Starts for Thonko\_6:

(59, 3148), (Start: 98 @3289 has 1 MA's), (115, 3340), (Start: 116 @3343 has 47 MA's), (118, 3352), (153, 3490), (160, 3538), (161, 3544), (163, 3556), (166, 3571), (168, 3577), (181, 3619), (182, 3628),

Gene: Thora\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Thora\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: ThreeOh3D2\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for ThreeOh3D2\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Timmi\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Timmi\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Tinciduntolum\_12 Start: 7479, Stop: 7817, Start Num: 120

Candidate Starts for Tinciduntolum\_12:

(74, 7341), (78, 7350), (91, 7392), (93, 7398), (Start: 120 @7479 has 32 MA's), (123, 7494), (134, 7533), (140, 7560), (146, 7578), (150, 7587), (152, 7596), (155, 7611), (157, 7617), (180, 7722), (182, 7734), (190, 7788),

Gene: TomBombadil\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for TomBombadil\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Tomlarah\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Tomlarah\_7:

(40, 3752), (Start: 44 @3767 has 3 MA's), (49, 3782), (52, 3791), (55, 3812), (68, 3872), (Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Toni\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Toni\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266),

Gene: Tooj\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Tooj\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263),

Gene: Tres\_11 Start: 7363, Stop: 7701, Start Num: 120

Candidate Starts for Tres\_11:

(74, 7225), (78, 7234), (93, 7282), (Start: 120 @7363 has 32 MA's), (123, 7378), (134, 7417), (140, 7444), (146, 7462), (150, 7471), (152, 7480), (155, 7495), (157, 7501), (180, 7606), (182, 7618), (190, 7672),

Gene: True\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for True\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Trypo\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Trypo\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Tydolla\_10 Start: 6711, Stop: 7046, Start Num: 116

Candidate Starts for Tydolla\_10:

(Start: 116 @6711 has 47 MA's), (129, 6753), (132, 6765), (137, 6780), (140, 6798), (157, 6855), (168, 6921), (175, 6942), (183, 6978), (186, 6990), (190, 7026),

Gene: TyrionL\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for TyrionL\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: UAch1\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for UAch1\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: UncleHowie\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for UncleHowie\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Usavi\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Usavi\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Vaishali24\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Vaishali24\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Valjean\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Valjean\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Vaticameos\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Vaticameos\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Veritas\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Veritas\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Vincenzo\_9 Start: 6977, Stop: 7429, Start Num: 89

Candidate Starts for Vincenzo\_9:

(Start: 89 @6977 has 1 MA's), (Start: 101 @7007 has 27 MA's), (Start: 108 @7025 has 1 MA's), (141, 7160), (143, 7175), (161, 7259), (162, 7265), (168, 7292), (170, 7298), (176, 7316),

Gene: VioletZ\_8 Start: 6302, Stop: 6721, Start Num: 101

Candidate Starts for VioletZ\_8:

(5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (19, 5894), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (41, 6101), (51, 6131), (52, 6137), (54, 6146), (57, 6164), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: Virapocalypse\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Virapocalypse\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263),

Gene: Virgeve\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Virgeve\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Vista\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Vista\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Vivaldi\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Vivaldi\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: Vortex\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Vortex\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Waleliano\_8 Start: 6302, Stop: 6721, Start Num: 101

Candidate Starts for Waleliano\_8:

(5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (18, 5879), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (39, 6095), (41, 6101), (51, 6131), (52, 6137), (54, 6146), (67, 6191), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: Wallhey\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Wallhey\_7:

(40, 3749), (Start: 44 @3764 has 3 MA's), (49, 3779), (52, 3788), (55, 3809), (68, 3869), (Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (113, 4010), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Waterdiva\_7 Start: 3966, Stop: 4412, Start Num: 96

Candidate Starts for Waterdiva\_7:

(Start: 69 @3879 has 7 MA's), (Start: 96 @3966 has 238 MA's), (127, 4077), (158, 4203), (161, 4227), (166, 4254), (168, 4260), (170, 4266), (186, 4341),

Gene: Weher20\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for Weher20\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: West99\_11 Start: 7480, Stop: 7818, Start Num: 120

Candidate Starts for West99\_11:

(74, 7342), (78, 7351), (91, 7393), (93, 7399), (Start: 120 @7480 has 32 MA's), (123, 7495), (134, 7534), (140, 7561), (146, 7579), (150, 7588), (152, 7597), (155, 7612), (157, 7618), (180, 7723), (182, 7735), (190, 7789),

Gene: Windsor\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Windsor\_7:

(40, 3750), (Start: 44 @3765 has 3 MA's), (49, 3780), (52, 3789), (55, 3810), (68, 3870), (Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (113, 4011), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (167, 4254), (168, 4257), (170, 4263), (186, 4338),

Gene: Wooper\_9 Start: 6416, Stop: 6754, Start Num: 117

Candidate Starts for Wooper\_9:

(77, 6293), (84, 6311), (92, 6338), (99, 6359), (106, 6371), (112, 6392), (Start: 117 @6416 has 6 MA's), (122, 6434), (129, 6455), (132, 6467), (134, 6473), (140, 6500), (162, 6599), (168, 6626), (180, 6665), (189, 6725), (191, 6740),

Gene: Xavier\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Xavier\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Yago84\_6 Start: 4755, Stop: 5090, Start Num: 117

Candidate Starts for Yago84\_6:

(Start: 117 @4755 has 6 MA's), (Start: 121 @4767 has 1 MA's), (126, 4785), (129, 4794), (132, 4806), (134, 4812), (160, 4923), (163, 4941), (168, 4962), (189, 5061),



Gene: Yahalom\_10 Start: 5950, Stop: 6285, Start Num: 116

Candidate Starts for Yahalom\_10:

(Start: 116 @5950 has 47 MA's), (129, 5992), (132, 6004), (137, 6019), (140, 6037), (157, 6094), (168, 6160), (175, 6181), (183, 6217), (186, 6229), (190, 6265),

Gene: Yinz\_10 Start: 5976, Stop: 6311, Start Num: 116

Candidate Starts for Yinz\_10:

(Start: 116 @5976 has 47 MA's), (129, 6018), (132, 6030), (137, 6045), (140, 6063), (157, 6120), (168, 6186), (175, 6207), (183, 6243), (186, 6255), (190, 6291),

Gene: Yoshand\_7 Start: 3963, Stop: 4409, Start Num: 96

Candidate Starts for Yoshand\_7:

(Start: 69 @3876 has 7 MA's), (Start: 96 @3963 has 238 MA's), (127, 4074), (158, 4200), (161, 4224), (166, 4251), (168, 4257), (170, 4263), (186, 4338),

Gene: YouGoGlencoco\_7 Start: 3962, Stop: 4408, Start Num: 96

Candidate Starts for YouGoGlencoco\_7:

(Start: 69 @3875 has 7 MA's), (Start: 96 @3962 has 238 MA's), (127, 4073), (158, 4199), (161, 4223), (166, 4250), (168, 4256), (170, 4262), (186, 4337),

Gene: Zaider\_8 Start: 4195, Stop: 4641, Start Num: 96

Candidate Starts for Zaider\_8:

(Start: 69 @4108 has 7 MA's), (Start: 96 @4195 has 238 MA's), (127, 4306), (158, 4432), (161, 4456), (166, 4483), (168, 4489), (170, 4495), (186, 4570),

Gene: Zelda\_7 Start: 3965, Stop: 4411, Start Num: 96

Candidate Starts for Zelda\_7:

(Start: 69 @3878 has 7 MA's), (Start: 96 @3965 has 238 MA's), (127, 4076), (158, 4202), (161, 4226), (166, 4253), (168, 4259), (170, 4265), (186, 4340),

Gene: Zemanar\_9 Start: 6302, Stop: 6721, Start Num: 101

Candidate Starts for Zemanar\_9:

(5, 5774), (7, 5789), (8, 5792), (10, 5822), (12, 5849), (15, 5858), (16, 5864), (17, 5870), (19, 5894), (26, 5984), (27, 6008), (29, 6020), (38, 6086), (41, 6101), (51, 6131), (52, 6137), (54, 6146), (57, 6164), (Start: 69 @6206 has 7 MA's), (72, 6221), (76, 6236), (Start: 79 @6242 has 1 MA's), (80, 6245), (Start: 101 @6302 has 27 MA's), (Start: 108 @6320 has 1 MA's), (Start: 109 @6326 has 2 MA's), (110, 6332), (Start: 116 @6353 has 47 MA's), (123, 6389), (138, 6443), (161, 6554), (162, 6560), (166, 6581), (175, 6608), (180, 6626), (185, 6650), (186, 6656),

Gene: Zenteno07\_12 Start: 5148, Stop: 5579, Start Num: 95

Candidate Starts for Zenteno07\_12:

(50, 4974), (Start: 95 @5148 has 1 MA's), (Start: 96 @5154 has 238 MA's), (113, 5199), (149, 5343), (166, 5439), (180, 5484), (186, 5514),

Gene: Zonia\_7 Start: 3961, Stop: 4407, Start Num: 96

Candidate Starts for Zonia\_7:

(Start: 69 @3874 has 7 MA's), (Start: 96 @3961 has 238 MA's), (113, 4009), (158, 4198), (161, 4222), (166, 4249), (167, 4252), (168, 4255), (170, 4261), (186, 4336),