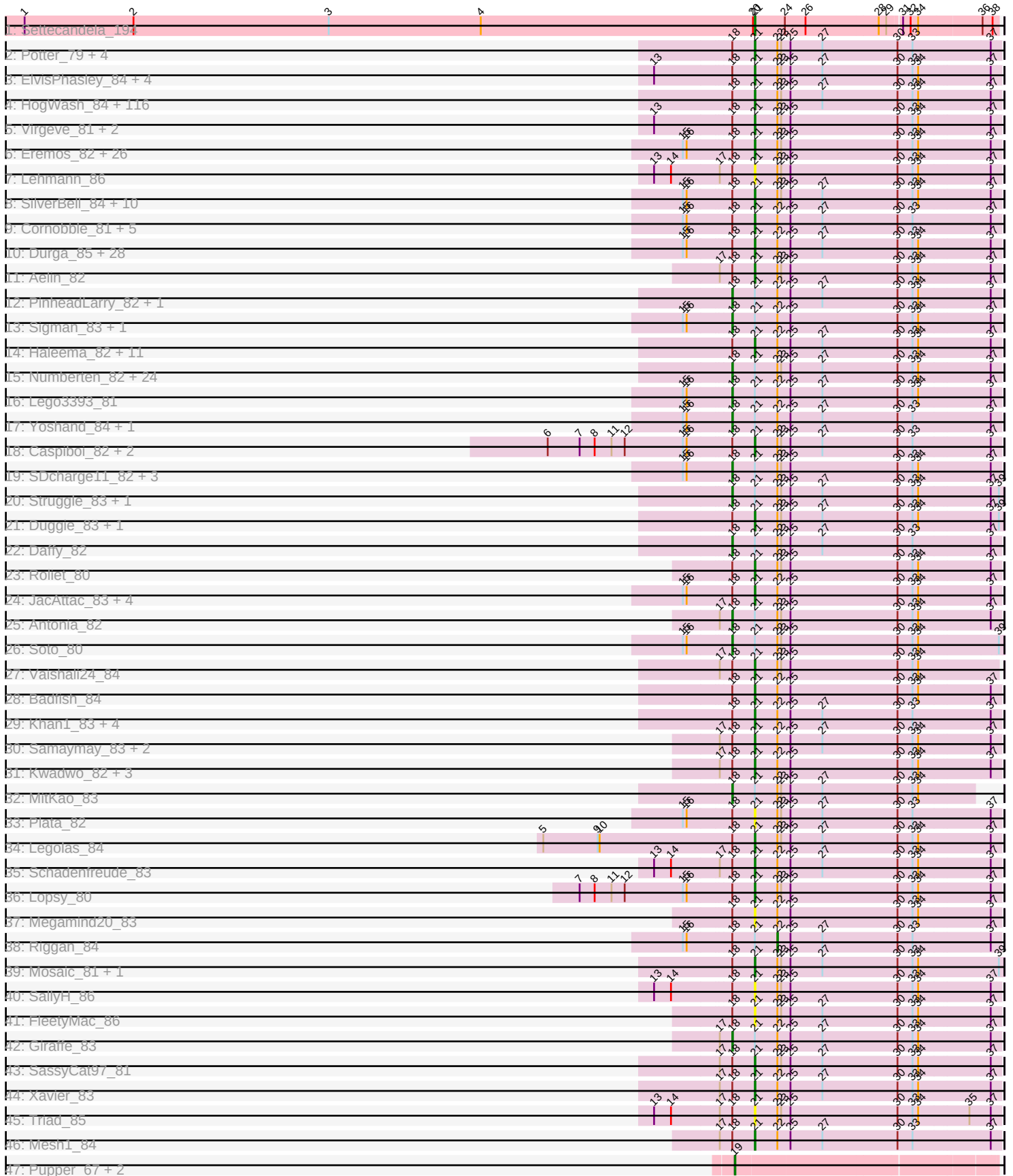


# Pham 262740



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 262740 Report

This analysis was run 02/07/26 on database version 634.

Pham number 262740 has 303 members, 28 are drafts.

Phages represented in each track:

- Track 1 : Settecandela\_194
- Track 2 : Potter\_79, Jiraiya\_84, Fringe\_87, Windsor\_83, Kloppinator\_83
- Track 3 : ElvisPhasley\_84, RedMaple\_83, Eugenia\_85, DolOn\_87, Nathan\_84
- Track 4 : HogWash\_84, Cosmolli16\_85, Anderson\_85, TyrionL\_83, Andre\_85, HenryJackson\_84, LeeLot\_82, Phipps\_82, Squiggle\_82, Lumine\_84, Serendipity\_83, Mulan\_82, Emiris\_85, Aonishiki\_85, Ashraf\_84, Jillium\_84, Slatt\_83, DonSanchon\_79, Chah\_85, Hocus\_81, Cannibal\_84, ImtiyazSitla\_84, Toni\_83, Etaye\_82, HSavage\_81, Doddsville\_81, OliverWalter\_83, Labeouficaum\_83, Mecca\_83, Fozzie\_81, Childish\_83, Derpp\_83, Frankicide\_82, Lulumae\_80, Orfeu\_82, Oosterbaan\_83, Flake\_85, CharlieGBrown\_81, JDog\_82, Maskar\_84, MelsMeow\_82, AbsoluteMadLad\_82, Skippy\_84, Selr12\_84, PhrodoBaggins\_85, Spartan300\_82, Cher\_83, Buckeye\_83, Zaider\_84, DuchessDung\_81, Adriana\_83, Orwigg\_82, Gareth\_83, ProfessorX\_81, GeneCoco\_84, Virapocalypse\_84, Zelda\_83, LuckyMarjie\_80, Grand2040\_81, Swiphy\_85, Burr\_83, UncleHowie\_80, Bluephacebaby\_82, Mesmerelda\_82, Larson\_85, ABU\_82, JakeO\_84, Melc17\_80, Keitherie\_86, LostAndPhound\_82, Morty\_84, Thora\_82, DoesntMatter\_80, Scoot17C\_84, ShadowBud\_84, Scrick\_82, Freya\_80, KingTut\_74, FugateOSU\_83, Chute\_83, YouGoGlencoco\_83, HighStump\_84, PG1\_82, Vortex\_82, Mutante\_84, Kahve\_84, Mana\_81, Magic8\_82, Fang\_84, FremontTroll\_81, Dati\_80, Kimbrough\_84, Omniscient\_84, Orion\_82, JangoPhett\_81, Placalicious\_82, Waterdiva\_84, Jesabah\_85, ThreeOh3D2\_85, Trypo\_84, Gophee\_83, Simielle\_82, Maru\_83, UAch1\_84, PhatCats2014\_83, PhatLouie\_85, Dice\_82, Charles1\_84, Timmi\_82, Matalotodo\_82, True\_81, Weher20\_80, Nyala\_82, Chuni\_84, Kwksand96\_84, Brilliant\_86, Murdoc\_80
- Track 5 : Virgeve\_81, PImatters\_81, BlacksBerry\_83
- Track 6 : Eremos\_82, Gwilliam\_84, Carthage\_84, Dingo\_80, Boehler\_82, Robyn\_85, Inverness\_81, Roscoe\_83, Basato\_82, Manad\_82, Chipette\_82, Usavi\_84, AltPhacts\_81, Hamish\_80, MiniBoss\_80, TooFast2Furius\_85, CheetO\_80, Crownjwl\_81, Horchata\_80, Iridessa\_85, Sheila\_79, RedRaider89\_85, Riverton\_82, KingVeVeVe\_81, Newman\_81, Chunky\_83, Mikota\_80
- Track 7 : Lehmann\_86
- Track 8 : SilverBell\_84, Gwennie1\_82, Podrick\_82, Beaglebox\_80, Nicole21\_84, DirtJuice\_83, Olive\_81, Lulwa\_80, Pops\_81, Happabalu\_81, Telesworld\_81
- Track 9 : Cornobble\_81, Pherdinand\_84, BlackStallion\_82, Thunderbird\_83, Pacifista\_82, Swish\_84
- Track 10 : Durga\_85, BatteryCK\_81, Inchworm\_84, Hartsy\_82, AngelCake\_82, Oline\_82, Kailash\_81, Phleuron\_81, Pinkman\_83, Zonia\_84, Longacauda\_84,

Wallhey\_84, Ricotta\_83, PallasAthena\_84, Vista\_82, Vivaldi\_83, Soile\_84,  
 PhenghisKhan\_83, Aleia\_82, Apizium\_82, Veritas\_82, MichaelPhcott\_81,  
 BlueHusk\_84, DelRivs\_81, LasagnaCat\_84, Mag7\_81, PhrankReynolds\_82,  
 Schueller\_81, Phergie\_83  
 • Track 11 : Aelin\_82  
 • Track 12 : PinheadLarry\_82, Chorkpop\_84  
 • Track 13 : Sigman\_83, Pipsqueak\_80  
 • Track 14 : Haleema\_82, Bishoperium\_83, Phunky\_81, Olak\_82, Altwerkus\_81,  
 SirBeauregard\_84, Surely\_83, Lasso\_82, Sophia\_81, Chaelin\_84, Haimas\_81,  
 TomBombadil\_83  
 • Track 15 : Numberten\_82, Mcshane\_82, Quisquiliae\_85, Held\_81, ShiVal\_81,  
 Banjo\_80, Phamished\_83, FriarPreacher\_81, TomlaraH\_84, Craff\_85, Squid\_82,  
 Cornbread\_82, DaddyDaniels\_86, Hetaeria\_83, Jiminy\_83, Coletti\_86, Morgushi\_81,  
 LemonSlice\_83, Piglet\_0083, Roy17\_81, Vaticameos\_80, Cobra\_83, Gyarad\_0082,  
 Puhltonio\_80, Serpentine\_0084  
 • Track 16 : Lego3393\_81  
 • Track 17 : Yoshand\_84, FluffyNinja\_84  
 • Track 18 : Caspiroi\_82, TallGrassMM\_82, Solosis\_81  
 • Track 19 : SDcharge11\_82, KLucky39\_81, Suffolk\_80, Nacho\_0086  
 • Track 20 : Struggle\_83, Rimu\_83  
 • Track 21 : Duggie\_83, CampRoach\_84  
 • Track 22 : Daffy\_82  
 • Track 23 : Roliet\_80  
 • Track 24 : JacAttac\_83, Iridoclysis\_82, Dione\_81, BoogieWoogie\_82, Katniss\_85  
 • Track 25 : Antonia\_82  
 • Track 26 : Soto\_80  
 • Track 27 : Vaishali24\_84  
 • Track 28 : Badfish\_84  
 • Track 29 : Khan1\_83, LeiMonet\_85, KlimbOn\_82, MrPhizzler\_86, MRabcd\_83  
 • Track 30 : Samaymay\_83, CamL\_83, QueenBeane\_83  
 • Track 31 : Kwadwo\_82, Tooj\_80, Valjean\_82, Megatron\_84  
 • Track 32 : MitKao\_83  
 • Track 33 : Plata\_82  
 • Track 34 : Legolas\_84  
 • Track 35 : Schadenfreude\_83  
 • Track 36 : Lopsy\_80  
 • Track 37 : Megamind20\_83  
 • Track 38 : Riggan\_84  
 • Track 39 : Mosaic\_81, Phareon\_81  
 • Track 40 : SallyH\_86  
 • Track 41 : FleetyMac\_86  
 • Track 42 : Giraffe\_83  
 • Track 43 : SassyCat97\_81  
 • Track 44 : Xavier\_83  
 • Track 45 : Triad\_85  
 • Track 46 : Mesh1\_84  
 • Track 47 : Pupper\_67, SCentae\_66, CherryTomatoes\_68

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

The start number called the most often in the published annotations is 21, it was called in 228 of the 275 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU\_82, AbsoluteMadLad\_82, Adriana\_83, Aelin\_82, Aleia\_82, AltPhacts\_81, Altwerkus\_81, Anderson\_85, Andre\_85, AngelCake\_82, Aonishiki\_85, Apizium\_82, Ashraf\_84, Badfish\_84, Basato\_82, BatteryCK\_81, Beaglebox\_80, Bishoperium\_83, BlackStallion\_82, BlacksBerry\_83, BlueHusk\_84, Bluephacebaby\_82, Boehler\_82, BoogieWoogie\_82, Brilliant\_86, Buckeye\_83, Burr\_83, CamL\_83, CampRoach\_84, Cannibal\_84, Carthage\_84, Caspiboi\_82, Chaelin\_84, Chah\_85, Charles1\_84, CharlieGBrown\_81, CheetO\_80, Cher\_83, Childish\_83, Chipette\_82, Chuni\_84, Chunky\_83, Chute\_83, Cornobble\_81, Cosmolli16\_85, Crownjwl\_81, Dati\_80, DelRivs\_81, Derpp\_83, Dice\_82, Dingo\_80, Dione\_81, DirtJuice\_83, Doddsville\_81, DoesntMatter\_80, DolOn\_87, DonSanchon\_79, DuchessDung\_81, Duggie\_83, Durga\_85, ElvisPhasley\_84, Emiris\_85, Eremos\_82, Etaye\_82, Eugenia\_85, Fang\_84, Flake\_85, FleetyMac\_86, Fozzie\_81, Frankicide\_82, FremontTroll\_81, Freya\_80, Fringe\_87, FugateOSU\_83, Gareth\_83, GeneCoco\_84, Gophee\_83, Grand2040\_81, Gwennie1\_82, Gwilliam\_84, HSavage\_81, Haimas\_81, Haleema\_82, Hamish\_80, Happabalu\_81, Hartsy\_82, HenryJackson\_84, HighStump\_84, Hocus\_81, HogWash\_84, Horchata\_80, ImtiyazSitla\_84, Inchworm\_84, Inverness\_81, Iridessa\_85, Iridoclysis\_82, JDog\_82, JacAttac\_83, JakeO\_84, JangoPhett\_81, Jesabah\_85, Jillium\_84, Jiraiya\_84, Kahve\_84, Kailash\_81, Katniss\_85, Keitherie\_86, Khan1\_83, Kimbrough\_84, KingTut\_74, KingVeVeVe\_81, KlimbOn\_82, Kloppinator\_83, Kwadwo\_82, Kwksand96\_84, Labeouficaum\_83, Larson\_85, LasagnaCat\_84, Lasso\_82, LeeLot\_82, Legolas\_84, Lehmann\_86, LeiMonet\_85, Longacauda\_84, Lopsy\_80, LostAndPhound\_82, LuckyMarije\_80, Lulumae\_80, Lulwa\_80, Lumine\_84, MRabcd\_83, Mag7\_81, Magic8\_82, Mana\_81, Manad\_82, Maru\_83, Maskar\_84, Matalotodo\_82, Mecca\_83, Megamind20\_83, Megatron\_84, Melc17\_80, MelsMeow\_82, Mesh1\_84, Mesmerelda\_82, MichaelPhcott\_81, Mikota\_80, MiniBoss\_80, Morty\_84, Mosaic\_81, MrPhizzler\_86, Mulan\_82, Murdoc\_80, Mutante\_84, Nathan\_84, Newman\_81, Nicole21\_84, Nyala\_82, Olak\_82, Oline\_82, Olive\_81, OliverWalter\_83, Omniscient\_84, Oosterbaan\_83, Orfeu\_82, Orion\_82, Orwigg\_82, PG1\_82, Pacifista\_82, PallasAthena\_84, Phareon\_81, PhatCats2014\_83, PhatLouie\_85, PhenghisKhan\_83, Pherdinand\_84, Phergie\_83, Phipps\_82, Phleuron\_81, PhrankReynolds\_82, PhrodoBaggins\_85, Phunky\_81, Pinkman\_83, Placalicious\_82, Plata\_82, Plmatters\_81, Podrick\_82, Pops\_81, Potter\_79, ProfessorX\_81, QueenBeane\_83, RedMaple\_83, RedRaider89\_85, Ricotta\_83, Riverton\_82, Robyn\_85, Roliet\_80, Roscoe\_83, SallyH\_86, Samaymay\_83, SassyCat97\_81, Schadenfreude\_83, Schueller\_81, Scoot17C\_84, Scrick\_82, Selr12\_84, Serendipity\_83, Settecandela\_194, ShadowBud\_84, Sheila\_79, SilverBell\_84, Simielle\_82, SirBeauregard\_84, Skippy\_84, Slatt\_83, Soile\_84, Solosis\_81, Sophia\_81, Spartan300\_82, Squiggle\_82, Surely\_83, Swiphy\_85, Swish\_84, TallGrassMM\_82, Telesworld\_81, Thora\_82, ThreeOh3D2\_85, Thunderbird\_83, Timmi\_82, TomBombadil\_83, Toni\_83, TooFast2Furius\_85, Tooj\_80, Triad\_85, True\_81, Trypo\_84, TyronL\_83, UAch1\_84, UncleHowie\_80, Usavi\_84, Vaishali24\_84, Valjean\_82, Veritas\_82, Virapocalypse\_84, Virgeve\_81, Vista\_82, Vivaldi\_83, Vortex\_82, Wallhey\_84, Waterdiva\_84, Weher20\_80, Windsor\_83, Xavier\_83, YouGoGlencoco\_83, Zaider\_84, Zelda\_83, Zonia\_84,

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

- Antonia\_82, Banjo\_80, Chorkpop\_84, Cobra\_83, Coletti\_86, Cornbread\_82, Craff\_85, DaddyDaniels\_86, Daffy\_82, FluffyNinja\_84, FriarPreacher\_81, Giraffe\_83,

Gyarad\_0082, Held\_81, Hetaeria\_83, Jiminy\_83, KLUcky39\_81, Lego3393\_81, LemonSlice\_83, Mcshane\_82, MitKao\_83, Morgushi\_81, Nacho\_0086, Numberten\_82, Phamished\_83, Piglet\_0083, PinheadLarry\_82, Pipsqueak\_80, Puhltonio\_80, Quisquilliae\_85, Riggan\_84, Rimu\_83, Roy17\_81, SDcharge11\_82, Serpentine\_0084, ShiVal\_81, Sigman\_83, Soto\_80, Squid\_82, Struggle\_83, Suffolk\_80, Tomlarah\_84, Vaticameos\_80, Yoshand\_84,

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

- CherryTomatoes\_68, Pupper\_67, SCentae\_66,

### Summary by start number:

Start 18:

- Found in 299 of 303 ( 98.7% ) of genes in pham
- Manual Annotations of this start: 43 of 275
- Called 14.4% of time when present
- Phage (with cluster) where this start called: Antonia\_82 (B1), Banjo\_80 (B1), Chorkpop\_84 (B1), Cobra\_83 (B1), Coletti\_86 (B1), Cornbread\_82 (B1), Craff\_85 (B1), DaddyDaniels\_86 (B1), Daffy\_82 (B1), FluffyNinja\_84 (B1), FriarPreacher\_81 (B1), Giraffe\_83 (B1), Gyarad\_0082 (B1), Held\_81 (B1), Hetaeria\_83 (B1), Jiminy\_83 (B1), KLUcky39\_81 (B1), Lego3393\_81 (B1), LemonSlice\_83 (B1), Mcshane\_82 (B1), MitKao\_83 (B1), Morgushi\_81 (B1), Nacho\_0086 (B1), Numberten\_82 (B1), Phamished\_83 (B1), Piglet\_0083 (B1), PinheadLarry\_82 (B1), Pipsqueak\_80 (B1), Puhltonio\_80 (B1), Quisquilliae\_85 (B1), Rimu\_83 (B1), Roy17\_81 (B1), SDcharge11\_82 (B1), Serpentine\_0084 (B1), ShiVal\_81 (B1), Sigman\_83 (B1), Soto\_80 (B1), Squid\_82 (B1), Struggle\_83 (B1), Suffolk\_80 (B1), Tomlarah\_84 (B1), Vaticameos\_80 (B1), Yoshand\_84 (B1),

Start 19:

- Found in 3 of 303 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 3 of 275
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_68 (DO), Pupper\_67 (DO), SCentae\_66 (DO),

Start 21:

- Found in 300 of 303 ( 99.0% ) of genes in pham
- Manual Annotations of this start: 228 of 275
- Called 85.3% of time when present
- Phage (with cluster) where this start called: ABU\_82 (B1), AbsoluteMadLad\_82 (B1), Adriana\_83 (B1), Aelin\_82 (B1), Aleia\_82 (B1), AltPhacts\_81 (B1), Altwerkus\_81 (B1), Anderson\_85 (B1), Andre\_85 (B1), AngelCake\_82 (B1), Aonishiki\_85 (B1), Apizium\_82 (B1), Ashraf\_84 (B1), Badfish\_84 (B1), Basato\_82 (B1), BatteryCK\_81 (B1), Beaglebox\_80 (B1), Bishoperium\_83 (B1), BlackStallion\_82 (B1), BlacksBerry\_83 (B1), BlueHusk\_84 (B1), Bluephacebaby\_82 (B1), Boehler\_82 (B1), BoogieWoogie\_82 (B1), Brilliant\_86 (B1), Buckeye\_83 (B1), Burr\_83 (B1), CamL\_83 (B1), CampRoach\_84 (B1), Cannibal\_84 (B1), Carthage\_84 (B1), CaspiBoi\_82 (B1), Chaelin\_84 (B1), Chah\_85 (B1), Charles1\_84 (B1), CharlieGBrown\_81 (B1), CheetO\_80 (B1), Cher\_83 (B1), Childish\_83 (B1), Chipette\_82 (B1), Chuni\_84 (B1), Chunky\_83 (B1), Chute\_83 (B1), Cornobble\_81 (B1), Cosmolli16\_85 (B1), Crownjwl\_81 (B1), Dati\_80 (B1), DelRivs\_81 (B1), Derpp\_83 (B1), Dice\_82 (B1), Dingo\_80 (B1), Dione\_81 (B1), DirtJuice\_83 (B1), Doddsville\_81 (B1), DoesntMatter\_80 (B1), DolOn\_87 (B1), DonSancho\_79 (B1), DuchessDung\_81

(B1), Duggie\_83 (B1), Durga\_85 (B1), ElvisPhasley\_84 (B1), Emiris\_85 (B1), Eremos\_82 (B1), Etaye\_82 (B1), Eugenia\_85 (B1), Fang\_84 (B1), Flake\_85 (B1), FleetyMac\_86 (B1), Fozzie\_81 (B1), Frankicide\_82 (B1), FremontTroll\_81 (B1), Freya\_80 (B1), Fringe\_87 (B1), FugateOSU\_83 (B1), Gareth\_83 (B1), GeneCoco\_84 (B1), Gophee\_83 (B1), Grand2040\_81 (B1), Gwennie1\_82 (B1), Gwilliam\_84 (B1), HSavage\_81 (B1), Haimas\_81 (B1), Haleema\_82 (B1), Hamish\_80 (B1), Happabalu\_81 (B1), Hartsy\_82 (B1), HenryJackson\_84 (B1), HighStump\_84 (B1), Hocus\_81 (B1), HogWash\_84 (B1), Horchata\_80 (B1), ImtiyazSitla\_84 (B1), Inchworm\_84 (B1), Inverness\_81 (B1), Iridessa\_85 (B1), Iridoclysis\_82 (B1), JDog\_82 (B1), JacAttac\_83 (B1), JakeO\_84 (B1), JangoPhett\_81 (B1), Jesabah\_85 (B1), Jillium\_84 (B1), Jiraiya\_84 (B1), Kahve\_84 (B1), Kailash\_81 (B1), Katniss\_85 (B1), Keitherie\_86 (B1), Khan1\_83 (B1), Kimbrough\_84 (B1), KingTut\_74 (B1), KingVeVeVe\_81 (B1), KlimbOn\_82 (B1), Kloppinator\_83 (B1), Kwadwo\_82 (B1), Kwksand96\_84 (B1), Labeouficaum\_83 (B1), Larson\_85 (B1), LasagnaCat\_84 (B1), Lasso\_82 (B1), LeeLot\_82 (B1), Legolas\_84 (B1), Lehmann\_86 (B1), LeiMonet\_85 (B1), Longacauda\_84 (B1), Lopsy\_80 (B1), LostAndPhound\_82 (B1), LuckyMarjie\_80 (B1), Lulumae\_80 (B1), Lulwa\_80 (B1), Lumine\_84 (B1), MRabcd\_83 (B1), Mag7\_81 (B1), Magic8\_82 (B1), Mana\_81 (B1), Manad\_82 (B1), Maru\_83 (B1), Maskar\_84 (B1), Matalotodo\_82 (B1), Mecca\_83 (B1), Megamind20\_83 (B1), Megatron\_84 (B1), Melc17\_80 (B1), MelsMeow\_82 (B1), Mesh1\_84 (B1), Mesmerelda\_82 (B1), MichaelPhcott\_81 (B1), Mikota\_80 (B1), MiniBoss\_80 (B1), Morty\_84 (B1), Mosaic\_81 (B1), MrPhizzler\_86 (B1), Mulan\_82 (B1), Murdoc\_80 (B1), Mutante\_84 (B1), Nathan\_84 (B1), Newman\_81 (B1), Nicole21\_84 (B1), Nyala\_82 (B1), Olak\_82 (B1), Oline\_82 (B1), Olive\_81 (B1), OliverWalter\_83 (B1), Omniscient\_84 (B1), Oosterbaan\_83 (B1), Orfeu\_82 (B1), Orion\_82 (B1), Orwigg\_82 (B1), PG1\_82 (B1), Pacifista\_82 (B1), PallasAthena\_84 (B1), Phareon\_81 (B1), PhatCats2014\_83 (B1), PhatLouie\_85 (B1), PhenghisKhan\_83 (B1), Pherdinand\_84 (B1), Phergie\_83 (B1), Phipps\_82 (B1), Phleuron\_81 (B1), PhrankReynolds\_82 (B1), PhrodoBaggins\_85 (B1), Phunky\_81 (B1), Pinkman\_83 (B1), Placalicious\_82 (B1), Plata\_82 (B1), Plmatters\_81 (B1), Podrick\_82 (B1), Pops\_81 (B1), Potter\_79 (B1), ProfessorX\_81 (B1), QueenBeane\_83 (B1), RedMaple\_83 (B1), RedRaider89\_85 (B1), Ricotta\_83 (B1), Riverton\_82 (B1), Robyn\_85 (B1), Roliet\_80 (B1), Roscoe\_83 (B1), SallyH\_86 (B1), Samaymay\_83 (B1), SassyCat97\_81 (B1), Schadenfreude\_83 (B1), Schueller\_81 (B1), Scoot17C\_84 (B1), Scrick\_82 (B1), Selr12\_84 (B1), Serendipity\_83 (B1), Settecandela\_194 (AA), ShadowBud\_84 (B1), Sheila\_79 (B1), SilverBell\_84 (B1), Simielle\_82 (B1), SirBeauregard\_84 (B1), Skippy\_84 (B1), Slatt\_83 (B1), Soile\_84 (B1), Solosis\_81 (B1), Sophia\_81 (B1), Spartan300\_82 (B1), Squiggle\_82 (B1), Surely\_83 (B1), Swiphy\_85 (B1), Swish\_84 (B1), TallGrassMM\_82 (B1), Telesworld\_81 (B1), Thora\_82 (B1), ThreeOh3D2\_85 (B1), Thunderbird\_83 (B1), Timmi\_82 (B1), TomBombadil\_83 (B1), Toni\_83 (B1), TooFast2Furius\_85 (B1), Tooj\_80 (B1), Triad\_85 (B1), True\_81 (B1), Trypo\_84 (B1), TyrionL\_83 (B1), UAch1\_84 (B1), UncleHowie\_80 (B1), Usavi\_84 (B1), Vaishali24\_84 (B1), Valjean\_82 (B1), Veritas\_82 (B1), Virapocalypse\_84 (B1), Virgeve\_81 (B1), Vista\_82 (B1), Vivaldi\_83 (B1), Vortex\_82 (B1), Wallhey\_84 (B1), Waterdiva\_84 (B1), Weher20\_80 (B1), Windsor\_83 (B1), Xavier\_83 (B1), YouGoGlencoco\_83 (B1), Zaider\_84 (B1), Zelda\_83 (B1), Zonia\_84 (B1),

Start 22:

- Found in 299 of 303 ( 98.7% ) of genes in pham
- Manual Annotations of this start: 1 of 275
- Called 0.3% of time when present
- Phage (with cluster) where this start called: Riggan\_84 (B1),

## Summary by clusters:

There are 3 clusters represented in this pham: AA, DO, B1,

Info for manual annotations of cluster AA:

- Start number 21 was manually annotated 1 time for cluster AA.

Info for manual annotations of cluster B1:

- Start number 18 was manually annotated 43 times for cluster B1.
- Start number 21 was manually annotated 227 times for cluster B1.
- Start number 22 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster DO:

- Start number 19 was manually annotated 3 times for cluster DO.

## Gene Information:

Gene: ABU\_82 Start: 63035, Stop: 62649, Start Num: 21

Candidate Starts for ABU\_82:

(Start: 18 @63071 has 43 MA's), (Start: 21 @63035 has 228 MA's), (Start: 22 @62999 has 1 MA's), (23, 62993), (25, 62978), (27, 62927), (30, 62807), (33, 62783), (34, 62774), (37, 62663),

Gene: AbsoluteMadLad\_82 Start: 62989, Stop: 62603, Start Num: 21

Candidate Starts for AbsoluteMadLad\_82:

(Start: 18 @63025 has 43 MA's), (Start: 21 @62989 has 228 MA's), (Start: 22 @62953 has 1 MA's), (23, 62947), (25, 62932), (27, 62881), (30, 62761), (33, 62737), (34, 62728), (37, 62617),

Gene: Adriana\_83 Start: 63551, Stop: 63165, Start Num: 21

Candidate Starts for Adriana\_83:

(Start: 18 @63587 has 43 MA's), (Start: 21 @63551 has 228 MA's), (Start: 22 @63515 has 1 MA's), (23, 63509), (25, 63494), (27, 63443), (30, 63323), (33, 63299), (34, 63290), (37, 63179),

Gene: Aelin\_82 Start: 62493, Stop: 62107, Start Num: 21

Candidate Starts for Aelin\_82:

(17, 62547), (Start: 18 @62529 has 43 MA's), (Start: 21 @62493 has 228 MA's), (Start: 22 @62457 has 1 MA's), (23, 62451), (25, 62436), (30, 62265), (33, 62241), (34, 62232), (37, 62121),

Gene: Aleia\_82 Start: 62677, Stop: 62291, Start Num: 21

Candidate Starts for Aleia\_82:

(15, 62788), (16, 62782), (Start: 18 @62713 has 43 MA's), (Start: 21 @62677 has 228 MA's), (Start: 22 @62641 has 1 MA's), (25, 62620), (27, 62569), (30, 62449), (33, 62425), (34, 62416), (37, 62305),

Gene: AltPhacts\_81 Start: 62253, Stop: 61867, Start Num: 21

Candidate Starts for AltPhacts\_81:

(15, 62364), (16, 62358), (Start: 18 @62289 has 43 MA's), (Start: 21 @62253 has 228 MA's), (Start: 22 @62217 has 1 MA's), (23, 62211), (25, 62196), (30, 62025), (33, 62001), (34, 61992), (37, 61881),

Gene: Altwerkus\_81 Start: 62365, Stop: 61979, Start Num: 21

Candidate Starts for Altwerkus\_81:

(Start: 18 @62401 has 43 MA's), (Start: 21 @62365 has 228 MA's), (Start: 22 @62329 has 1 MA's), (25, 62308), (27, 62257), (30, 62137), (33, 62113), (34, 62104), (37, 61993),

Gene: Anderson\_85 Start: 62911, Stop: 62525, Start Num: 21

Candidate Starts for Anderson\_85:

(Start: 18 @62947 has 43 MA's), (Start: 21 @62911 has 228 MA's), (Start: 22 @62875 has 1 MA's), (23, 62869), (25, 62854), (27, 62803), (30, 62683), (33, 62659), (34, 62650), (37, 62539),

Gene: Andre\_85 Start: 62933, Stop: 62547, Start Num: 21

Candidate Starts for Andre\_85:

(Start: 18 @62969 has 43 MA's), (Start: 21 @62933 has 228 MA's), (Start: 22 @62897 has 1 MA's), (23, 62891), (25, 62876), (27, 62825), (30, 62705), (33, 62681), (34, 62672), (37, 62561),

Gene: AngelCake\_82 Start: 62659, Stop: 62273, Start Num: 21

Candidate Starts for AngelCake\_82:

(15, 62770), (16, 62764), (Start: 18 @62695 has 43 MA's), (Start: 21 @62659 has 228 MA's), (Start: 22 @62623 has 1 MA's), (25, 62602), (27, 62551), (30, 62431), (33, 62407), (34, 62398), (37, 62287),

Gene: Antonia\_82 Start: 62573, Stop: 62151, Start Num: 18

Candidate Starts for Antonia\_82:

(17, 62591), (Start: 18 @62573 has 43 MA's), (Start: 21 @62537 has 228 MA's), (Start: 22 @62501 has 1 MA's), (23, 62495), (25, 62480), (30, 62309), (33, 62285), (34, 62276), (37, 62165),

Gene: Aonishiki\_85 Start: 62846, Stop: 62460, Start Num: 21

Candidate Starts for Aonishiki\_85:

(Start: 18 @62882 has 43 MA's), (Start: 21 @62846 has 228 MA's), (Start: 22 @62810 has 1 MA's), (23, 62804), (25, 62789), (27, 62738), (30, 62618), (33, 62594), (34, 62585), (37, 62474),

Gene: Apizium\_82 Start: 62192, Stop: 61806, Start Num: 21

Candidate Starts for Apizium\_82:

(15, 62303), (16, 62297), (Start: 18 @62228 has 43 MA's), (Start: 21 @62192 has 228 MA's), (Start: 22 @62156 has 1 MA's), (25, 62135), (27, 62084), (30, 61964), (33, 61940), (34, 61931), (37, 61820),

Gene: Ashraf\_84 Start: 63024, Stop: 62638, Start Num: 21

Candidate Starts for Ashraf\_84:

(Start: 18 @63060 has 43 MA's), (Start: 21 @63024 has 228 MA's), (Start: 22 @62988 has 1 MA's), (23, 62982), (25, 62967), (27, 62916), (30, 62796), (33, 62772), (34, 62763), (37, 62652),

Gene: Badfish\_84 Start: 63215, Stop: 62829, Start Num: 21

Candidate Starts for Badfish\_84:

(Start: 18 @63251 has 43 MA's), (Start: 21 @63215 has 228 MA's), (Start: 22 @63179 has 1 MA's), (25, 63158), (30, 62987), (33, 62963), (34, 62954), (37, 62843),

Gene: Banjo\_80 Start: 62517, Stop: 62095, Start Num: 18

Candidate Starts for Banjo\_80:

(Start: 18 @62517 has 43 MA's), (Start: 21 @62481 has 228 MA's), (Start: 22 @62445 has 1 MA's), (23, 62439), (25, 62424), (27, 62373), (30, 62253), (33, 62229), (34, 62220), (37, 62109),

Gene: Basato\_82 Start: 62945, Stop: 62559, Start Num: 21

Candidate Starts for Basato\_82:

(15, 63056), (16, 63050), (Start: 18 @62981 has 43 MA's), (Start: 21 @62945 has 228 MA's), (Start: 22 @62909 has 1 MA's), (23, 62903), (25, 62888), (30, 62717), (33, 62693), (34, 62684), (37, 62573),

Gene: BatteryCK\_81 Start: 62471, Stop: 62085, Start Num: 21

Candidate Starts for BatteryCK\_81:



(15, 62582), (16, 62576), (Start: 18 @62507 has 43 MA's), (Start: 21 @62471 has 228 MA's), (Start: 22 @62435 has 1 MA's), (25, 62414), (27, 62363), (30, 62243), (33, 62219), (34, 62210), (37, 62099),

Gene: Beaglebox\_80 Start: 62603, Stop: 62223, Start Num: 21

Candidate Starts for Beaglebox\_80:

(15, 62714), (16, 62708), (Start: 18 @62639 has 43 MA's), (Start: 21 @62603 has 228 MA's), (Start: 22 @62567 has 1 MA's), (23, 62561), (25, 62546), (27, 62495), (30, 62375), (33, 62351), (34, 62342), (37, 62237),

Gene: Bishoperium\_83 Start: 63051, Stop: 62665, Start Num: 21

Candidate Starts for Bishoperium\_83:

(Start: 18 @63087 has 43 MA's), (Start: 21 @63051 has 228 MA's), (Start: 22 @63015 has 1 MA's), (25, 62994), (27, 62943), (30, 62823), (33, 62799), (34, 62790), (37, 62679),

Gene: BlackStallion\_82 Start: 62900, Stop: 62514, Start Num: 21

Candidate Starts for BlackStallion\_82:

(15, 63011), (16, 63005), (Start: 18 @62936 has 43 MA's), (Start: 21 @62900 has 228 MA's), (Start: 22 @62864 has 1 MA's), (25, 62843), (27, 62792), (30, 62672), (33, 62648), (37, 62528),

Gene: BlacksBerry\_83 Start: 62426, Stop: 62040, Start Num: 21

Candidate Starts for BlacksBerry\_83:

(13, 62582), (Start: 18 @62462 has 43 MA's), (Start: 21 @62426 has 228 MA's), (Start: 22 @62390 has 1 MA's), (23, 62384), (25, 62369), (30, 62198), (33, 62174), (34, 62165), (37, 62054),

Gene: BlueHusk\_84 Start: 62723, Stop: 62337, Start Num: 21

Candidate Starts for BlueHusk\_84:

(15, 62834), (16, 62828), (Start: 18 @62759 has 43 MA's), (Start: 21 @62723 has 228 MA's), (Start: 22 @62687 has 1 MA's), (25, 62666), (27, 62615), (30, 62495), (33, 62471), (34, 62462), (37, 62351),

Gene: Bluephacebaby\_82 Start: 63084, Stop: 62698, Start Num: 21

Candidate Starts for Bluephacebaby\_82:

(Start: 18 @63120 has 43 MA's), (Start: 21 @63084 has 228 MA's), (Start: 22 @63048 has 1 MA's), (23, 63042), (25, 63027), (27, 62976), (30, 62856), (33, 62832), (34, 62823), (37, 62712),

Gene: Boehler\_82 Start: 62874, Stop: 62488, Start Num: 21

Candidate Starts for Boehler\_82:

(15, 62985), (16, 62979), (Start: 18 @62910 has 43 MA's), (Start: 21 @62874 has 228 MA's), (Start: 22 @62838 has 1 MA's), (23, 62832), (25, 62817), (30, 62646), (33, 62622), (34, 62613), (37, 62502),

Gene: BoogieWoogie\_82 Start: 62495, Stop: 62109, Start Num: 21

Candidate Starts for BoogieWoogie\_82:

(15, 62606), (16, 62600), (Start: 18 @62531 has 43 MA's), (Start: 21 @62495 has 228 MA's), (Start: 22 @62459 has 1 MA's), (25, 62438), (30, 62267), (33, 62243), (34, 62234), (37, 62123),

Gene: Brilliant\_86 Start: 63064, Stop: 62678, Start Num: 21

Candidate Starts for Brilliant\_86:

(Start: 18 @63100 has 43 MA's), (Start: 21 @63064 has 228 MA's), (Start: 22 @63028 has 1 MA's), (23, 63022), (25, 63007), (27, 62956), (30, 62836), (33, 62812), (34, 62803), (37, 62692),

Gene: Buckeye\_83 Start: 63602, Stop: 63216, Start Num: 21

Candidate Starts for Buckeye\_83:

(Start: 18 @63638 has 43 MA's), (Start: 21 @63602 has 228 MA's), (Start: 22 @63566 has 1 MA's), (23, 63560), (25, 63545), (27, 63494), (30, 63374), (33, 63350), (34, 63341), (37, 63230),

Gene: Burr\_83 Start: 62536, Stop: 62150, Start Num: 21

Candidate Starts for Burr\_83:

(Start: 18 @62572 has 43 MA's), (Start: 21 @62536 has 228 MA's), (Start: 22 @62500 has 1 MA's), (23, 62494), (25, 62479), (27, 62428), (30, 62308), (33, 62284), (34, 62275), (37, 62164),

Gene: CamL\_83 Start: 62836, Stop: 62450, Start Num: 21

Candidate Starts for CamL\_83:

(17, 62890), (Start: 18 @62872 has 43 MA's), (Start: 21 @62836 has 228 MA's), (Start: 22 @62800 has 1 MA's), (25, 62779), (27, 62728), (30, 62608), (33, 62584), (34, 62575), (37, 62464),

Gene: CampRoach\_84 Start: 62932, Stop: 62540, Start Num: 21

Candidate Starts for CampRoach\_84:

(Start: 18 @62968 has 43 MA's), (Start: 21 @62932 has 228 MA's), (Start: 22 @62896 has 1 MA's), (23, 62890), (25, 62875), (27, 62824), (30, 62704), (33, 62680), (34, 62671), (37, 62560), (39, 62548),

Gene: Cannibal\_84 Start: 62938, Stop: 62552, Start Num: 21

Candidate Starts for Cannibal\_84:

(Start: 18 @62974 has 43 MA's), (Start: 21 @62938 has 228 MA's), (Start: 22 @62902 has 1 MA's), (23, 62896), (25, 62881), (27, 62830), (30, 62710), (33, 62686), (34, 62677), (37, 62566),

Gene: Carthage\_84 Start: 62605, Stop: 62219, Start Num: 21

Candidate Starts for Carthage\_84:

(15, 62716), (16, 62710), (Start: 18 @62641 has 43 MA's), (Start: 21 @62605 has 228 MA's), (Start: 22 @62569 has 1 MA's), (23, 62563), (25, 62548), (30, 62377), (33, 62353), (34, 62344), (37, 62233),

Gene: Caspiboi\_82 Start: 62770, Stop: 62384, Start Num: 21

Candidate Starts for Caspiboi\_82:

(6, 63097), (7, 63046), (8, 63022), (11, 62995), (12, 62974), (15, 62881), (16, 62875), (Start: 18 @62806 has 43 MA's), (Start: 21 @62770 has 228 MA's), (Start: 22 @62734 has 1 MA's), (23, 62728), (25, 62713), (27, 62662), (30, 62542), (33, 62518), (37, 62398),

Gene: Chaelin\_84 Start: 63066, Stop: 62680, Start Num: 21

Candidate Starts for Chaelin\_84:

(Start: 18 @63102 has 43 MA's), (Start: 21 @63066 has 228 MA's), (Start: 22 @63030 has 1 MA's), (25, 63009), (27, 62958), (30, 62838), (33, 62814), (34, 62805), (37, 62694),

Gene: Chah\_85 Start: 62635, Stop: 62249, Start Num: 21

Candidate Starts for Chah\_85:

(Start: 18 @62671 has 43 MA's), (Start: 21 @62635 has 228 MA's), (Start: 22 @62599 has 1 MA's), (23, 62593), (25, 62578), (27, 62527), (30, 62407), (33, 62383), (34, 62374), (37, 62263),

Gene: Charles1\_84 Start: 62844, Stop: 62458, Start Num: 21

Candidate Starts for Charles1\_84:

(Start: 18 @62880 has 43 MA's), (Start: 21 @62844 has 228 MA's), (Start: 22 @62808 has 1 MA's), (23, 62802), (25, 62787), (27, 62736), (30, 62616), (33, 62592), (34, 62583), (37, 62472),

Gene: CharlieGBrown\_81 Start: 62567, Stop: 62181, Start Num: 21

Candidate Starts for CharlieGBrown\_81:

(Start: 18 @62603 has 43 MA's), (Start: 21 @62567 has 228 MA's), (Start: 22 @62531 has 1 MA's), (23, 62525), (25, 62510), (27, 62459), (30, 62339), (33, 62315), (34, 62306), (37, 62195),

Gene: CheetO\_80 Start: 62940, Stop: 62554, Start Num: 21

Candidate Starts for CheetO\_80:

(15, 63051), (16, 63045), (Start: 18 @62976 has 43 MA's), (Start: 21 @62940 has 228 MA's), (Start: 22 @62904 has 1 MA's), (23, 62898), (25, 62883), (30, 62712), (33, 62688), (34, 62679), (37, 62568),

Gene: Cher\_83 Start: 63038, Stop: 62652, Start Num: 21

Candidate Starts for Cher\_83:

(Start: 18 @63074 has 43 MA's), (Start: 21 @63038 has 228 MA's), (Start: 22 @63002 has 1 MA's), (23, 62996), (25, 62981), (27, 62930), (30, 62810), (33, 62786), (34, 62777), (37, 62666),

Gene: CherryTomatoes\_68 Start: 23562, Stop: 23954, Start Num: 19

Candidate Starts for CherryTomatoes\_68:

(Start: 19 @23562 has 3 MA's),

Gene: Childish\_83 Start: 63229, Stop: 62843, Start Num: 21

Candidate Starts for Childish\_83:

(Start: 18 @63265 has 43 MA's), (Start: 21 @63229 has 228 MA's), (Start: 22 @63193 has 1 MA's), (23, 63187), (25, 63172), (27, 63121), (30, 63001), (33, 62977), (34, 62968), (37, 62857),

Gene: Chipette\_82 Start: 62765, Stop: 62379, Start Num: 21

Candidate Starts for Chipette\_82:

(15, 62876), (16, 62870), (Start: 18 @62801 has 43 MA's), (Start: 21 @62765 has 228 MA's), (Start: 22 @62729 has 1 MA's), (23, 62723), (25, 62708), (30, 62537), (33, 62513), (34, 62504), (37, 62393),

Gene: Chorkpop\_84 Start: 62728, Stop: 62306, Start Num: 18

Candidate Starts for Chorkpop\_84:

(Start: 18 @62728 has 43 MA's), (Start: 21 @62692 has 228 MA's), (Start: 22 @62656 has 1 MA's), (25, 62635), (27, 62584), (30, 62464), (33, 62440), (34, 62431), (37, 62320),

Gene: Chuni\_84 Start: 63278, Stop: 62892, Start Num: 21

Candidate Starts for Chuni\_84:

(Start: 18 @63314 has 43 MA's), (Start: 21 @63278 has 228 MA's), (Start: 22 @63242 has 1 MA's), (23, 63236), (25, 63221), (27, 63170), (30, 63050), (33, 63026), (34, 63017), (37, 62906),

Gene: Chunky\_83 Start: 62536, Stop: 62150, Start Num: 21

Candidate Starts for Chunky\_83:

(15, 62647), (16, 62641), (Start: 18 @62572 has 43 MA's), (Start: 21 @62536 has 228 MA's), (Start: 22 @62500 has 1 MA's), (23, 62494), (25, 62479), (30, 62308), (33, 62284), (34, 62275), (37, 62164),

Gene: Chute\_83 Start: 63231, Stop: 62845, Start Num: 21

Candidate Starts for Chute\_83:

(Start: 18 @63267 has 43 MA's), (Start: 21 @63231 has 228 MA's), (Start: 22 @63195 has 1 MA's), (23, 63189), (25, 63174), (27, 63123), (30, 63003), (33, 62979), (34, 62970), (37, 62859),

Gene: Cobra\_83 Start: 63098, Stop: 62676, Start Num: 18

Candidate Starts for Cobra\_83:

(Start: 18 @63098 has 43 MA's), (Start: 21 @63062 has 228 MA's), (Start: 22 @63026 has 1 MA's), (23, 63020), (25, 63005), (27, 62954), (30, 62834), (33, 62810), (34, 62801), (37, 62690),

Gene: Coletti\_86 Start: 63623, Stop: 63201, Start Num: 18

Candidate Starts for Coletti\_86:

(Start: 18 @63623 has 43 MA's), (Start: 21 @63587 has 228 MA's), (Start: 22 @63551 has 1 MA's), (23, 63545), (25, 63530), (27, 63479), (30, 63359), (33, 63335), (34, 63326), (37, 63215),

Gene: Cornbread\_82 Start: 62755, Stop: 62333, Start Num: 18

Candidate Starts for Cornbread\_82:

(Start: 18 @62755 has 43 MA's), (Start: 21 @62719 has 228 MA's), (Start: 22 @62683 has 1 MA's), (23, 62677), (25, 62662), (27, 62611), (30, 62491), (33, 62467), (34, 62458), (37, 62347),

Gene: Cornobble\_81 Start: 62529, Stop: 62143, Start Num: 21

Candidate Starts for Cornobble\_81:

(15, 62640), (16, 62634), (Start: 18 @62565 has 43 MA's), (Start: 21 @62529 has 228 MA's), (Start: 22 @62493 has 1 MA's), (25, 62472), (27, 62421), (30, 62301), (33, 62277), (37, 62157),

Gene: Cosmolli16\_85 Start: 63407, Stop: 63021, Start Num: 21

Candidate Starts for Cosmolli16\_85:

(Start: 18 @63443 has 43 MA's), (Start: 21 @63407 has 228 MA's), (Start: 22 @63371 has 1 MA's), (23, 63365), (25, 63350), (27, 63299), (30, 63179), (33, 63155), (34, 63146), (37, 63035),

Gene: Craff\_85 Start: 63486, Stop: 63064, Start Num: 18

Candidate Starts for Craff\_85:

(Start: 18 @63486 has 43 MA's), (Start: 21 @63450 has 228 MA's), (Start: 22 @63414 has 1 MA's), (23, 63408), (25, 63393), (27, 63342), (30, 63222), (33, 63198), (34, 63189), (37, 63078),

Gene: Crownjwl\_81 Start: 62715, Stop: 62329, Start Num: 21

Candidate Starts for Crownjwl\_81:

(15, 62826), (16, 62820), (Start: 18 @62751 has 43 MA's), (Start: 21 @62715 has 228 MA's), (Start: 22 @62679 has 1 MA's), (23, 62673), (25, 62658), (30, 62487), (33, 62463), (34, 62454), (37, 62343),

Gene: DaddyDaniels\_86 Start: 63219, Stop: 62797, Start Num: 18

Candidate Starts for DaddyDaniels\_86:

(Start: 18 @63219 has 43 MA's), (Start: 21 @63183 has 228 MA's), (Start: 22 @63147 has 1 MA's), (23, 63141), (25, 63126), (27, 63075), (30, 62955), (33, 62931), (34, 62922), (37, 62811),

Gene: Daffy\_82 Start: 62713, Stop: 62291, Start Num: 18

Candidate Starts for Daffy\_82:

(Start: 18 @62713 has 43 MA's), (Start: 21 @62677 has 228 MA's), (Start: 22 @62641 has 1 MA's), (23, 62635), (25, 62620), (27, 62569), (30, 62449), (33, 62425), (37, 62305),

Gene: Dati\_80 Start: 62861, Stop: 62475, Start Num: 21

Candidate Starts for Dati\_80:

(Start: 18 @62897 has 43 MA's), (Start: 21 @62861 has 228 MA's), (Start: 22 @62825 has 1 MA's), (23, 62819), (25, 62804), (27, 62753), (30, 62633), (33, 62609), (34, 62600), (37, 62489),

Gene: DelRivs\_81 Start: 62489, Stop: 62103, Start Num: 21

Candidate Starts for DelRivs\_81:

(15, 62600), (16, 62594), (Start: 18 @62525 has 43 MA's), (Start: 21 @62489 has 228 MA's), (Start: 22 @62453 has 1 MA's), (25, 62432), (27, 62381), (30, 62261), (33, 62237), (34, 62228), (37, 62117),

Gene: Derpp\_83 Start: 62600, Stop: 62214, Start Num: 21

Candidate Starts for Derpp\_83:

(Start: 18 @62636 has 43 MA's), (Start: 21 @62600 has 228 MA's), (Start: 22 @62564 has 1 MA's), (23, 62558), (25, 62543), (27, 62492), (30, 62372), (33, 62348), (34, 62339), (37, 62228),

Gene: Dice\_82 Start: 62522, Stop: 62136, Start Num: 21

Candidate Starts for Dice\_82:

(Start: 18 @62558 has 43 MA's), (Start: 21 @62522 has 228 MA's), (Start: 22 @62486 has 1 MA's), (23, 62480), (25, 62465), (27, 62414), (30, 62294), (33, 62270), (34, 62261), (37, 62150),

Gene: Dingo\_80 Start: 62242, Stop: 61856, Start Num: 21

Candidate Starts for Dingo\_80:

(15, 62353), (16, 62347), (Start: 18 @62278 has 43 MA's), (Start: 21 @62242 has 228 MA's), (Start: 22 @62206 has 1 MA's), (23, 62200), (25, 62185), (30, 62014), (33, 61990), (34, 61981), (37, 61870),

Gene: Dione\_81 Start: 62241, Stop: 61855, Start Num: 21

Candidate Starts for Dione\_81:

(15, 62352), (16, 62346), (Start: 18 @62277 has 43 MA's), (Start: 21 @62241 has 228 MA's), (Start: 22 @62205 has 1 MA's), (25, 62184), (30, 62013), (33, 61989), (34, 61980), (37, 61869),

Gene: DirtJuice\_83 Start: 62981, Stop: 62607, Start Num: 21

Candidate Starts for DirtJuice\_83:

(15, 63092), (16, 63086), (Start: 18 @63017 has 43 MA's), (Start: 21 @62981 has 228 MA's), (Start: 22 @62957 has 1 MA's), (23, 62951), (25, 62936), (27, 62885), (30, 62765), (33, 62741), (34, 62732), (37, 62621),

Gene: Doddsville\_81 Start: 62682, Stop: 62296, Start Num: 21

Candidate Starts for Doddsville\_81:

(Start: 18 @62718 has 43 MA's), (Start: 21 @62682 has 228 MA's), (Start: 22 @62646 has 1 MA's), (23, 62640), (25, 62625), (27, 62574), (30, 62454), (33, 62430), (34, 62421), (37, 62310),

Gene: DoesntMatter\_80 Start: 62518, Stop: 62132, Start Num: 21

Candidate Starts for DoesntMatter\_80:

(Start: 18 @62554 has 43 MA's), (Start: 21 @62518 has 228 MA's), (Start: 22 @62482 has 1 MA's), (23, 62476), (25, 62461), (27, 62410), (30, 62290), (33, 62266), (34, 62257), (37, 62146),

Gene: DolOn\_87 Start: 63968, Stop: 63582, Start Num: 21

Candidate Starts for DolOn\_87:

(13, 64124), (Start: 18 @64004 has 43 MA's), (Start: 21 @63968 has 228 MA's), (Start: 22 @63932 has 1 MA's), (23, 63926), (25, 63911), (27, 63860), (30, 63740), (33, 63716), (34, 63707), (37, 63596),

Gene: DonSanchon\_79 Start: 62200, Stop: 61814, Start Num: 21

Candidate Starts for DonSanchon\_79:

(Start: 18 @62236 has 43 MA's), (Start: 21 @62200 has 228 MA's), (Start: 22 @62164 has 1 MA's), (23, 62158), (25, 62143), (27, 62092), (30, 61972), (33, 61948), (34, 61939), (37, 61828),

Gene: DuchessDung\_81 Start: 62198, Stop: 61812, Start Num: 21

Candidate Starts for DuchessDung\_81:

(Start: 18 @62234 has 43 MA's), (Start: 21 @62198 has 228 MA's), (Start: 22 @62162 has 1 MA's), (23, 62156), (25, 62141), (27, 62090), (30, 61970), (33, 61946), (34, 61937), (37, 61826),

Gene: Duggie\_83 Start: 62824, Stop: 62432, Start Num: 21

Candidate Starts for Duggie\_83:

(Start: 18 @62860 has 43 MA's), (Start: 21 @62824 has 228 MA's), (Start: 22 @62788 has 1 MA's), (23, 62782), (25, 62767), (27, 62716), (30, 62596), (33, 62572), (34, 62563), (37, 62452), (39, 62440),

Gene: Durga\_85 Start: 63305, Stop: 62919, Start Num: 21

Candidate Starts for Durga\_85:

(15, 63416), (16, 63410), (Start: 18 @63341 has 43 MA's), (Start: 21 @63305 has 228 MA's), (Start: 22 @63269 has 1 MA's), (25, 63248), (27, 63197), (30, 63077), (33, 63053), (34, 63044), (37, 62933),

Gene: ElvisPhasley\_84 Start: 63848, Stop: 63462, Start Num: 21

Candidate Starts for ElvisPhasley\_84:

(13, 64004), (Start: 18 @63884 has 43 MA's), (Start: 21 @63848 has 228 MA's), (Start: 22 @63812 has 1 MA's), (23, 63806), (25, 63791), (27, 63740), (30, 63620), (33, 63596), (34, 63587), (37, 63476),

Gene: Emiris\_85 Start: 63212, Stop: 62826, Start Num: 21

Candidate Starts for Emiris\_85:

(Start: 18 @63248 has 43 MA's), (Start: 21 @63212 has 228 MA's), (Start: 22 @63176 has 1 MA's), (23, 63170), (25, 63155), (27, 63104), (30, 62984), (33, 62960), (34, 62951), (37, 62840),

Gene: Eremos\_82 Start: 62903, Stop: 62517, Start Num: 21

Candidate Starts for Eremos\_82:

(15, 63014), (16, 63008), (Start: 18 @62939 has 43 MA's), (Start: 21 @62903 has 228 MA's), (Start: 22 @62867 has 1 MA's), (23, 62861), (25, 62846), (30, 62675), (33, 62651), (34, 62642), (37, 62531),

Gene: Etaye\_82 Start: 63390, Stop: 63004, Start Num: 21

Candidate Starts for Etaye\_82:

(Start: 18 @63426 has 43 MA's), (Start: 21 @63390 has 228 MA's), (Start: 22 @63354 has 1 MA's), (23, 63348), (25, 63333), (27, 63282), (30, 63162), (33, 63138), (34, 63129), (37, 63018),

Gene: Eugenia\_85 Start: 63325, Stop: 62939, Start Num: 21

Candidate Starts for Eugenia\_85:

(13, 63481), (Start: 18 @63361 has 43 MA's), (Start: 21 @63325 has 228 MA's), (Start: 22 @63289 has 1 MA's), (23, 63283), (25, 63268), (27, 63217), (30, 63097), (33, 63073), (34, 63064), (37, 62953),

Gene: Fang\_84 Start: 63033, Stop: 62647, Start Num: 21

Candidate Starts for Fang\_84:

(Start: 18 @63069 has 43 MA's), (Start: 21 @63033 has 228 MA's), (Start: 22 @62997 has 1 MA's), (23, 62991), (25, 62976), (27, 62925), (30, 62805), (33, 62781), (34, 62772), (37, 62661),

Gene: Flake\_85 Start: 62804, Stop: 62418, Start Num: 21

Candidate Starts for Flake\_85:

(Start: 18 @62840 has 43 MA's), (Start: 21 @62804 has 228 MA's), (Start: 22 @62768 has 1 MA's), (23, 62762), (25, 62747), (27, 62696), (30, 62576), (33, 62552), (34, 62543), (37, 62432),

Gene: FleetyMac\_86 Start: 62714, Stop: 62328, Start Num: 21

Candidate Starts for FleetyMac\_86:

(Start: 18 @62750 has 43 MA's), (Start: 21 @62714 has 228 MA's), (Start: 22 @62678 has 1 MA's), (23, 62672), (25, 62657), (27, 62606), (30, 62486), (33, 62462), (34, 62453), (37, 62342),

Gene: FluffyNinja\_84 Start: 62938, Stop: 62516, Start Num: 18

Candidate Starts for FluffyNinja\_84:

(15, 63013), (16, 63007), (Start: 18 @62938 has 43 MA's), (Start: 21 @62902 has 228 MA's), (Start: 22 @62866 has 1 MA's), (25, 62845), (27, 62794), (30, 62674), (33, 62650), (37, 62530),

Gene: Fozzie\_81 Start: 63229, Stop: 62843, Start Num: 21

Candidate Starts for Fozzie\_81:

(Start: 18 @63265 has 43 MA's), (Start: 21 @63229 has 228 MA's), (Start: 22 @63193 has 1 MA's), (23, 63187), (25, 63172), (27, 63121), (30, 63001), (33, 62977), (34, 62968), (37, 62857),

Gene: Frankicide\_82 Start: 62728, Stop: 62342, Start Num: 21

Candidate Starts for Frankicide\_82:

(Start: 18 @62764 has 43 MA's), (Start: 21 @62728 has 228 MA's), (Start: 22 @62692 has 1 MA's), (23, 62686), (25, 62671), (27, 62620), (30, 62500), (33, 62476), (34, 62467), (37, 62356),

Gene: FremontTroll\_81 Start: 63141, Stop: 62755, Start Num: 21

Candidate Starts for FremontTroll\_81:

(Start: 18 @63177 has 43 MA's), (Start: 21 @63141 has 228 MA's), (Start: 22 @63105 has 1 MA's), (23, 63099), (25, 63084), (27, 63033), (30, 62913), (33, 62889), (34, 62880), (37, 62769),

Gene: Freya\_80 Start: 62220, Stop: 61834, Start Num: 21

Candidate Starts for Freya\_80:

(Start: 18 @62256 has 43 MA's), (Start: 21 @62220 has 228 MA's), (Start: 22 @62184 has 1 MA's), (23, 62178), (25, 62163), (27, 62112), (30, 61992), (33, 61968), (34, 61959), (37, 61848),

Gene: FriarPreacher\_81 Start: 62637, Stop: 62215, Start Num: 18

Candidate Starts for FriarPreacher\_81:

(Start: 18 @62637 has 43 MA's), (Start: 21 @62601 has 228 MA's), (Start: 22 @62565 has 1 MA's), (23, 62559), (25, 62544), (27, 62493), (30, 62373), (33, 62349), (34, 62340), (37, 62229),

Gene: Fringe\_87 Start: 63378, Stop: 62992, Start Num: 21

Candidate Starts for Fringe\_87:

(Start: 18 @63414 has 43 MA's), (Start: 21 @63378 has 228 MA's), (Start: 22 @63342 has 1 MA's), (23, 63336), (25, 63321), (27, 63270), (30, 63150), (33, 63126), (37, 63006),

Gene: FugateOSU\_83 Start: 63662, Stop: 63276, Start Num: 21

Candidate Starts for FugateOSU\_83:

(Start: 18 @63698 has 43 MA's), (Start: 21 @63662 has 228 MA's), (Start: 22 @63626 has 1 MA's), (23, 63620), (25, 63605), (27, 63554), (30, 63434), (33, 63410), (34, 63401), (37, 63290),

Gene: Gareth\_83 Start: 63050, Stop: 62664, Start Num: 21

Candidate Starts for Gareth\_83:

(Start: 18 @63086 has 43 MA's), (Start: 21 @63050 has 228 MA's), (Start: 22 @63014 has 1 MA's), (23, 63008), (25, 62993), (27, 62942), (30, 62822), (33, 62798), (34, 62789), (37, 62678),

Gene: GeneCoco\_84 Start: 63230, Stop: 62844, Start Num: 21

Candidate Starts for GeneCoco\_84:

(Start: 18 @63266 has 43 MA's), (Start: 21 @63230 has 228 MA's), (Start: 22 @63194 has 1 MA's), (23, 63188), (25, 63173), (27, 63122), (30, 63002), (33, 62978), (34, 62969), (37, 62858),

Gene: Giraffe\_83 Start: 63091, Stop: 62669, Start Num: 18

Candidate Starts for Giraffe\_83:

(17, 63109), (Start: 18 @63091 has 43 MA's), (Start: 21 @63055 has 228 MA's), (Start: 22 @63019 has 1 MA's), (25, 62998), (27, 62947), (30, 62827), (33, 62803), (34, 62794), (37, 62683),

Gene: Gophee\_83 Start: 63041, Stop: 62655, Start Num: 21

Candidate Starts for Gophee\_83:

(Start: 18 @63077 has 43 MA's), (Start: 21 @63041 has 228 MA's), (Start: 22 @63005 has 1 MA's), (23, 62999), (25, 62984), (27, 62933), (30, 62813), (33, 62789), (34, 62780), (37, 62669),

Gene: Grand2040\_81 Start: 63019, Stop: 62633, Start Num: 21

Candidate Starts for Grand2040\_81:

(Start: 18 @63055 has 43 MA's), (Start: 21 @63019 has 228 MA's), (Start: 22 @62983 has 1 MA's), (23, 62977), (25, 62962), (27, 62911), (30, 62791), (33, 62767), (34, 62758), (37, 62647),

Gene: Gwennie1\_82 Start: 62864, Stop: 62478, Start Num: 21

Candidate Starts for Gwennie1\_82:

(15, 62975), (16, 62969), (Start: 18 @62900 has 43 MA's), (Start: 21 @62864 has 228 MA's), (Start: 22 @62828 has 1 MA's), (23, 62822), (25, 62807), (27, 62756), (30, 62636), (33, 62612), (34, 62603), (37, 62492),

Gene: Gwilliam\_84 Start: 63584, Stop: 63198, Start Num: 21

Candidate Starts for Gwilliam\_84:

(15, 63695), (16, 63689), (Start: 18 @63620 has 43 MA's), (Start: 21 @63584 has 228 MA's), (Start: 22 @63548 has 1 MA's), (23, 63542), (25, 63527), (30, 63356), (33, 63332), (34, 63323), (37, 63212),

Gene: Gyarad\_0082 Start: 62575, Stop: 62153, Start Num: 18

Candidate Starts for Gyarad\_0082:

(Start: 18 @62575 has 43 MA's), (Start: 21 @62539 has 228 MA's), (Start: 22 @62503 has 1 MA's), (23, 62497), (25, 62482), (27, 62431), (30, 62311), (33, 62287), (34, 62278), (37, 62167),

Gene: HSavage\_81 Start: 62556, Stop: 62170, Start Num: 21

Candidate Starts for HSavage\_81:

(Start: 18 @62592 has 43 MA's), (Start: 21 @62556 has 228 MA's), (Start: 22 @62520 has 1 MA's), (23, 62514), (25, 62499), (27, 62448), (30, 62328), (33, 62304), (34, 62295), (37, 62184),

Gene: Haimas\_81 Start: 62481, Stop: 62095, Start Num: 21

Candidate Starts for Haimas\_81:

(Start: 18 @62517 has 43 MA's), (Start: 21 @62481 has 228 MA's), (Start: 22 @62445 has 1 MA's), (25, 62424), (27, 62373), (30, 62253), (33, 62229), (34, 62220), (37, 62109),

Gene: Haleema\_82 Start: 62601, Stop: 62215, Start Num: 21

Candidate Starts for Haleema\_82:

(Start: 18 @62637 has 43 MA's), (Start: 21 @62601 has 228 MA's), (Start: 22 @62565 has 1 MA's), (25, 62544), (27, 62493), (30, 62373), (33, 62349), (34, 62340), (37, 62229),

Gene: Hamish\_80 Start: 62769, Stop: 62383, Start Num: 21

Candidate Starts for Hamish\_80:

(15, 62880), (16, 62874), (Start: 18 @62805 has 43 MA's), (Start: 21 @62769 has 228 MA's), (Start: 22 @62733 has 1 MA's), (23, 62727), (25, 62712), (30, 62541), (33, 62517), (34, 62508), (37, 62397),

Gene: Happabalu\_81 Start: 63695, Stop: 63309, Start Num: 21

Candidate Starts for Happabalu\_81:

(15, 63806), (16, 63800), (Start: 18 @63731 has 43 MA's), (Start: 21 @63695 has 228 MA's), (Start: 22 @63659 has 1 MA's), (23, 63653), (25, 63638), (27, 63587), (30, 63467), (33, 63443), (34, 63434), (37, 63323),

Gene: Hartsy\_82 Start: 62717, Stop: 62331, Start Num: 21

Candidate Starts for Hartsy\_82:

(15, 62828), (16, 62822), (Start: 18 @62753 has 43 MA's), (Start: 21 @62717 has 228 MA's), (Start: 22 @62681 has 1 MA's), (25, 62660), (27, 62609), (30, 62489), (33, 62465), (34, 62456), (37, 62345),

Gene: Held\_81 Start: 62535, Stop: 62113, Start Num: 18

Candidate Starts for Held\_81:

(Start: 18 @62535 has 43 MA's), (Start: 21 @62499 has 228 MA's), (Start: 22 @62463 has 1 MA's), (23, 62457), (25, 62442), (27, 62391), (30, 62271), (33, 62247), (34, 62238), (37, 62127),

Gene: HenryJackson\_84 Start: 63218, Stop: 62832, Start Num: 21



Candidate Starts for HenryJackson\_84:

(Start: 18 @63254 has 43 MA's), (Start: 21 @63218 has 228 MA's), (Start: 22 @63182 has 1 MA's), (23, 63176), (25, 63161), (27, 63110), (30, 62990), (33, 62966), (34, 62957), (37, 62846),

Gene: Hetaeria\_83 Start: 62903, Stop: 62481, Start Num: 18

Candidate Starts for Hetaeria\_83:

(Start: 18 @62903 has 43 MA's), (Start: 21 @62867 has 228 MA's), (Start: 22 @62831 has 1 MA's), (23, 62825), (25, 62810), (27, 62759), (30, 62639), (33, 62615), (34, 62606), (37, 62495),

Gene: HighStump\_84 Start: 63005, Stop: 62619, Start Num: 21

Candidate Starts for HighStump\_84:

(Start: 18 @63041 has 43 MA's), (Start: 21 @63005 has 228 MA's), (Start: 22 @62969 has 1 MA's), (23, 62963), (25, 62948), (27, 62897), (30, 62777), (33, 62753), (34, 62744), (37, 62633),

Gene: Hocus\_81 Start: 62519, Stop: 62133, Start Num: 21

Candidate Starts for Hocus\_81:

(Start: 18 @62555 has 43 MA's), (Start: 21 @62519 has 228 MA's), (Start: 22 @62483 has 1 MA's), (23, 62477), (25, 62462), (27, 62411), (30, 62291), (33, 62267), (34, 62258), (37, 62147),

Gene: HogWash\_84 Start: 63532, Stop: 63146, Start Num: 21

Candidate Starts for HogWash\_84:

(Start: 18 @63568 has 43 MA's), (Start: 21 @63532 has 228 MA's), (Start: 22 @63496 has 1 MA's), (23, 63490), (25, 63475), (27, 63424), (30, 63304), (33, 63280), (34, 63271), (37, 63160),

Gene: Horchata\_80 Start: 62695, Stop: 62309, Start Num: 21

Candidate Starts for Horchata\_80:

(15, 62806), (16, 62800), (Start: 18 @62731 has 43 MA's), (Start: 21 @62695 has 228 MA's), (Start: 22 @62659 has 1 MA's), (23, 62653), (25, 62638), (30, 62467), (33, 62443), (34, 62434), (37, 62323),

Gene: ImtiyazSitla\_84 Start: 63024, Stop: 62638, Start Num: 21

Candidate Starts for ImtiyazSitla\_84:

(Start: 18 @63060 has 43 MA's), (Start: 21 @63024 has 228 MA's), (Start: 22 @62988 has 1 MA's), (23, 62982), (25, 62967), (27, 62916), (30, 62796), (33, 62772), (34, 62763), (37, 62652),

Gene: Inchworm\_84 Start: 62891, Stop: 62505, Start Num: 21

Candidate Starts for Inchworm\_84:

(15, 63002), (16, 62996), (Start: 18 @62927 has 43 MA's), (Start: 21 @62891 has 228 MA's), (Start: 22 @62855 has 1 MA's), (25, 62834), (27, 62783), (30, 62663), (33, 62639), (34, 62630), (37, 62519),

Gene: Inverness\_81 Start: 62692, Stop: 62306, Start Num: 21

Candidate Starts for Inverness\_81:

(15, 62803), (16, 62797), (Start: 18 @62728 has 43 MA's), (Start: 21 @62692 has 228 MA's), (Start: 22 @62656 has 1 MA's), (23, 62650), (25, 62635), (30, 62464), (33, 62440), (34, 62431), (37, 62320),

Gene: Iridessa\_85 Start: 62616, Stop: 62230, Start Num: 21

Candidate Starts for Iridessa\_85:

(15, 62727), (16, 62721), (Start: 18 @62652 has 43 MA's), (Start: 21 @62616 has 228 MA's), (Start: 22 @62580 has 1 MA's), (23, 62574), (25, 62559), (30, 62388), (33, 62364), (34, 62355), (37, 62244),

Gene: Iridoclysis\_82 Start: 62782, Stop: 62396, Start Num: 21

Candidate Starts for Iridoclysis\_82:

(15, 62893), (16, 62887), (Start: 18 @62818 has 43 MA's), (Start: 21 @62782 has 228 MA's), (Start: 22 @62746 has 1 MA's), (25, 62725), (30, 62554), (33, 62530), (34, 62521), (37, 62410),

Gene: JDog\_82 Start: 63053, Stop: 62667, Start Num: 21

Candidate Starts for JDog\_82:

(Start: 18 @63089 has 43 MA's), (Start: 21 @63053 has 228 MA's), (Start: 22 @63017 has 1 MA's), (23, 63011), (25, 62996), (27, 62945), (30, 62825), (33, 62801), (34, 62792), (37, 62681),

Gene: JacAttac\_83 Start: 62496, Stop: 62110, Start Num: 21

Candidate Starts for JacAttac\_83:

(15, 62607), (16, 62601), (Start: 18 @62532 has 43 MA's), (Start: 21 @62496 has 228 MA's), (Start: 22 @62460 has 1 MA's), (25, 62439), (30, 62268), (33, 62244), (34, 62235), (37, 62124),

Gene: JakeO\_84 Start: 62781, Stop: 62395, Start Num: 21

Candidate Starts for JakeO\_84:

(Start: 18 @62817 has 43 MA's), (Start: 21 @62781 has 228 MA's), (Start: 22 @62745 has 1 MA's), (23, 62739), (25, 62724), (27, 62673), (30, 62553), (33, 62529), (34, 62520), (37, 62409),

Gene: JangoPhett\_81 Start: 62857, Stop: 62471, Start Num: 21

Candidate Starts for JangoPhett\_81:

(Start: 18 @62893 has 43 MA's), (Start: 21 @62857 has 228 MA's), (Start: 22 @62821 has 1 MA's), (23, 62815), (25, 62800), (27, 62749), (30, 62629), (33, 62605), (34, 62596), (37, 62485),

Gene: Jesabah\_85 Start: 63620, Stop: 63234, Start Num: 21

Candidate Starts for Jesabah\_85:

(Start: 18 @63656 has 43 MA's), (Start: 21 @63620 has 228 MA's), (Start: 22 @63584 has 1 MA's), (23, 63578), (25, 63563), (27, 63512), (30, 63392), (33, 63368), (34, 63359), (37, 63248),

Gene: Jillium\_84 Start: 63213, Stop: 62827, Start Num: 21

Candidate Starts for Jillium\_84:

(Start: 18 @63249 has 43 MA's), (Start: 21 @63213 has 228 MA's), (Start: 22 @63177 has 1 MA's), (23, 63171), (25, 63156), (27, 63105), (30, 62985), (33, 62961), (34, 62952), (37, 62841),

Gene: Jiminy\_83 Start: 62753, Stop: 62331, Start Num: 18

Candidate Starts for Jiminy\_83:

(Start: 18 @62753 has 43 MA's), (Start: 21 @62717 has 228 MA's), (Start: 22 @62681 has 1 MA's), (23, 62675), (25, 62660), (27, 62609), (30, 62489), (33, 62465), (34, 62456), (37, 62345),

Gene: Jiraiya\_84 Start: 62801, Stop: 62415, Start Num: 21

Candidate Starts for Jiraiya\_84:

(Start: 18 @62837 has 43 MA's), (Start: 21 @62801 has 228 MA's), (Start: 22 @62765 has 1 MA's), (23, 62759), (25, 62744), (27, 62693), (30, 62573), (33, 62549), (37, 62429),

Gene: KLUcky39\_81 Start: 62611, Stop: 62189, Start Num: 18

Candidate Starts for KLUcky39\_81:

(15, 62686), (16, 62680), (Start: 18 @62611 has 43 MA's), (Start: 21 @62575 has 228 MA's), (Start: 22 @62539 has 1 MA's), (23, 62533), (25, 62518), (30, 62347), (33, 62323), (34, 62314), (37, 62203),

Gene: Kahve\_84 Start: 63216, Stop: 62830, Start Num: 21

Candidate Starts for Kahve\_84:

(Start: 18 @63252 has 43 MA's), (Start: 21 @63216 has 228 MA's), (Start: 22 @63180 has 1 MA's), (23, 63174), (25, 63159), (27, 63108), (30, 62988), (33, 62964), (34, 62955), (37, 62844),

Gene: Kailash\_81 Start: 62915, Stop: 62529, Start Num: 21

Candidate Starts for Kailash\_81:

(15, 63026), (16, 63020), (Start: 18 @62951 has 43 MA's), (Start: 21 @62915 has 228 MA's), (Start: 22 @62879 has 1 MA's), (25, 62858), (27, 62807), (30, 62687), (33, 62663), (34, 62654), (37, 62543),

Gene: Katniss\_85 Start: 62631, Stop: 62245, Start Num: 21

Candidate Starts for Katniss\_85:

(15, 62742), (16, 62736), (Start: 18 @62667 has 43 MA's), (Start: 21 @62631 has 228 MA's), (Start: 22 @62595 has 1 MA's), (25, 62574), (30, 62403), (33, 62379), (34, 62370), (37, 62259),

Gene: Keitherie\_86 Start: 63274, Stop: 62888, Start Num: 21

Candidate Starts for Keitherie\_86:

(Start: 18 @63310 has 43 MA's), (Start: 21 @63274 has 228 MA's), (Start: 22 @63238 has 1 MA's), (23, 63232), (25, 63217), (27, 63166), (30, 63046), (33, 63022), (34, 63013), (37, 62902),

Gene: Khan1\_83 Start: 62995, Stop: 62609, Start Num: 21

Candidate Starts for Khan1\_83:

(Start: 18 @63031 has 43 MA's), (Start: 21 @62995 has 228 MA's), (Start: 22 @62959 has 1 MA's), (25, 62938), (27, 62887), (30, 62767), (33, 62743), (37, 62623),

Gene: Kimbrough\_84 Start: 63095, Stop: 62709, Start Num: 21

Candidate Starts for Kimbrough\_84:

(Start: 18 @63131 has 43 MA's), (Start: 21 @63095 has 228 MA's), (Start: 22 @63059 has 1 MA's), (23, 63053), (25, 63038), (27, 62987), (30, 62867), (33, 62843), (34, 62834), (37, 62723),

Gene: KingTut\_74 Start: 59255, Stop: 58869, Start Num: 21

Candidate Starts for KingTut\_74:

(Start: 18 @59291 has 43 MA's), (Start: 21 @59255 has 228 MA's), (Start: 22 @59219 has 1 MA's), (23, 59213), (25, 59198), (27, 59147), (30, 59027), (33, 59003), (34, 58994), (37, 58883),

Gene: KingVeVeVe\_81 Start: 62229, Stop: 61843, Start Num: 21

Candidate Starts for KingVeVeVe\_81:

(15, 62340), (16, 62334), (Start: 18 @62265 has 43 MA's), (Start: 21 @62229 has 228 MA's), (Start: 22 @62193 has 1 MA's), (23, 62187), (25, 62172), (30, 62001), (33, 61977), (34, 61968), (37, 61857),

Gene: KlimbOn\_82 Start: 62535, Stop: 62149, Start Num: 21

Candidate Starts for KlimbOn\_82:

(Start: 18 @62571 has 43 MA's), (Start: 21 @62535 has 228 MA's), (Start: 22 @62499 has 1 MA's), (25, 62478), (27, 62427), (30, 62307), (33, 62283), (37, 62163),

Gene: Kloppinator\_83 Start: 62666, Stop: 62280, Start Num: 21

Candidate Starts for Kloppinator\_83:

(Start: 18 @62702 has 43 MA's), (Start: 21 @62666 has 228 MA's), (Start: 22 @62630 has 1 MA's), (23, 62624), (25, 62609), (27, 62558), (30, 62438), (33, 62414), (37, 62294),

Gene: Kwadwo\_82 Start: 62521, Stop: 62135, Start Num: 21

Candidate Starts for Kwadwo\_82:

(17, 62575), (Start: 18 @62557 has 43 MA's), (Start: 21 @62521 has 228 MA's), (Start: 22 @62485 has 1 MA's), (25, 62464), (30, 62293), (33, 62269), (34, 62260), (37, 62149),

Gene: Kwksand96\_84 Start: 62787, Stop: 62401, Start Num: 21

Candidate Starts for Kwksand96\_84:

(Start: 18 @62823 has 43 MA's), (Start: 21 @62787 has 228 MA's), (Start: 22 @62751 has 1 MA's), (23, 62745), (25, 62730), (27, 62679), (30, 62559), (33, 62535), (34, 62526), (37, 62415),

Gene: Labeouficaum\_83 Start: 62600, Stop: 62214, Start Num: 21

Candidate Starts for Labeouficaum\_83:

(Start: 18 @62636 has 43 MA's), (Start: 21 @62600 has 228 MA's), (Start: 22 @62564 has 1 MA's), (23, 62558), (25, 62543), (27, 62492), (30, 62372), (33, 62348), (34, 62339), (37, 62228),

Gene: Larson\_85 Start: 62864, Stop: 62478, Start Num: 21

Candidate Starts for Larson\_85:

(Start: 18 @62900 has 43 MA's), (Start: 21 @62864 has 228 MA's), (Start: 22 @62828 has 1 MA's), (23, 62822), (25, 62807), (27, 62756), (30, 62636), (33, 62612), (34, 62603), (37, 62492),

Gene: LasagnaCat\_84 Start: 62901, Stop: 62515, Start Num: 21

Candidate Starts for LasagnaCat\_84:

(15, 63012), (16, 63006), (Start: 18 @62937 has 43 MA's), (Start: 21 @62901 has 228 MA's), (Start: 22 @62865 has 1 MA's), (25, 62844), (27, 62793), (30, 62673), (33, 62649), (34, 62640), (37, 62529),

Gene: Lasso\_82 Start: 62762, Stop: 62376, Start Num: 21

Candidate Starts for Lasso\_82:

(Start: 18 @62798 has 43 MA's), (Start: 21 @62762 has 228 MA's), (Start: 22 @62726 has 1 MA's), (25, 62705), (27, 62654), (30, 62534), (33, 62510), (34, 62501), (37, 62390),

Gene: LeeLot\_82 Start: 63105, Stop: 62719, Start Num: 21

Candidate Starts for LeeLot\_82:

(Start: 18 @63141 has 43 MA's), (Start: 21 @63105 has 228 MA's), (Start: 22 @63069 has 1 MA's), (23, 63063), (25, 63048), (27, 62997), (30, 62877), (33, 62853), (34, 62844), (37, 62733),

Gene: Lego3393\_81 Start: 63258, Stop: 62836, Start Num: 18

Candidate Starts for Lego3393\_81:

(15, 63333), (16, 63327), (Start: 18 @63258 has 43 MA's), (Start: 21 @63222 has 228 MA's), (Start: 22 @63186 has 1 MA's), (25, 63165), (27, 63114), (30, 62994), (33, 62970), (34, 62961), (37, 62850),

Gene: Legolas\_84 Start: 62849, Stop: 62463, Start Num: 21

Candidate Starts for Legolas\_84:

(5, 63182), (9, 63095), (10, 63092), (Start: 18 @62885 has 43 MA's), (Start: 21 @62849 has 228 MA's), (Start: 22 @62813 has 1 MA's), (23, 62807), (25, 62792), (27, 62741), (30, 62621), (33, 62597), (34, 62588), (37, 62477),

Gene: Lehmann\_86 Start: 63060, Stop: 62674, Start Num: 21

Candidate Starts for Lehmann\_86:

(13, 63216), (14, 63189), (17, 63114), (Start: 18 @63096 has 43 MA's), (Start: 21 @63060 has 228 MA's), (Start: 22 @63024 has 1 MA's), (23, 63018), (25, 63003), (30, 62832), (33, 62808), (34, 62799), (37, 62688),

Gene: LeiMonet\_85 Start: 62983, Stop: 62597, Start Num: 21

Candidate Starts for LeiMonet\_85:

(Start: 18 @63019 has 43 MA's), (Start: 21 @62983 has 228 MA's), (Start: 22 @62947 has 1 MA's), (25, 62926), (27, 62875), (30, 62755), (33, 62731), (37, 62611),

Gene: LemonSlice\_83 Start: 62544, Stop: 62122, Start Num: 18

Candidate Starts for LemonSlice\_83:

(Start: 18 @62544 has 43 MA's), (Start: 21 @62508 has 228 MA's), (Start: 22 @62472 has 1 MA's), (23, 62466), (25, 62451), (27, 62400), (30, 62280), (33, 62256), (34, 62247), (37, 62136),

Gene: Longacauda\_84 Start: 63001, Stop: 62615, Start Num: 21

Candidate Starts for Longacauda\_84:

(15, 63112), (16, 63106), (Start: 18 @63037 has 43 MA's), (Start: 21 @63001 has 228 MA's), (Start: 22 @62965 has 1 MA's), (25, 62944), (27, 62893), (30, 62773), (33, 62749), (34, 62740), (37, 62629),

Gene: Lopsy\_80 Start: 62188, Stop: 61802, Start Num: 21

Candidate Starts for Lopsy\_80:

(7, 62464), (8, 62440), (11, 62413), (12, 62392), (15, 62299), (16, 62293), (Start: 18 @62224 has 43 MA's), (Start: 21 @62188 has 228 MA's), (Start: 22 @62152 has 1 MA's), (23, 62146), (25, 62131), (30, 61960), (33, 61936), (34, 61927), (37, 61816),

Gene: LostAndPhound\_82 Start: 63051, Stop: 62665, Start Num: 21

Candidate Starts for LostAndPhound\_82:

(Start: 18 @63087 has 43 MA's), (Start: 21 @63051 has 228 MA's), (Start: 22 @63015 has 1 MA's), (23, 63009), (25, 62994), (27, 62943), (30, 62823), (33, 62799), (34, 62790), (37, 62679),

Gene: LuckyMarjie\_80 Start: 62260, Stop: 61874, Start Num: 21

Candidate Starts for LuckyMarjie\_80:

(Start: 18 @62296 has 43 MA's), (Start: 21 @62260 has 228 MA's), (Start: 22 @62224 has 1 MA's), (23, 62218), (25, 62203), (27, 62152), (30, 62032), (33, 62008), (34, 61999), (37, 61888),

Gene: Lulumae\_80 Start: 62241, Stop: 61855, Start Num: 21

Candidate Starts for Lulumae\_80:

(Start: 18 @62277 has 43 MA's), (Start: 21 @62241 has 228 MA's), (Start: 22 @62205 has 1 MA's), (23, 62199), (25, 62184), (27, 62133), (30, 62013), (33, 61989), (34, 61980), (37, 61869),

Gene: Lulwa\_80 Start: 61873, Stop: 61487, Start Num: 21

Candidate Starts for Lulwa\_80:

(15, 61984), (16, 61978), (Start: 18 @61909 has 43 MA's), (Start: 21 @61873 has 228 MA's), (Start: 22 @61837 has 1 MA's), (23, 61831), (25, 61816), (27, 61765), (30, 61645), (33, 61621), (34, 61612), (37, 61501),

Gene: Lumine\_84 Start: 62699, Stop: 62313, Start Num: 21

Candidate Starts for Lumine\_84:

(Start: 18 @62735 has 43 MA's), (Start: 21 @62699 has 228 MA's), (Start: 22 @62663 has 1 MA's), (23, 62657), (25, 62642), (27, 62591), (30, 62471), (33, 62447), (34, 62438), (37, 62327),

Gene: MRabcd\_83 Start: 62976, Stop: 62590, Start Num: 21

Candidate Starts for MRabcd\_83:

(Start: 18 @63012 has 43 MA's), (Start: 21 @62976 has 228 MA's), (Start: 22 @62940 has 1 MA's), (25, 62919), (27, 62868), (30, 62748), (33, 62724), (37, 62604),

Gene: Mag7\_81 Start: 62459, Stop: 62073, Start Num: 21

Candidate Starts for Mag7\_81:

(15, 62570), (16, 62564), (Start: 18 @62495 has 43 MA's), (Start: 21 @62459 has 228 MA's), (Start: 22 @62423 has 1 MA's), (25, 62402), (27, 62351), (30, 62231), (33, 62207), (34, 62198), (37, 62087),

Gene: Magic8\_82 Start: 62828, Stop: 62442, Start Num: 21

Candidate Starts for Magic8\_82:

(Start: 18 @62864 has 43 MA's), (Start: 21 @62828 has 228 MA's), (Start: 22 @62792 has 1 MA's), (23, 62786), (25, 62771), (27, 62720), (30, 62600), (33, 62576), (34, 62567), (37, 62456),

Gene: Mana\_81 Start: 62664, Stop: 62278, Start Num: 21

Candidate Starts for Mana\_81:

(Start: 18 @62700 has 43 MA's), (Start: 21 @62664 has 228 MA's), (Start: 22 @62628 has 1 MA's), (23, 62622), (25, 62607), (27, 62556), (30, 62436), (33, 62412), (34, 62403), (37, 62292),

Gene: Manad\_82 Start: 62773, Stop: 62387, Start Num: 21

Candidate Starts for Manad\_82:

(15, 62884), (16, 62878), (Start: 18 @62809 has 43 MA's), (Start: 21 @62773 has 228 MA's), (Start: 22 @62737 has 1 MA's), (23, 62731), (25, 62716), (30, 62545), (33, 62521), (34, 62512), (37, 62401),

Gene: Maru\_83 Start: 63112, Stop: 62726, Start Num: 21

Candidate Starts for Maru\_83:

(Start: 18 @63148 has 43 MA's), (Start: 21 @63112 has 228 MA's), (Start: 22 @63076 has 1 MA's), (23, 63070), (25, 63055), (27, 63004), (30, 62884), (33, 62860), (34, 62851), (37, 62740),

Gene: Maskar\_84 Start: 63024, Stop: 62638, Start Num: 21

Candidate Starts for Maskar\_84:

(Start: 18 @63060 has 43 MA's), (Start: 21 @63024 has 228 MA's), (Start: 22 @62988 has 1 MA's), (23, 62982), (25, 62967), (27, 62916), (30, 62796), (33, 62772), (34, 62763), (37, 62652),

Gene: Matalotodo\_82 Start: 63508, Stop: 63122, Start Num: 21

Candidate Starts for Matalotodo\_82:

(Start: 18 @63544 has 43 MA's), (Start: 21 @63508 has 228 MA's), (Start: 22 @63472 has 1 MA's), (23, 63466), (25, 63451), (27, 63400), (30, 63280), (33, 63256), (34, 63247), (37, 63136),

Gene: Mcshane\_82 Start: 62558, Stop: 62136, Start Num: 18

Candidate Starts for Mcshane\_82:

(Start: 18 @62558 has 43 MA's), (Start: 21 @62522 has 228 MA's), (Start: 22 @62486 has 1 MA's), (23, 62480), (25, 62465), (27, 62414), (30, 62294), (33, 62270), (34, 62261), (37, 62150),

Gene: Mecca\_83 Start: 63076, Stop: 62690, Start Num: 21

Candidate Starts for Mecca\_83:

(Start: 18 @63112 has 43 MA's), (Start: 21 @63076 has 228 MA's), (Start: 22 @63040 has 1 MA's), (23, 63034), (25, 63019), (27, 62968), (30, 62848), (33, 62824), (34, 62815), (37, 62704),

Gene: Megamind20\_83 Start: 62486, Stop: 62100, Start Num: 21

Candidate Starts for Megamind20\_83:

(Start: 18 @62522 has 43 MA's), (Start: 21 @62486 has 228 MA's), (Start: 22 @62450 has 1 MA's), (25, 62429), (30, 62258), (33, 62234), (34, 62225), (37, 62114),

Gene: Megatron\_84 Start: 63194, Stop: 62808, Start Num: 21

Candidate Starts for Megatron\_84:

(17, 63248), (Start: 18 @63230 has 43 MA's), (Start: 21 @63194 has 228 MA's), (Start: 22 @63158 has 1 MA's), (25, 63137), (30, 62966), (33, 62942), (34, 62933), (37, 62822),

Gene: Melc17\_80 Start: 63144, Stop: 62758, Start Num: 21

Candidate Starts for Melc17\_80:

(Start: 18 @63180 has 43 MA's), (Start: 21 @63144 has 228 MA's), (Start: 22 @63108 has 1 MA's), (23, 63102), (25, 63087), (27, 63036), (30, 62916), (33, 62892), (34, 62883), (37, 62772),

Gene: MelsMeow\_82 Start: 62784, Stop: 62398, Start Num: 21

Candidate Starts for MelsMeow\_82:

(Start: 18 @62820 has 43 MA's), (Start: 21 @62784 has 228 MA's), (Start: 22 @62748 has 1 MA's), (23, 62742), (25, 62727), (27, 62676), (30, 62556), (33, 62532), (34, 62523), (37, 62412),

Gene: Mesh1\_84 Start: 63240, Stop: 62854, Start Num: 21

Candidate Starts for Mesh1\_84:

(17, 63294), (Start: 18 @63276 has 43 MA's), (Start: 21 @63240 has 228 MA's), (Start: 22 @63204 has 1 MA's), (25, 63183), (27, 63132), (30, 63012), (33, 62988), (37, 62868),

Gene: Mesmerelda\_82 Start: 63076, Stop: 62690, Start Num: 21

Candidate Starts for Mesmerelda\_82:

(Start: 18 @63112 has 43 MA's), (Start: 21 @63076 has 228 MA's), (Start: 22 @63040 has 1 MA's), (23, 63034), (25, 63019), (27, 62968), (30, 62848), (33, 62824), (34, 62815), (37, 62704),

Gene: MichaelPhcott\_81 Start: 62456, Stop: 62070, Start Num: 21

Candidate Starts for MichaelPhcott\_81:

(15, 62567), (16, 62561), (Start: 18 @62492 has 43 MA's), (Start: 21 @62456 has 228 MA's), (Start: 22 @62420 has 1 MA's), (25, 62399), (27, 62348), (30, 62228), (33, 62204), (34, 62195), (37, 62084),

Gene: Mikota\_80 Start: 62227, Stop: 61841, Start Num: 21

Candidate Starts for Mikota\_80:

(15, 62338), (16, 62332), (Start: 18 @62263 has 43 MA's), (Start: 21 @62227 has 228 MA's), (Start: 22 @62191 has 1 MA's), (23, 62185), (25, 62170), (30, 61999), (33, 61975), (34, 61966), (37, 61855),

Gene: MiniBoss\_80 Start: 61828, Stop: 61442, Start Num: 21

Candidate Starts for MiniBoss\_80:

(15, 61939), (16, 61933), (Start: 18 @61864 has 43 MA's), (Start: 21 @61828 has 228 MA's), (Start: 22 @61792 has 1 MA's), (23, 61786), (25, 61771), (30, 61600), (33, 61576), (34, 61567), (37, 61456),

Gene: MitKao\_83 Start: 62714, Stop: 62331, Start Num: 18

Candidate Starts for MitKao\_83:

(Start: 18 @62714 has 43 MA's), (Start: 21 @62678 has 228 MA's), (Start: 22 @62642 has 1 MA's), (23, 62636), (25, 62621), (27, 62570), (30, 62450), (33, 62426), (34, 62417),

Gene: Morgushi\_81 Start: 62528, Stop: 62106, Start Num: 18

Candidate Starts for Morgushi\_81:

(Start: 18 @62528 has 43 MA's), (Start: 21 @62492 has 228 MA's), (Start: 22 @62456 has 1 MA's), (23, 62450), (25, 62435), (27, 62384), (30, 62264), (33, 62240), (34, 62231), (37, 62120),

Gene: Morty\_84 Start: 63064, Stop: 62678, Start Num: 21

Candidate Starts for Morty\_84:

(Start: 18 @63100 has 43 MA's), (Start: 21 @63064 has 228 MA's), (Start: 22 @63028 has 1 MA's), (23, 63022), (25, 63007), (27, 62956), (30, 62836), (33, 62812), (34, 62803), (37, 62692),

Gene: Mosaic\_81 Start: 62674, Stop: 62282, Start Num: 21

Candidate Starts for Mosaic\_81:

(Start: 18 @62710 has 43 MA's), (Start: 21 @62674 has 228 MA's), (Start: 22 @62638 has 1 MA's), (23, 62632), (25, 62617), (27, 62566), (30, 62446), (33, 62422), (34, 62413), (39, 62290),

Gene: MrPhizzler\_86 Start: 62972, Stop: 62586, Start Num: 21

Candidate Starts for MrPhizzler\_86:

(Start: 18 @63008 has 43 MA's), (Start: 21 @62972 has 228 MA's), (Start: 22 @62936 has 1 MA's), (25, 62915), (27, 62864), (30, 62744), (33, 62720), (37, 62600),

Gene: Mulan\_82 Start: 62707, Stop: 62321, Start Num: 21

Candidate Starts for Mulan\_82:

(Start: 18 @62743 has 43 MA's), (Start: 21 @62707 has 228 MA's), (Start: 22 @62671 has 1 MA's), (23, 62665), (25, 62650), (27, 62599), (30, 62479), (33, 62455), (34, 62446), (37, 62335),

Gene: Murdoc\_80 Start: 62785, Stop: 62399, Start Num: 21

Candidate Starts for Murdoc\_80:

(Start: 18 @62821 has 43 MA's), (Start: 21 @62785 has 228 MA's), (Start: 22 @62749 has 1 MA's), (23, 62743), (25, 62728), (27, 62677), (30, 62557), (33, 62533), (34, 62524), (37, 62413),

Gene: Mutante\_84 Start: 62679, Stop: 62293, Start Num: 21

Candidate Starts for Mutante\_84:

(Start: 18 @62715 has 43 MA's), (Start: 21 @62679 has 228 MA's), (Start: 22 @62643 has 1 MA's), (23, 62637), (25, 62622), (27, 62571), (30, 62451), (33, 62427), (34, 62418), (37, 62307),

Gene: Nacho\_0086 Start: 63785, Stop: 63363, Start Num: 18

Candidate Starts for Nacho\_0086:

(15, 63860), (16, 63854), (Start: 18 @63785 has 43 MA's), (Start: 21 @63749 has 228 MA's), (Start: 22 @63713 has 1 MA's), (23, 63707), (25, 63692), (30, 63521), (33, 63497), (34, 63488), (37, 63377),

Gene: Nathan\_84 Start: 63205, Stop: 62819, Start Num: 21

Candidate Starts for Nathan\_84:

(13, 63361), (Start: 18 @63241 has 43 MA's), (Start: 21 @63205 has 228 MA's), (Start: 22 @63169 has 1 MA's), (23, 63163), (25, 63148), (27, 63097), (30, 62977), (33, 62953), (34, 62944), (37, 62833),

Gene: Newman\_81 Start: 63026, Stop: 62640, Start Num: 21

Candidate Starts for Newman\_81:

(15, 63137), (16, 63131), (Start: 18 @63062 has 43 MA's), (Start: 21 @63026 has 228 MA's), (Start: 22 @62990 has 1 MA's), (23, 62984), (25, 62969), (30, 62798), (33, 62774), (34, 62765), (37, 62654),

Gene: Nicole21\_84 Start: 62812, Stop: 62426, Start Num: 21

Candidate Starts for Nicole21\_84:

(15, 62923), (16, 62917), (Start: 18 @62848 has 43 MA's), (Start: 21 @62812 has 228 MA's), (Start: 22 @62776 has 1 MA's), (23, 62770), (25, 62755), (27, 62704), (30, 62584), (33, 62560), (34, 62551), (37, 62440),

Gene: Numberten\_82 Start: 62830, Stop: 62408, Start Num: 18

Candidate Starts for Numberten\_82:

(Start: 18 @62830 has 43 MA's), (Start: 21 @62794 has 228 MA's), (Start: 22 @62758 has 1 MA's), (23, 62752), (25, 62737), (27, 62686), (30, 62566), (33, 62542), (34, 62533), (37, 62422),

Gene: Nyala\_82 Start: 62529, Stop: 62143, Start Num: 21

Candidate Starts for Nyala\_82:

(Start: 18 @62565 has 43 MA's), (Start: 21 @62529 has 228 MA's), (Start: 22 @62493 has 1 MA's), (23, 62487), (25, 62472), (27, 62421), (30, 62301), (33, 62277), (34, 62268), (37, 62157),

Gene: Olak\_82 Start: 62693, Stop: 62307, Start Num: 21

Candidate Starts for Olak\_82:

(Start: 18 @62729 has 43 MA's), (Start: 21 @62693 has 228 MA's), (Start: 22 @62657 has 1 MA's), (25, 62636), (27, 62585), (30, 62465), (33, 62441), (34, 62432), (37, 62321),

Gene: Oline\_82 Start: 62682, Stop: 62296, Start Num: 21

Candidate Starts for Oline\_82:

(15, 62793), (16, 62787), (Start: 18 @62718 has 43 MA's), (Start: 21 @62682 has 228 MA's), (Start: 22 @62646 has 1 MA's), (25, 62625), (27, 62574), (30, 62454), (33, 62430), (34, 62421), (37, 62310),



Gene: Olive\_81 Start: 62923, Stop: 62537, Start Num: 21

Candidate Starts for Olive\_81:

(15, 63034), (16, 63028), (Start: 18 @62959 has 43 MA's), (Start: 21 @62923 has 228 MA's), (Start: 22 @62887 has 1 MA's), (23, 62881), (25, 62866), (27, 62815), (30, 62695), (33, 62671), (34, 62662), (37, 62551),

Gene: OliverWalter\_83 Start: 62980, Stop: 62594, Start Num: 21

Candidate Starts for OliverWalter\_83:

(Start: 18 @63016 has 43 MA's), (Start: 21 @62980 has 228 MA's), (Start: 22 @62944 has 1 MA's), (23, 62938), (25, 62923), (27, 62872), (30, 62752), (33, 62728), (34, 62719), (37, 62608),

Gene: Omniscient\_84 Start: 63383, Stop: 62997, Start Num: 21

Candidate Starts for Omniscient\_84:

(Start: 18 @63419 has 43 MA's), (Start: 21 @63383 has 228 MA's), (Start: 22 @63347 has 1 MA's), (23, 63341), (25, 63326), (27, 63275), (30, 63155), (33, 63131), (34, 63122), (37, 63011),

Gene: Oosterbaan\_83 Start: 62920, Stop: 62534, Start Num: 21

Candidate Starts for Oosterbaan\_83:

(Start: 18 @62956 has 43 MA's), (Start: 21 @62920 has 228 MA's), (Start: 22 @62884 has 1 MA's), (23, 62878), (25, 62863), (27, 62812), (30, 62692), (33, 62668), (34, 62659), (37, 62548),

Gene: Orfeu\_82 Start: 63042, Stop: 62656, Start Num: 21

Candidate Starts for Orfeu\_82:

(Start: 18 @63078 has 43 MA's), (Start: 21 @63042 has 228 MA's), (Start: 22 @63006 has 1 MA's), (23, 63000), (25, 62985), (27, 62934), (30, 62814), (33, 62790), (34, 62781), (37, 62670),

Gene: Orion\_82 Start: 62612, Stop: 62226, Start Num: 21

Candidate Starts for Orion\_82:

(Start: 18 @62648 has 43 MA's), (Start: 21 @62612 has 228 MA's), (Start: 22 @62576 has 1 MA's), (23, 62570), (25, 62555), (27, 62504), (30, 62384), (33, 62360), (34, 62351), (37, 62240),

Gene: Orwigg\_82 Start: 62448, Stop: 62062, Start Num: 21

Candidate Starts for Orwigg\_82:

(Start: 18 @62484 has 43 MA's), (Start: 21 @62448 has 228 MA's), (Start: 22 @62412 has 1 MA's), (23, 62406), (25, 62391), (27, 62340), (30, 62220), (33, 62196), (34, 62187), (37, 62076),

Gene: PG1\_82 Start: 63184, Stop: 62798, Start Num: 21

Candidate Starts for PG1\_82:

(Start: 18 @63220 has 43 MA's), (Start: 21 @63184 has 228 MA's), (Start: 22 @63148 has 1 MA's), (23, 63142), (25, 63127), (27, 63076), (30, 62956), (33, 62932), (34, 62923), (37, 62812),

Gene: Pacifista\_82 Start: 62532, Stop: 62146, Start Num: 21

Candidate Starts for Pacifista\_82:

(15, 62643), (16, 62637), (Start: 18 @62568 has 43 MA's), (Start: 21 @62532 has 228 MA's), (Start: 22 @62496 has 1 MA's), (25, 62475), (27, 62424), (30, 62304), (33, 62280), (37, 62160),

Gene: PallasAthena\_84 Start: 62513, Stop: 62127, Start Num: 21

Candidate Starts for PallasAthena\_84:

(15, 62624), (16, 62618), (Start: 18 @62549 has 43 MA's), (Start: 21 @62513 has 228 MA's), (Start: 22 @62477 has 1 MA's), (25, 62456), (27, 62405), (30, 62285), (33, 62261), (34, 62252), (37, 62141),

Gene: Phamished\_83 Start: 62736, Stop: 62314, Start Num: 18

Candidate Starts for Phamished\_83:

(Start: 18 @62736 has 43 MA's), (Start: 21 @62700 has 228 MA's), (Start: 22 @62664 has 1 MA's), (23, 62658), (25, 62643), (27, 62592), (30, 62472), (33, 62448), (34, 62439), (37, 62328),

Gene: Phareon\_81 Start: 62225, Stop: 61833, Start Num: 21

Candidate Starts for Phareon\_81:

(Start: 18 @62261 has 43 MA's), (Start: 21 @62225 has 228 MA's), (Start: 22 @62189 has 1 MA's), (23, 62183), (25, 62168), (27, 62117), (30, 61997), (33, 61973), (34, 61964), (39, 61841),

Gene: PhatCats2014\_83 Start: 63184, Stop: 62798, Start Num: 21

Candidate Starts for PhatCats2014\_83:

(Start: 18 @63220 has 43 MA's), (Start: 21 @63184 has 228 MA's), (Start: 22 @63148 has 1 MA's), (23, 63142), (25, 63127), (27, 63076), (30, 62956), (33, 62932), (34, 62923), (37, 62812),

Gene: PhatLouie\_85 Start: 63059, Stop: 62673, Start Num: 21

Candidate Starts for PhatLouie\_85:

(Start: 18 @63095 has 43 MA's), (Start: 21 @63059 has 228 MA's), (Start: 22 @63023 has 1 MA's), (23, 63017), (25, 63002), (27, 62951), (30, 62831), (33, 62807), (34, 62798), (37, 62687),

Gene: PhenghisKhan\_83 Start: 62688, Stop: 62302, Start Num: 21

Candidate Starts for PhenghisKhan\_83:

(15, 62799), (16, 62793), (Start: 18 @62724 has 43 MA's), (Start: 21 @62688 has 228 MA's), (Start: 22 @62652 has 1 MA's), (25, 62631), (27, 62580), (30, 62460), (33, 62436), (34, 62427), (37, 62316),

Gene: Pherdinand\_84 Start: 62904, Stop: 62518, Start Num: 21

Candidate Starts for Pherdinand\_84:

(15, 63015), (16, 63009), (Start: 18 @62940 has 43 MA's), (Start: 21 @62904 has 228 MA's), (Start: 22 @62868 has 1 MA's), (25, 62847), (27, 62796), (30, 62676), (33, 62652), (37, 62532),

Gene: Phergie\_83 Start: 62677, Stop: 62291, Start Num: 21

Candidate Starts for Phergie\_83:

(15, 62788), (16, 62782), (Start: 18 @62713 has 43 MA's), (Start: 21 @62677 has 228 MA's), (Start: 22 @62641 has 1 MA's), (25, 62620), (27, 62569), (30, 62449), (33, 62425), (34, 62416), (37, 62305),

Gene: Phipps\_82 Start: 62756, Stop: 62370, Start Num: 21

Candidate Starts for Phipps\_82:

(Start: 18 @62792 has 43 MA's), (Start: 21 @62756 has 228 MA's), (Start: 22 @62720 has 1 MA's), (23, 62714), (25, 62699), (27, 62648), (30, 62528), (33, 62504), (34, 62495), (37, 62384),

Gene: Phleuron\_81 Start: 62489, Stop: 62103, Start Num: 21

Candidate Starts for Phleuron\_81:

(15, 62600), (16, 62594), (Start: 18 @62525 has 43 MA's), (Start: 21 @62489 has 228 MA's), (Start: 22 @62453 has 1 MA's), (25, 62432), (27, 62381), (30, 62261), (33, 62237), (34, 62228), (37, 62117),

Gene: PhrankReynolds\_82 Start: 62682, Stop: 62296, Start Num: 21

Candidate Starts for PhrankReynolds\_82:

(15, 62793), (16, 62787), (Start: 18 @62718 has 43 MA's), (Start: 21 @62682 has 228 MA's), (Start: 22 @62646 has 1 MA's), (25, 62625), (27, 62574), (30, 62454), (33, 62430), (34, 62421), (37, 62310),

Gene: PhrodoBaggins\_85 Start: 63059, Stop: 62673, Start Num: 21

Candidate Starts for PhrodoBaggins\_85:

(Start: 18 @63095 has 43 MA's), (Start: 21 @63059 has 228 MA's), (Start: 22 @63023 has 1 MA's), (23, 63017), (25, 63002), (27, 62951), (30, 62831), (33, 62807), (34, 62798), (37, 62687),

Gene: Phunky\_81 Start: 62563, Stop: 62177, Start Num: 21

Candidate Starts for Phunky\_81:

(Start: 18 @62599 has 43 MA's), (Start: 21 @62563 has 228 MA's), (Start: 22 @62527 has 1 MA's), (25, 62506), (27, 62455), (30, 62335), (33, 62311), (34, 62302), (37, 62191),

Gene: Piglet\_0083 Start: 63214, Stop: 62792, Start Num: 18

Candidate Starts for Piglet\_0083:

(Start: 18 @63214 has 43 MA's), (Start: 21 @63178 has 228 MA's), (Start: 22 @63142 has 1 MA's), (23, 63136), (25, 63121), (27, 63070), (30, 62950), (33, 62926), (34, 62917), (37, 62806),

Gene: PinheadLarry\_82 Start: 62865, Stop: 62443, Start Num: 18

Candidate Starts for PinheadLarry\_82:

(Start: 18 @62865 has 43 MA's), (Start: 21 @62829 has 228 MA's), (Start: 22 @62793 has 1 MA's), (25, 62772), (27, 62721), (30, 62601), (33, 62577), (34, 62568), (37, 62457),

Gene: Pinkman\_83 Start: 62901, Stop: 62515, Start Num: 21

Candidate Starts for Pinkman\_83:

(15, 63012), (16, 63006), (Start: 18 @62937 has 43 MA's), (Start: 21 @62901 has 228 MA's), (Start: 22 @62865 has 1 MA's), (25, 62844), (27, 62793), (30, 62673), (33, 62649), (34, 62640), (37, 62529),

Gene: Pipsqueak\_80 Start: 62550, Stop: 62128, Start Num: 18

Candidate Starts for Pipsqueak\_80:

(15, 62625), (16, 62619), (Start: 18 @62550 has 43 MA's), (Start: 21 @62514 has 228 MA's), (Start: 22 @62478 has 1 MA's), (25, 62457), (30, 62286), (33, 62262), (34, 62253), (37, 62142),

Gene: Placalicious\_82 Start: 63548, Stop: 63162, Start Num: 21

Candidate Starts for Placalicious\_82:

(Start: 18 @63584 has 43 MA's), (Start: 21 @63548 has 228 MA's), (Start: 22 @63512 has 1 MA's), (23, 63506), (25, 63491), (27, 63440), (30, 63320), (33, 63296), (34, 63287), (37, 63176),

Gene: Plata\_82 Start: 62769, Stop: 62383, Start Num: 21

Candidate Starts for Plata\_82:

(15, 62880), (16, 62874), (Start: 18 @62805 has 43 MA's), (Start: 21 @62769 has 228 MA's), (Start: 22 @62733 has 1 MA's), (23, 62727), (25, 62712), (27, 62661), (30, 62541), (33, 62517), (37, 62397),

Gene: Plmatters\_81 Start: 62503, Stop: 62117, Start Num: 21

Candidate Starts for Plmatters\_81:

(13, 62659), (Start: 18 @62539 has 43 MA's), (Start: 21 @62503 has 228 MA's), (Start: 22 @62467 has 1 MA's), (23, 62461), (25, 62446), (30, 62275), (33, 62251), (34, 62242), (37, 62131),

Gene: Podrick\_82 Start: 62590, Stop: 62204, Start Num: 21

Candidate Starts for Podrick\_82:

(15, 62701), (16, 62695), (Start: 18 @62626 has 43 MA's), (Start: 21 @62590 has 228 MA's), (Start: 22 @62554 has 1 MA's), (23, 62548), (25, 62533), (27, 62482), (30, 62362), (33, 62338), (34, 62329), (37, 62218),

Gene: Pops\_81 Start: 62692, Stop: 62306, Start Num: 21

Candidate Starts for Pops\_81:

(15, 62803), (16, 62797), (Start: 18 @62728 has 43 MA's), (Start: 21 @62692 has 228 MA's), (Start: 22 @62656 has 1 MA's), (23, 62650), (25, 62635), (27, 62584), (30, 62464), (33, 62440), (34, 62431), (37, 62320),

Gene: Potter\_79 Start: 62512, Stop: 62126, Start Num: 21

Candidate Starts for Potter\_79:

(Start: 18 @62548 has 43 MA's), (Start: 21 @62512 has 228 MA's), (Start: 22 @62476 has 1 MA's), (23, 62470), (25, 62455), (27, 62404), (30, 62284), (33, 62260), (37, 62140),

Gene: ProfessorX\_81 Start: 62549, Stop: 62163, Start Num: 21

Candidate Starts for ProfessorX\_81:

(Start: 18 @62585 has 43 MA's), (Start: 21 @62549 has 228 MA's), (Start: 22 @62513 has 1 MA's), (23, 62507), (25, 62492), (27, 62441), (30, 62321), (33, 62297), (34, 62288), (37, 62177),

Gene: Puhltonio\_80 Start: 62822, Stop: 62400, Start Num: 18

Candidate Starts for Puhltonio\_80:

(Start: 18 @62822 has 43 MA's), (Start: 21 @62786 has 228 MA's), (Start: 22 @62750 has 1 MA's), (23, 62744), (25, 62729), (27, 62678), (30, 62558), (33, 62534), (34, 62525), (37, 62414),

Gene: Pupper\_67 Start: 23663, Stop: 24055, Start Num: 19

Candidate Starts for Pupper\_67:

(Start: 19 @23663 has 3 MA's),

Gene: QueenBeane\_83 Start: 62836, Stop: 62450, Start Num: 21

Candidate Starts for QueenBeane\_83:

(17, 62890), (Start: 18 @62872 has 43 MA's), (Start: 21 @62836 has 228 MA's), (Start: 22 @62800 has 1 MA's), (25, 62779), (27, 62728), (30, 62608), (33, 62584), (34, 62575), (37, 62464),

Gene: Quisquiliae\_85 Start: 62882, Stop: 62460, Start Num: 18

Candidate Starts for Quisquiliae\_85:

(Start: 18 @62882 has 43 MA's), (Start: 21 @62846 has 228 MA's), (Start: 22 @62810 has 1 MA's), (23, 62804), (25, 62789), (27, 62738), (30, 62618), (33, 62594), (34, 62585), (37, 62474),

Gene: RedMaple\_83 Start: 63449, Stop: 63063, Start Num: 21

Candidate Starts for RedMaple\_83:

(13, 63605), (Start: 18 @63485 has 43 MA's), (Start: 21 @63449 has 228 MA's), (Start: 22 @63413 has 1 MA's), (23, 63407), (25, 63392), (27, 63341), (30, 63221), (33, 63197), (34, 63188), (37, 63077),

Gene: RedRaider89\_85 Start: 63134, Stop: 62748, Start Num: 21

Candidate Starts for RedRaider89\_85:

(15, 63245), (16, 63239), (Start: 18 @63170 has 43 MA's), (Start: 21 @63134 has 228 MA's), (Start: 22 @63098 has 1 MA's), (23, 63092), (25, 63077), (30, 62906), (33, 62882), (34, 62873), (37, 62762),

Gene: Ricotta\_83 Start: 62530, Stop: 62144, Start Num: 21

Candidate Starts for Ricotta\_83:

(15, 62641), (16, 62635), (Start: 18 @62566 has 43 MA's), (Start: 21 @62530 has 228 MA's), (Start: 22 @62494 has 1 MA's), (25, 62473), (27, 62422), (30, 62302), (33, 62278), (34, 62269), (37, 62158),

Gene: Riggan\_84 Start: 62980, Stop: 62630, Start Num: 22

Candidate Starts for Riggan\_84:

(15, 63127), (16, 63121), (Start: 18 @63052 has 43 MA's), (Start: 21 @63016 has 228 MA's), (Start: 22 @62980 has 1 MA's), (25, 62959), (27, 62908), (30, 62788), (33, 62764), (37, 62644),

Gene: Rimu\_83 Start: 63031, Stop: 62603, Start Num: 18

Candidate Starts for Rimu\_83:

(Start: 18 @63031 has 43 MA's), (Start: 21 @62995 has 228 MA's), (Start: 22 @62959 has 1 MA's), (23, 62953), (25, 62938), (27, 62887), (30, 62767), (33, 62743), (34, 62734), (37, 62623), (39, 62611),

Gene: Riverton\_82 Start: 62774, Stop: 62388, Start Num: 21

Candidate Starts for Riverton\_82:

(15, 62885), (16, 62879), (Start: 18 @62810 has 43 MA's), (Start: 21 @62774 has 228 MA's), (Start: 22 @62738 has 1 MA's), (23, 62732), (25, 62717), (30, 62546), (33, 62522), (34, 62513), (37, 62402),

Gene: Robyn\_85 Start: 63273, Stop: 62887, Start Num: 21

Candidate Starts for Robyn\_85:

(15, 63384), (16, 63378), (Start: 18 @63309 has 43 MA's), (Start: 21 @63273 has 228 MA's), (Start: 22 @63237 has 1 MA's), (23, 63231), (25, 63216), (30, 63045), (33, 63021), (34, 63012), (37, 62901),

Gene: Roliet\_80 Start: 61876, Stop: 61490, Start Num: 21

Candidate Starts for Roliet\_80:

(Start: 18 @61912 has 43 MA's), (Start: 21 @61876 has 228 MA's), (Start: 22 @61840 has 1 MA's), (23, 61834), (25, 61819), (30, 61648), (33, 61624), (34, 61615), (37, 61504),

Gene: Roscoe\_83 Start: 63135, Stop: 62749, Start Num: 21

Candidate Starts for Roscoe\_83:

(15, 63246), (16, 63240), (Start: 18 @63171 has 43 MA's), (Start: 21 @63135 has 228 MA's), (Start: 22 @63099 has 1 MA's), (23, 63093), (25, 63078), (30, 62907), (33, 62883), (34, 62874), (37, 62763),

Gene: Roy17\_81 Start: 62277, Stop: 61855, Start Num: 18

Candidate Starts for Roy17\_81:

(Start: 18 @62277 has 43 MA's), (Start: 21 @62241 has 228 MA's), (Start: 22 @62205 has 1 MA's), (23, 62199), (25, 62184), (27, 62133), (30, 62013), (33, 61989), (34, 61980), (37, 61869),

Gene: SCentae\_66 Start: 23417, Stop: 23809, Start Num: 19

Candidate Starts for SCentae\_66:

(Start: 19 @23417 has 3 MA's),

Gene: SDcharge11\_82 Start: 62204, Stop: 61782, Start Num: 18

Candidate Starts for SDcharge11\_82:

(15, 62279), (16, 62273), (Start: 18 @62204 has 43 MA's), (Start: 21 @62168 has 228 MA's), (Start: 22 @62132 has 1 MA's), (23, 62126), (25, 62111), (30, 61940), (33, 61916), (34, 61907), (37, 61796),

Gene: SallyH\_86 Start: 62776, Stop: 62390, Start Num: 21

Candidate Starts for SallyH\_86:

(13, 62932), (14, 62905), (Start: 18 @62812 has 43 MA's), (Start: 21 @62776 has 228 MA's), (Start: 22 @62740 has 1 MA's), (23, 62734), (25, 62719), (30, 62548), (33, 62524), (34, 62515), (37, 62404),

Gene: Samaymay\_83 Start: 62836, Stop: 62450, Start Num: 21

Candidate Starts for Samaymay\_83:

(17, 62890), (Start: 18 @62872 has 43 MA's), (Start: 21 @62836 has 228 MA's), (Start: 22 @62800 has 1 MA's), (25, 62779), (27, 62728), (30, 62608), (33, 62584), (34, 62575), (37, 62464),

Gene: SassyCat97\_81 Start: 62503, Stop: 62117, Start Num: 21

Candidate Starts for SassyCat97\_81:

(17, 62557), (Start: 18 @62539 has 43 MA's), (Start: 21 @62503 has 228 MA's), (Start: 22 @62467 has 1 MA's), (23, 62461), (25, 62446), (27, 62395), (30, 62275), (33, 62251), (34, 62242), (37, 62131),

Gene: Schadenfreude\_83 Start: 62394, Stop: 62008, Start Num: 21

Candidate Starts for Schadenfreude\_83:

(13, 62550), (14, 62523), (17, 62448), (Start: 18 @62430 has 43 MA's), (Start: 21 @62394 has 228 MA's), (Start: 22 @62358 has 1 MA's), (25, 62337), (27, 62286), (30, 62166), (33, 62142), (34, 62133), (37, 62022),

Gene: Schueller\_81 Start: 62776, Stop: 62390, Start Num: 21

Candidate Starts for Schueller\_81:

(15, 62887), (16, 62881), (Start: 18 @62812 has 43 MA's), (Start: 21 @62776 has 228 MA's), (Start: 22 @62740 has 1 MA's), (25, 62719), (27, 62668), (30, 62548), (33, 62524), (34, 62515), (37, 62404),

Gene: Scoot17C\_84 Start: 62616, Stop: 62230, Start Num: 21

Candidate Starts for Scoot17C\_84:

(Start: 18 @62652 has 43 MA's), (Start: 21 @62616 has 228 MA's), (Start: 22 @62580 has 1 MA's), (23, 62574), (25, 62559), (27, 62508), (30, 62388), (33, 62364), (34, 62355), (37, 62244),

Gene: Scrick\_82 Start: 62517, Stop: 62131, Start Num: 21

Candidate Starts for Scrick\_82:

(Start: 18 @62553 has 43 MA's), (Start: 21 @62517 has 228 MA's), (Start: 22 @62481 has 1 MA's), (23, 62475), (25, 62460), (27, 62409), (30, 62289), (33, 62265), (34, 62256), (37, 62145),

Gene: Selr12\_84 Start: 62559, Stop: 62173, Start Num: 21

Candidate Starts for Selr12\_84:

(Start: 18 @62595 has 43 MA's), (Start: 21 @62559 has 228 MA's), (Start: 22 @62523 has 1 MA's), (23, 62517), (25, 62502), (27, 62451), (30, 62331), (33, 62307), (34, 62298), (37, 62187),

Gene: Serendipity\_83 Start: 62989, Stop: 62603, Start Num: 21

Candidate Starts for Serendipity\_83:

(Start: 18 @63025 has 43 MA's), (Start: 21 @62989 has 228 MA's), (Start: 22 @62953 has 1 MA's), (23, 62947), (25, 62932), (27, 62881), (30, 62761), (33, 62737), (34, 62728), (37, 62617),

Gene: Serpentine\_0084 Start: 63106, Stop: 62684, Start Num: 18

Candidate Starts for Serpentine\_0084:

(Start: 18 @63106 has 43 MA's), (Start: 21 @63070 has 228 MA's), (Start: 22 @63034 has 1 MA's), (23, 63028), (25, 63013), (27, 62962), (30, 62842), (33, 62818), (34, 62809), (37, 62698),

Gene: Settecandela\_194 Start: 123383, Stop: 123754, Start Num: 21

Candidate Starts for Settecandela\_194:

(1, 122219), (2, 122393), (3, 122705), (4, 122948), (20, 123380), (Start: 21 @123383 has 228 MA's), (24, 123431), (26, 123464), (28, 123578), (29, 123590), (31, 123608), (32, 123620), (34, 123632), (36, 123731), (38, 123746),

Gene: ShadowBud\_84 Start: 62843, Stop: 62457, Start Num: 21

Candidate Starts for ShadowBud\_84:

(Start: 18 @62879 has 43 MA's), (Start: 21 @62843 has 228 MA's), (Start: 22 @62807 has 1 MA's), (23, 62801), (25, 62786), (27, 62735), (30, 62615), (33, 62591), (34, 62582), (37, 62471),

Gene: Sheila\_79 Start: 62081, Stop: 61695, Start Num: 21

Candidate Starts for Sheila\_79:

(15, 62192), (16, 62186), (Start: 18 @62117 has 43 MA's), (Start: 21 @62081 has 228 MA's), (Start: 22 @62045 has 1 MA's), (23, 62039), (25, 62024), (30, 61853), (33, 61829), (34, 61820), (37, 61709),

Gene: ShiVal\_81 Start: 62577, Stop: 62155, Start Num: 18

Candidate Starts for ShiVal\_81:

(Start: 18 @62577 has 43 MA's), (Start: 21 @62541 has 228 MA's), (Start: 22 @62505 has 1 MA's), (23, 62499), (25, 62484), (27, 62433), (30, 62313), (33, 62289), (34, 62280), (37, 62169),

Gene: Sigman\_83 Start: 62532, Stop: 62110, Start Num: 18

Candidate Starts for Sigman\_83:

(15, 62607), (16, 62601), (Start: 18 @62532 has 43 MA's), (Start: 21 @62496 has 228 MA's), (Start: 22 @62460 has 1 MA's), (25, 62439), (30, 62268), (33, 62244), (34, 62235), (37, 62124),

Gene: SilverBell\_84 Start: 62950, Stop: 62564, Start Num: 21

Candidate Starts for SilverBell\_84:

(15, 63061), (16, 63055), (Start: 18 @62986 has 43 MA's), (Start: 21 @62950 has 228 MA's), (Start: 22 @62914 has 1 MA's), (23, 62908), (25, 62893), (27, 62842), (30, 62722), (33, 62698), (34, 62689), (37, 62578),

Gene: Simielle\_82 Start: 62483, Stop: 62097, Start Num: 21

Candidate Starts for Simielle\_82:

(Start: 18 @62519 has 43 MA's), (Start: 21 @62483 has 228 MA's), (Start: 22 @62447 has 1 MA's), (23, 62441), (25, 62426), (27, 62375), (30, 62255), (33, 62231), (34, 62222), (37, 62111),

Gene: SirBeauregard\_84 Start: 63063, Stop: 62677, Start Num: 21

Candidate Starts for SirBeauregard\_84:

(Start: 18 @63099 has 43 MA's), (Start: 21 @63063 has 228 MA's), (Start: 22 @63027 has 1 MA's), (25, 63006), (27, 62955), (30, 62835), (33, 62811), (34, 62802), (37, 62691),

Gene: Skippy\_84 Start: 62911, Stop: 62525, Start Num: 21

Candidate Starts for Skippy\_84:

(Start: 18 @62947 has 43 MA's), (Start: 21 @62911 has 228 MA's), (Start: 22 @62875 has 1 MA's), (23, 62869), (25, 62854), (27, 62803), (30, 62683), (33, 62659), (34, 62650), (37, 62539),

Gene: Slatt\_83 Start: 62798, Stop: 62412, Start Num: 21

Candidate Starts for Slatt\_83:

(Start: 18 @62834 has 43 MA's), (Start: 21 @62798 has 228 MA's), (Start: 22 @62762 has 1 MA's), (23, 62756), (25, 62741), (27, 62690), (30, 62570), (33, 62546), (34, 62537), (37, 62426),

Gene: Soile\_84 Start: 63035, Stop: 62649, Start Num: 21

Candidate Starts for Soile\_84:

(15, 63146), (16, 63140), (Start: 18 @63071 has 43 MA's), (Start: 21 @63035 has 228 MA's), (Start: 22 @62999 has 1 MA's), (25, 62978), (27, 62927), (30, 62807), (33, 62783), (34, 62774), (37, 62663),

Gene: Solosis\_81 Start: 62503, Stop: 62117, Start Num: 21

Candidate Starts for Solosis\_81:

(6, 62830), (7, 62779), (8, 62755), (11, 62728), (12, 62707), (15, 62614), (16, 62608), (Start: 18 @62539 has 43 MA's), (Start: 21 @62503 has 228 MA's), (Start: 22 @62467 has 1 MA's), (23, 62461), (25, 62446), (27, 62395), (30, 62275), (33, 62251), (37, 62131),

Gene: Sophia\_81 Start: 62493, Stop: 62107, Start Num: 21

Candidate Starts for Sophia\_81:

(Start: 18 @62529 has 43 MA's), (Start: 21 @62493 has 228 MA's), (Start: 22 @62457 has 1 MA's), (25, 62436), (27, 62385), (30, 62265), (33, 62241), (34, 62232), (37, 62121),

Gene: Soto\_80 Start: 62244, Stop: 61816, Start Num: 18

Candidate Starts for Soto\_80:

(15, 62319), (16, 62313), (Start: 18 @62244 has 43 MA's), (Start: 21 @62208 has 228 MA's), (Start: 22 @62172 has 1 MA's), (23, 62166), (25, 62151), (30, 61980), (33, 61956), (34, 61947), (39, 61824),

Gene: Spartan300\_82 Start: 62754, Stop: 62368, Start Num: 21

Candidate Starts for Spartan300\_82:

(Start: 18 @62790 has 43 MA's), (Start: 21 @62754 has 228 MA's), (Start: 22 @62718 has 1 MA's), (23, 62712), (25, 62697), (27, 62646), (30, 62526), (33, 62502), (34, 62493), (37, 62382),

Gene: Squid\_82 Start: 62819, Stop: 62397, Start Num: 18

Candidate Starts for Squid\_82:

(Start: 18 @62819 has 43 MA's), (Start: 21 @62783 has 228 MA's), (Start: 22 @62747 has 1 MA's), (23, 62741), (25, 62726), (27, 62675), (30, 62555), (33, 62531), (34, 62522), (37, 62411),

Gene: Squiggle\_82 Start: 62511, Stop: 62125, Start Num: 21

Candidate Starts for Squiggle\_82:

(Start: 18 @62547 has 43 MA's), (Start: 21 @62511 has 228 MA's), (Start: 22 @62475 has 1 MA's), (23, 62469), (25, 62454), (27, 62403), (30, 62283), (33, 62259), (34, 62250), (37, 62139),

Gene: Struggle\_83 Start: 62645, Stop: 62217, Start Num: 18

Candidate Starts for Struggle\_83:

(Start: 18 @62645 has 43 MA's), (Start: 21 @62609 has 228 MA's), (Start: 22 @62573 has 1 MA's), (23, 62567), (25, 62552), (27, 62501), (30, 62381), (33, 62357), (34, 62348), (37, 62237), (39, 62225),

Gene: Suffolk\_80 Start: 62540, Stop: 62118, Start Num: 18

Candidate Starts for Suffolk\_80:

(15, 62615), (16, 62609), (Start: 18 @62540 has 43 MA's), (Start: 21 @62504 has 228 MA's), (Start: 22 @62468 has 1 MA's), (23, 62462), (25, 62447), (30, 62276), (33, 62252), (34, 62243), (37, 62132),

Gene: Surely\_83 Start: 63074, Stop: 62688, Start Num: 21

Candidate Starts for Surely\_83:

(Start: 18 @63110 has 43 MA's), (Start: 21 @63074 has 228 MA's), (Start: 22 @63038 has 1 MA's), (25, 63017), (27, 62966), (30, 62846), (33, 62822), (34, 62813), (37, 62702),

Gene: Swiphy\_85 Start: 63059, Stop: 62673, Start Num: 21

Candidate Starts for Swiphy\_85:

(Start: 18 @63095 has 43 MA's), (Start: 21 @63059 has 228 MA's), (Start: 22 @63023 has 1 MA's), (23, 63017), (25, 63002), (27, 62951), (30, 62831), (33, 62807), (34, 62798), (37, 62687),

Gene: Swish\_84 Start: 62919, Stop: 62533, Start Num: 21

Candidate Starts for Swish\_84:

(15, 63030), (16, 63024), (Start: 18 @62955 has 43 MA's), (Start: 21 @62919 has 228 MA's), (Start: 22 @62883 has 1 MA's), (25, 62862), (27, 62811), (30, 62691), (33, 62667), (37, 62547),

Gene: TallGrassMM\_82 Start: 62568, Stop: 62182, Start Num: 21

Candidate Starts for TallGrassMM\_82:

(6, 62895), (7, 62844), (8, 62820), (11, 62793), (12, 62772), (15, 62679), (16, 62673), (Start: 18 @62604 has 43 MA's), (Start: 21 @62568 has 228 MA's), (Start: 22 @62532 has 1 MA's), (23, 62526), (25, 62511), (27, 62460), (30, 62340), (33, 62316), (37, 62196),

Gene: Telesworld\_81 Start: 62646, Stop: 62260, Start Num: 21

Candidate Starts for Telesworld\_81:

(15, 62757), (16, 62751), (Start: 18 @62682 has 43 MA's), (Start: 21 @62646 has 228 MA's), (Start: 22 @62610 has 1 MA's), (23, 62604), (25, 62589), (27, 62538), (30, 62418), (33, 62394), (34, 62385), (37,



62274),

Gene: Thora\_82 Start: 63024, Stop: 62638, Start Num: 21

Candidate Starts for Thora\_82:

(Start: 18 @63060 has 43 MA's), (Start: 21 @63024 has 228 MA's), (Start: 22 @62988 has 1 MA's), (23, 62982), (25, 62967), (27, 62916), (30, 62796), (33, 62772), (34, 62763), (37, 62652),

Gene: ThreeOh3D2\_85 Start: 63177, Stop: 62791, Start Num: 21

Candidate Starts for ThreeOh3D2\_85:

(Start: 18 @63213 has 43 MA's), (Start: 21 @63177 has 228 MA's), (Start: 22 @63141 has 1 MA's), (23, 63135), (25, 63120), (27, 63069), (30, 62949), (33, 62925), (34, 62916), (37, 62805),

Gene: Thunderbird\_83 Start: 62765, Stop: 62379, Start Num: 21

Candidate Starts for Thunderbird\_83:

(15, 62876), (16, 62870), (Start: 18 @62801 has 43 MA's), (Start: 21 @62765 has 228 MA's), (Start: 22 @62729 has 1 MA's), (25, 62708), (27, 62657), (30, 62537), (33, 62513), (37, 62393),

Gene: Timmi\_82 Start: 62540, Stop: 62154, Start Num: 21

Candidate Starts for Timmi\_82:

(Start: 18 @62576 has 43 MA's), (Start: 21 @62540 has 228 MA's), (Start: 22 @62504 has 1 MA's), (23, 62498), (25, 62483), (27, 62432), (30, 62312), (33, 62288), (34, 62279), (37, 62168),

Gene: TomBombadil\_83 Start: 63067, Stop: 62681, Start Num: 21

Candidate Starts for TomBombadil\_83:

(Start: 18 @63103 has 43 MA's), (Start: 21 @63067 has 228 MA's), (Start: 22 @63031 has 1 MA's), (25, 63010), (27, 62959), (30, 62839), (33, 62815), (34, 62806), (37, 62695),

Gene: Tomlarah\_84 Start: 63410, Stop: 62988, Start Num: 18

Candidate Starts for Tomlarah\_84:

(Start: 18 @63410 has 43 MA's), (Start: 21 @63374 has 228 MA's), (Start: 22 @63338 has 1 MA's), (23, 63332), (25, 63317), (27, 63266), (30, 63146), (33, 63122), (34, 63113), (37, 63002),

Gene: Toni\_83 Start: 62970, Stop: 62584, Start Num: 21

Candidate Starts for Toni\_83:

(Start: 18 @63006 has 43 MA's), (Start: 21 @62970 has 228 MA's), (Start: 22 @62934 has 1 MA's), (23, 62928), (25, 62913), (27, 62862), (30, 62742), (33, 62718), (34, 62709), (37, 62598),

Gene: TooFast2Furius\_85 Start: 62930, Stop: 62544, Start Num: 21

Candidate Starts for TooFast2Furius\_85:

(15, 63041), (16, 63035), (Start: 18 @62966 has 43 MA's), (Start: 21 @62930 has 228 MA's), (Start: 22 @62894 has 1 MA's), (23, 62888), (25, 62873), (30, 62702), (33, 62678), (34, 62669), (37, 62558),

Gene: Tooj\_80 Start: 62183, Stop: 61797, Start Num: 21

Candidate Starts for Tooj\_80:

(17, 62237), (Start: 18 @62219 has 43 MA's), (Start: 21 @62183 has 228 MA's), (Start: 22 @62147 has 1 MA's), (25, 62126), (30, 61955), (33, 61931), (34, 61922), (37, 61811),

Gene: Triad\_85 Start: 62365, Stop: 61979, Start Num: 21

Candidate Starts for Triad\_85:

(13, 62521), (14, 62494), (17, 62419), (Start: 18 @62401 has 43 MA's), (Start: 21 @62365 has 228 MA's), (Start: 22 @62329 has 1 MA's), (23, 62323), (25, 62308), (30, 62137), (33, 62113), (34, 62104), (35, 62026), (37, 61993),

Gene: True\_81 Start: 62516, Stop: 62130, Start Num: 21

Candidate Starts for True\_81:

(Start: 18 @62552 has 43 MA's), (Start: 21 @62516 has 228 MA's), (Start: 22 @62480 has 1 MA's), (23, 62474), (25, 62459), (27, 62408), (30, 62288), (33, 62264), (34, 62255), (37, 62144),

Gene: Trypo\_84 Start: 63238, Stop: 62852, Start Num: 21

Candidate Starts for Trypo\_84:

(Start: 18 @63274 has 43 MA's), (Start: 21 @63238 has 228 MA's), (Start: 22 @63202 has 1 MA's), (23, 63196), (25, 63181), (27, 63130), (30, 63010), (33, 62986), (34, 62977), (37, 62866),

Gene: TyrionL\_83 Start: 62600, Stop: 62214, Start Num: 21

Candidate Starts for TyrionL\_83:

(Start: 18 @62636 has 43 MA's), (Start: 21 @62600 has 228 MA's), (Start: 22 @62564 has 1 MA's), (23, 62558), (25, 62543), (27, 62492), (30, 62372), (33, 62348), (34, 62339), (37, 62228),

Gene: UAch1\_84 Start: 62867, Stop: 62481, Start Num: 21

Candidate Starts for UAch1\_84:

(Start: 18 @62903 has 43 MA's), (Start: 21 @62867 has 228 MA's), (Start: 22 @62831 has 1 MA's), (23, 62825), (25, 62810), (27, 62759), (30, 62639), (33, 62615), (34, 62606), (37, 62495),

Gene: UncleHowie\_80 Start: 62204, Stop: 61818, Start Num: 21

Candidate Starts for UncleHowie\_80:

(Start: 18 @62240 has 43 MA's), (Start: 21 @62204 has 228 MA's), (Start: 22 @62168 has 1 MA's), (23, 62162), (25, 62147), (27, 62096), (30, 61976), (33, 61952), (34, 61943), (37, 61832),

Gene: Usavi\_84 Start: 63363, Stop: 62977, Start Num: 21

Candidate Starts for Usavi\_84:

(15, 63474), (16, 63468), (Start: 18 @63399 has 43 MA's), (Start: 21 @63363 has 228 MA's), (Start: 22 @63327 has 1 MA's), (23, 63321), (25, 63306), (30, 63135), (33, 63111), (34, 63102), (37, 62991),

Gene: Vaishali24\_84 Start: 62973, Stop: 62590, Start Num: 21

Candidate Starts for Vaishali24\_84:

(17, 63027), (Start: 18 @63009 has 43 MA's), (Start: 21 @62973 has 228 MA's), (Start: 22 @62937 has 1 MA's), (23, 62931), (25, 62916), (30, 62745), (33, 62721), (34, 62712),

Gene: Valjean\_82 Start: 62758, Stop: 62372, Start Num: 21

Candidate Starts for Valjean\_82:

(17, 62812), (Start: 18 @62794 has 43 MA's), (Start: 21 @62758 has 228 MA's), (Start: 22 @62722 has 1 MA's), (25, 62701), (30, 62530), (33, 62506), (34, 62497), (37, 62386),

Gene: Vaticameos\_80 Start: 61109, Stop: 60687, Start Num: 18

Candidate Starts for Vaticameos\_80:

(Start: 18 @61109 has 43 MA's), (Start: 21 @61073 has 228 MA's), (Start: 22 @61037 has 1 MA's), (23, 61031), (25, 61016), (27, 60965), (30, 60845), (33, 60821), (34, 60812), (37, 60701),

Gene: Veritas\_82 Start: 62680, Stop: 62294, Start Num: 21

Candidate Starts for Veritas\_82:

(15, 62791), (16, 62785), (Start: 18 @62716 has 43 MA's), (Start: 21 @62680 has 228 MA's), (Start: 22 @62644 has 1 MA's), (25, 62623), (27, 62572), (30, 62452), (33, 62428), (34, 62419), (37, 62308),

Gene: Virapocalypse\_84 Start: 62866, Stop: 62480, Start Num: 21

Candidate Starts for Virapocalypse\_84:

(Start: 18 @62902 has 43 MA's), (Start: 21 @62866 has 228 MA's), (Start: 22 @62830 has 1 MA's), (23, 62824), (25, 62809), (27, 62758), (30, 62638), (33, 62614), (34, 62605), (37, 62494),

Gene: Virgeve\_81 Start: 62486, Stop: 62100, Start Num: 21

Candidate Starts for Virgeve\_81:

(13, 62642), (Start: 18 @62522 has 43 MA's), (Start: 21 @62486 has 228 MA's), (Start: 22 @62450 has 1 MA's), (23, 62444), (25, 62429), (30, 62258), (33, 62234), (34, 62225), (37, 62114),

Gene: Vista\_82 Start: 62679, Stop: 62293, Start Num: 21

Candidate Starts for Vista\_82:

(15, 62790), (16, 62784), (Start: 18 @62715 has 43 MA's), (Start: 21 @62679 has 228 MA's), (Start: 22 @62643 has 1 MA's), (25, 62622), (27, 62571), (30, 62451), (33, 62427), (34, 62418), (37, 62307),

Gene: Vivaldi\_83 Start: 62944, Stop: 62558, Start Num: 21

Candidate Starts for Vivaldi\_83:

(15, 63055), (16, 63049), (Start: 18 @62980 has 43 MA's), (Start: 21 @62944 has 228 MA's), (Start: 22 @62908 has 1 MA's), (25, 62887), (27, 62836), (30, 62716), (33, 62692), (34, 62683), (37, 62572),

Gene: Vortex\_82 Start: 62786, Stop: 62400, Start Num: 21

Candidate Starts for Vortex\_82:

(Start: 18 @62822 has 43 MA's), (Start: 21 @62786 has 228 MA's), (Start: 22 @62750 has 1 MA's), (23, 62744), (25, 62729), (27, 62678), (30, 62558), (33, 62534), (34, 62525), (37, 62414),

Gene: Wallhey\_84 Start: 62786, Stop: 62400, Start Num: 21

Candidate Starts for Wallhey\_84:

(15, 62897), (16, 62891), (Start: 18 @62822 has 43 MA's), (Start: 21 @62786 has 228 MA's), (Start: 22 @62750 has 1 MA's), (25, 62729), (27, 62678), (30, 62558), (33, 62534), (34, 62525), (37, 62414),

Gene: Waterdiva\_84 Start: 63054, Stop: 62668, Start Num: 21

Candidate Starts for Waterdiva\_84:

(Start: 18 @63090 has 43 MA's), (Start: 21 @63054 has 228 MA's), (Start: 22 @63018 has 1 MA's), (23, 63012), (25, 62997), (27, 62946), (30, 62826), (33, 62802), (34, 62793), (37, 62682),

Gene: Weher20\_80 Start: 63124, Stop: 62738, Start Num: 21

Candidate Starts for Weher20\_80:

(Start: 18 @63160 has 43 MA's), (Start: 21 @63124 has 228 MA's), (Start: 22 @63088 has 1 MA's), (23, 63082), (25, 63067), (27, 63016), (30, 62896), (33, 62872), (34, 62863), (37, 62752),

Gene: Windsor\_83 Start: 63069, Stop: 62683, Start Num: 21

Candidate Starts for Windsor\_83:

(Start: 18 @63105 has 43 MA's), (Start: 21 @63069 has 228 MA's), (Start: 22 @63033 has 1 MA's), (23, 63027), (25, 63012), (27, 62961), (30, 62841), (33, 62817), (37, 62697),

Gene: Xavier\_83 Start: 62678, Stop: 62292, Start Num: 21

Candidate Starts for Xavier\_83:

(17, 62732), (Start: 18 @62714 has 43 MA's), (Start: 21 @62678 has 228 MA's), (Start: 22 @62642 has 1 MA's), (25, 62621), (27, 62570), (30, 62450), (33, 62426), (34, 62417), (37, 62306),

Gene: Yoshand\_84 Start: 62939, Stop: 62517, Start Num: 18

Candidate Starts for Yoshand\_84:

(15, 63014), (16, 63008), (Start: 18 @62939 has 43 MA's), (Start: 21 @62903 has 228 MA's), (Start: 22 @62867 has 1 MA's), (25, 62846), (27, 62795), (30, 62675), (33, 62651), (37, 62531),

Gene: YouGoGlencoco\_83 Start: 62794, Stop: 62408, Start Num: 21

Candidate Starts for YouGoGlencoco\_83:

(Start: 18 @62830 has 43 MA's), (Start: 21 @62794 has 228 MA's), (Start: 22 @62758 has 1 MA's), (23, 62752), (25, 62737), (27, 62686), (30, 62566), (33, 62542), (34, 62533), (37, 62422),

Gene: Zaider\_84 Start: 63168, Stop: 62782, Start Num: 21

Candidate Starts for Zaider\_84:

(Start: 18 @63204 has 43 MA's), (Start: 21 @63168 has 228 MA's), (Start: 22 @63132 has 1 MA's), (23, 63126), (25, 63111), (27, 63060), (30, 62940), (33, 62916), (34, 62907), (37, 62796),

Gene: Zelda\_83 Start: 63125, Stop: 62739, Start Num: 21

Candidate Starts for Zelda\_83:

(Start: 18 @63161 has 43 MA's), (Start: 21 @63125 has 228 MA's), (Start: 22 @63089 has 1 MA's), (23, 63083), (25, 63068), (27, 63017), (30, 62897), (33, 62873), (34, 62864), (37, 62753),

Gene: Zonia\_84 Start: 63234, Stop: 62848, Start Num: 21

Candidate Starts for Zonia\_84:

(15, 63345), (16, 63339), (Start: 18 @63270 has 43 MA's), (Start: 21 @63234 has 228 MA's), (Start: 22 @63198 has 1 MA's), (25, 63177), (27, 63126), (30, 63006), (33, 62982), (34, 62973), (37, 62862),