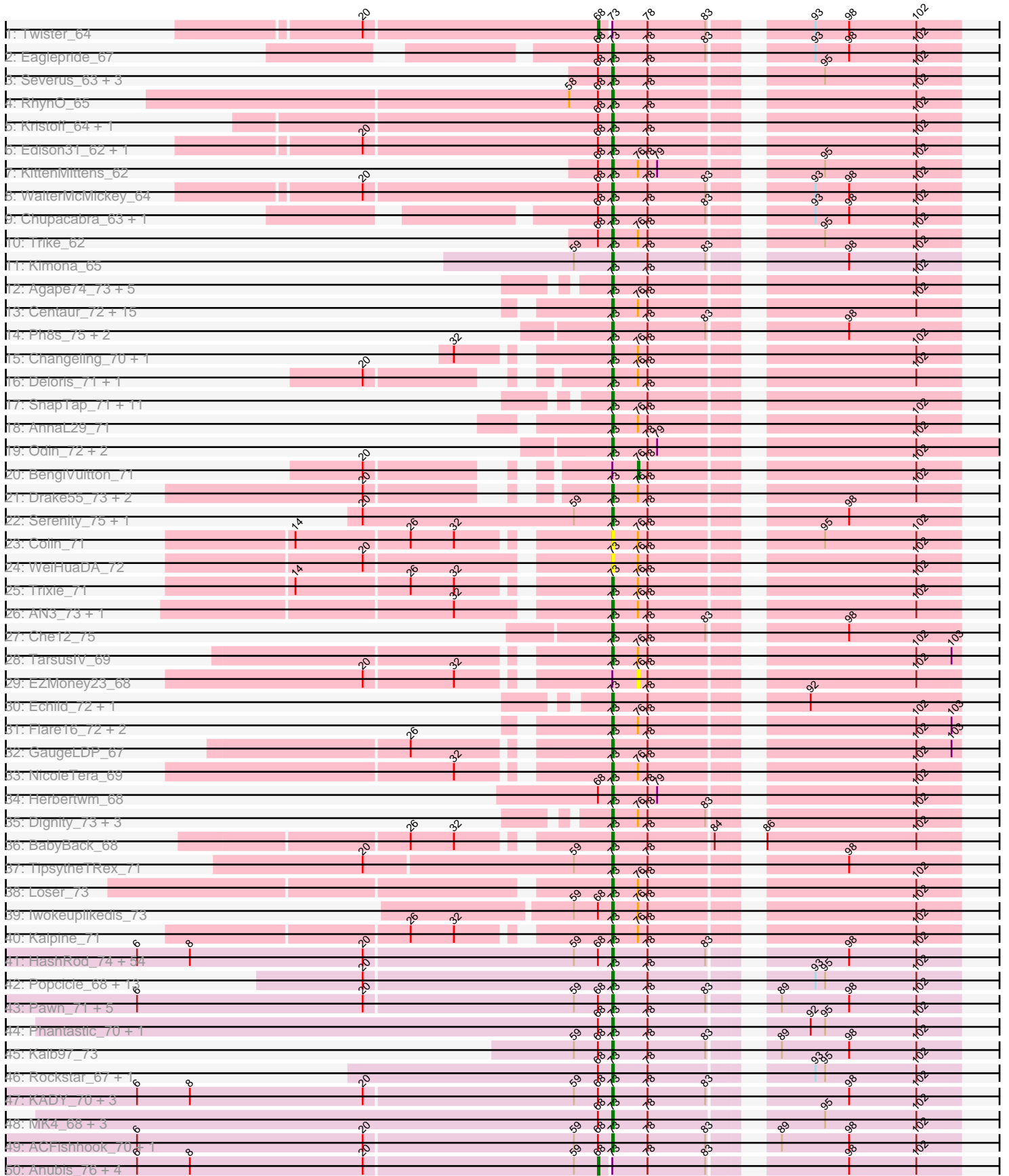
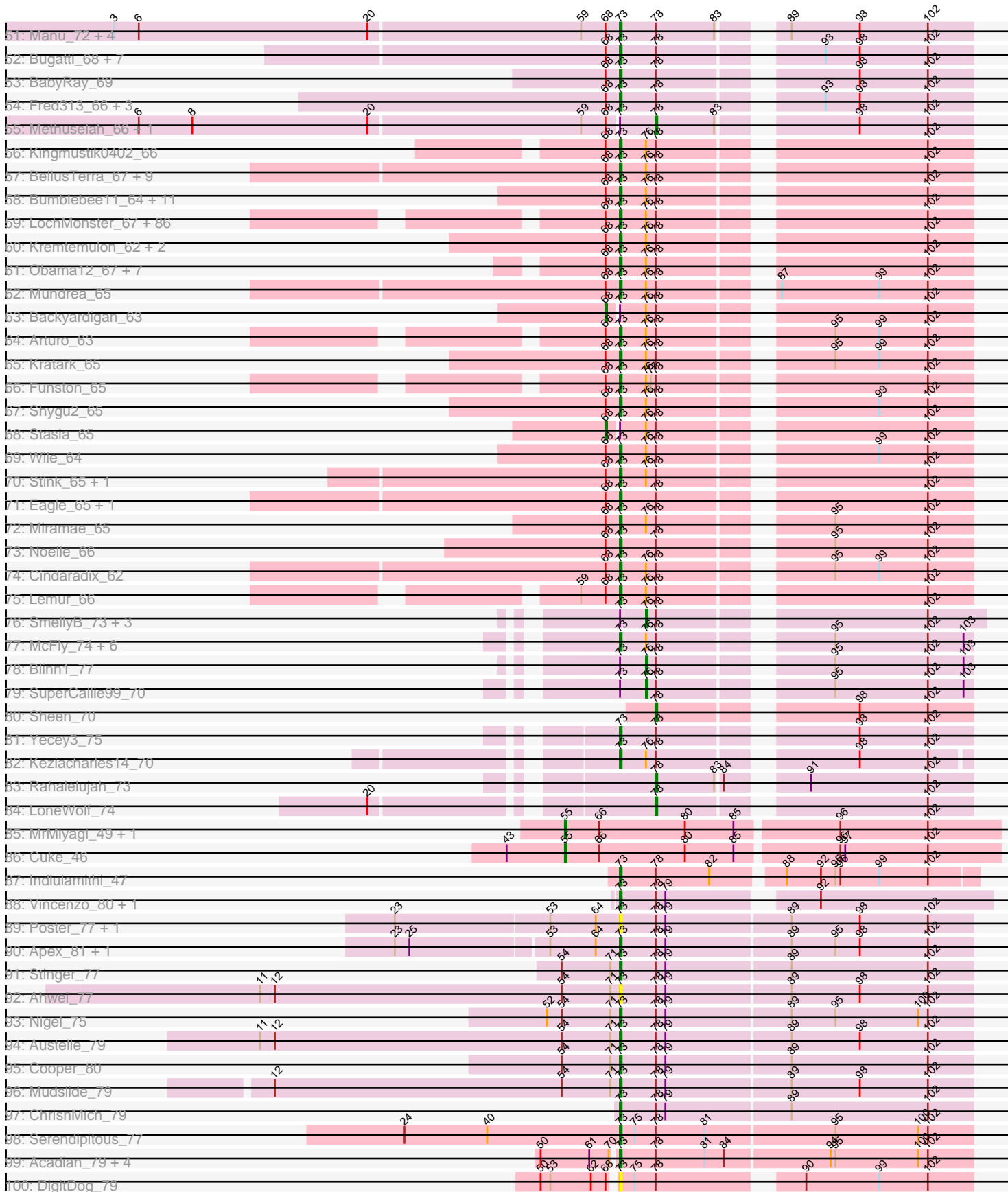


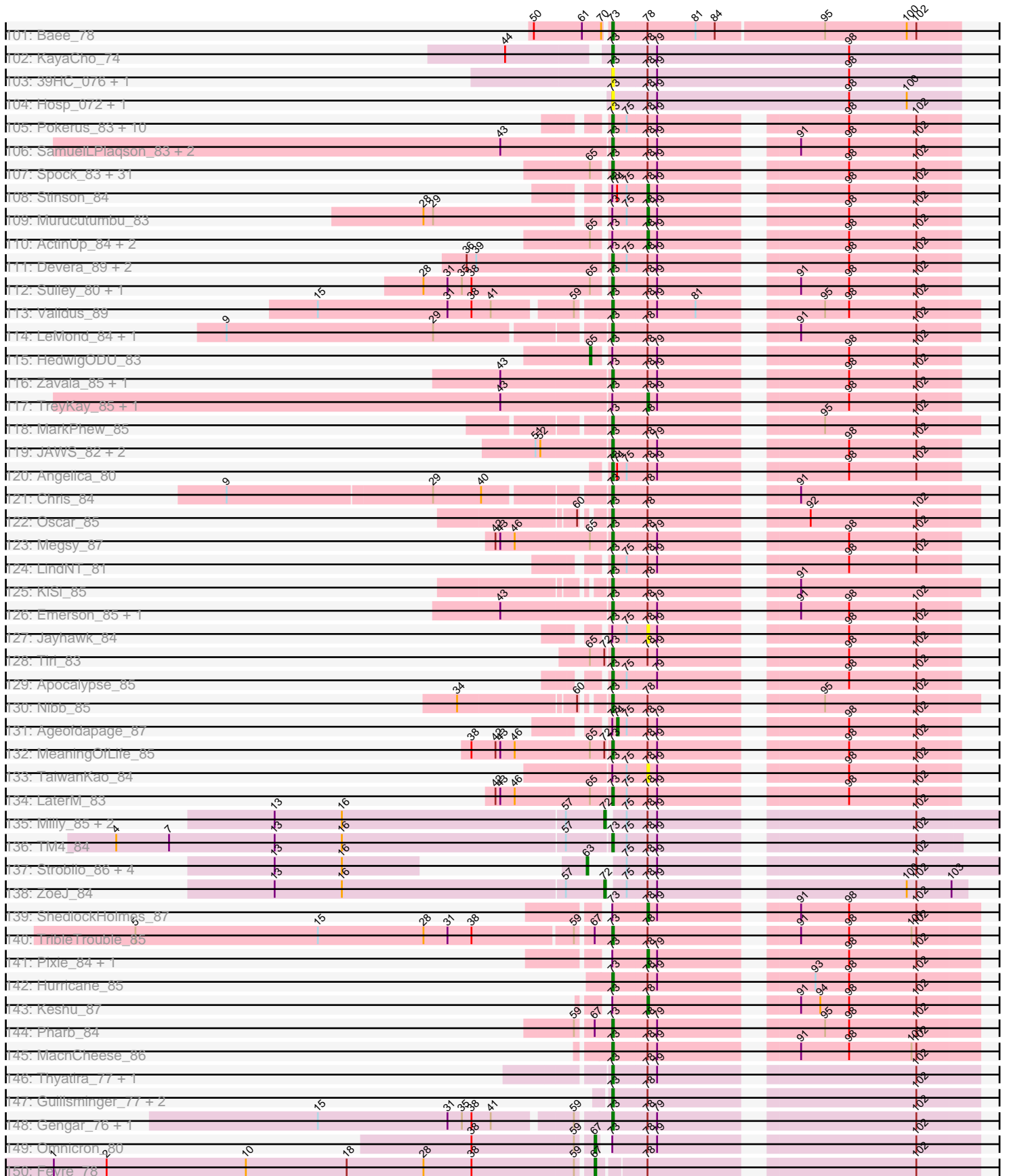
Pham 169579



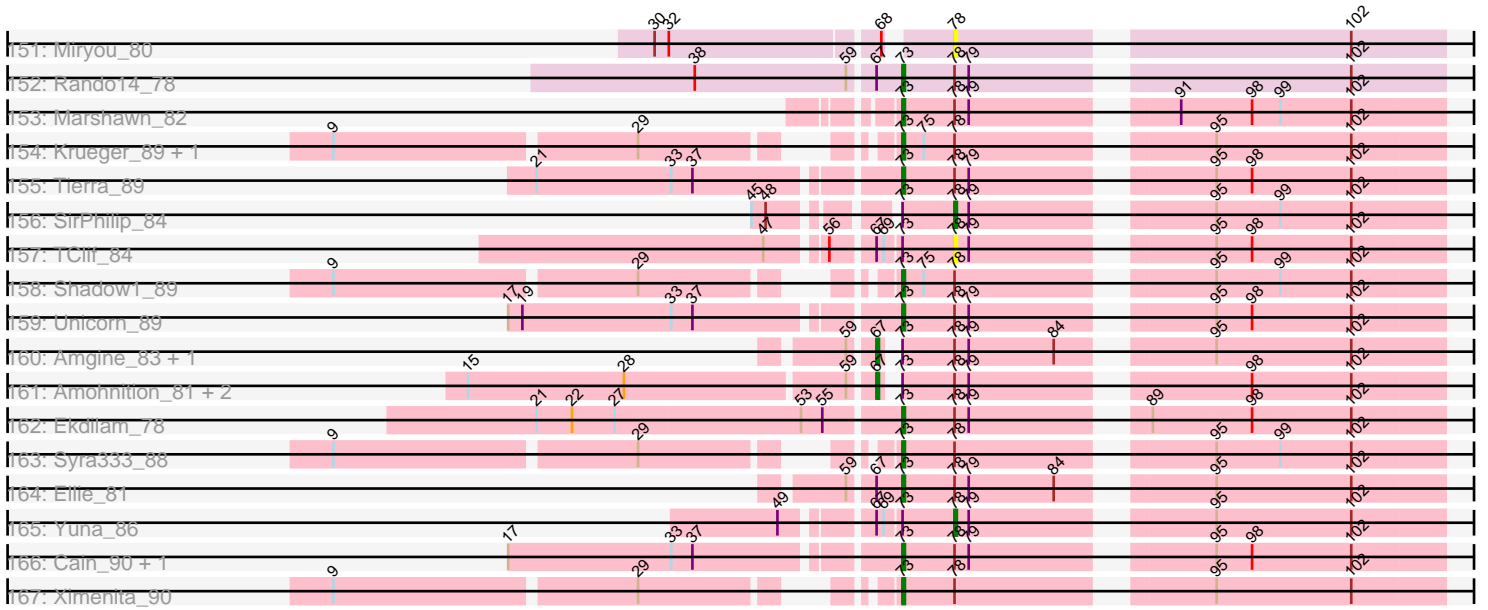
Pham 169579



Pham 169579



Pham 169579



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 169579 Report

This analysis was run 07/09/24 on database version 566.

Pham number 169579 has 526 members, 35 are drafts.

Phages represented in each track:

- Track 1 : Twister\_64
- Track 2 : Eaglepride\_67
- Track 3 : Severus\_63, PeaceMeal1\_63, Drake94\_63, Poompha\_62
- Track 4 : RhynO\_65
- Track 5 : Kristoff\_64, Rebeuca\_66
- Track 6 : Edison31\_62, Topanga\_62
- Track 7 : KittenMittens\_62
- Track 8 : WalterMcMickey\_64
- Track 9 : Chupacabra\_63, Goose\_66
- Track 10 : Trike\_62
- Track 11 : Kimona\_65
- Track 12 : Agape74\_73, Turbido\_72, AbbyPaige\_73, Bugsy\_73, Smeagan\_74, Whabigail7\_72
- Track 13 : Centaur\_72, Kazan\_74, 20ES\_73, WideWale\_72, GreedyLawyer\_69, First\_0072, Baehexic\_70, Piro94\_71, Kipper29\_73, Candra\_71, CRB1\_73, Hoot\_68, VohminGhazi\_73, Updawg\_72, Trooper\_71, Equemioh13\_71
- Track 14 : Ph8s\_75, Adzzy\_75, SwirlSquare\_78
- Track 15 : Changeling\_70, ArcherNM\_65
- Track 16 : Deloris\_71, LadyBird\_75
- Track 17 : SnapTap\_71, Dalmatian\_72, Crucio\_72, Retro23\_72, QueenBeesly\_72, DudeLittle\_70, Anselm\_73, Georgie2\_73, FiringLine\_72, Power\_71, SemperFi\_72, SweetiePie\_71
- Track 18 : AnnaL29\_71
- Track 19 : Odin\_72, Superchunk\_73, Caraxes\_74
- Track 20 : BengiVuitton\_71
- Track 21 : Drake55\_73, JoshKayV\_72, HarryHoudini\_72
- Track 22 : Serenity\_75, Jsquared\_75
- Track 23 : Colin\_71
- Track 24 : WeiHuaDA\_72
- Track 25 : Trixie\_71
- Track 26 : AN3\_73, VA6\_71
- Track 27 : Che12\_75
- Track 28 : TarsusIV\_69
- Track 29 : EZMoney23\_68
- Track 30 : Echild\_72, Benvolio\_69
- Track 31 : Flare16\_72, NaSiaTalie\_72, MiculUcigas\_72
- Track 32 : GaugeLDP\_67

- Track 33 : NicoleTera\_69
- Track 34 : Herbertwm\_68
- Track 35 : Dignity\_73, Jerm\_73, Leviathan\_73, LilTurb\_72
- Track 36 : BabyBack\_68
- Track 37 : TipsytheTRex\_71
- Track 38 : Loser\_73
- Track 39 : Iwokeuplikedis\_73
- Track 40 : Kalpine\_71
- Track 41 : HashRod\_74, Penny1\_73, Stagni\_70, MoneyMay\_72, Dieselweasel\_73, Taurus\_74, AgronaGT15\_70, MarQuardt\_73, Vix\_69, Rummer\_72, Aglet\_74, GingkoMaracino\_73, AugsMagnumOpus\_76, Snickers\_69, Beauxregard13\_72, SoilDragon\_72, Pembroke\_73, Soshari\_75, GtownJaz\_73, Lilith\_71, Sabia\_71, Bxz2\_68, Watson\_72, Malinsilva\_75, Phoxy\_73, Wooldri\_75, LBerry\_74, Hercules11\_73, Spike509\_73, SoYo\_70, JenCasNa\_74, Cullens\_73, Marie\_71, Fernando\_73, LugYA\_76, Grub\_71, DaHudson\_72, MadMarie\_71, LarryKay\_73, PGHhamlin\_75, PotatoSplit\_74, Zetzy\_70, P28Green\_73, EpicPhail\_74, Daishi\_72, StepMih\_72, Ollie\_73, BreSam8\_73, Grif\_71, Sabinator\_71, Colbster\_69, MuchMore\_76, Farber\_73, Grum1\_72, Phoebe\_74
- Track 42 : Popcicle\_68, Veracruz\_65, Norbert\_64, QuinnKiro\_67, Caviar\_68, Panamaxus\_66, Lambert1\_68, Todacoro\_68, Hookmount\_68, Pocahontas\_67, Texage\_66, Noella\_68, ResDef\_66, Margo\_68
- Track 43 : Pawn\_71, Heliosoles\_70, Kalnoky\_73, Marius\_73, Groupthink\_73, PurpleHaze\_72
- Track 44 : Phantastic\_70, Isca\_66
- Track 45 : Kalb97\_73
- Track 46 : Rockstar\_67, MA5\_68
- Track 47 : KADY\_70, Louie6\_72, BuzzBuzz\_67, Misomonster\_74
- Track 48 : MK4\_68, B1\_60, JF4\_66, JF2\_66
- Track 49 : ACFishhook\_70, JeppNRM\_73
- Track 50 : Anubis\_76, Mainiac\_72, Jobu08\_69, JHC117\_69, Tiffany\_72
- Track 51 : Manu\_72, OlanP\_71, PhishRPhriends\_69, HaveUMetTed\_73, Gemma\_70
- Track 52 : Bugatti\_68, Giroux\_67, TNguyen7\_69, Idleandcovert\_69, SaturnRing\_68, Puppy\_69, Pistachio\_68, BlueBird\_71
- Track 53 : BabyRay\_69
- Track 54 : Fred313\_66, Heathen\_68, HelDan\_68, Scout\_67
- Track 55 : Methuselah\_66, Microwolf\_69
- Track 56 : Kingmustik0402\_66
- Track 57 : BellusTerra\_67, TroyPia\_67, Eurydice\_67, Ohfah\_67, Polymorphads\_66, Nebs\_67, CentreCat\_66, Morrow\_67, Phelipe\_67, LeoAvram\_65
- Track 58 : Bumblebee11\_64, AbbysRanger\_65, PetiteSangsue\_65, Wizard007\_65, Morpher26\_65, Xena\_64, Katalie136\_65, Cici\_65, Datway\_65, Perplexer\_65, Achebe\_64, Badger\_64
- Track 59 : LochMonster\_67, Sparxx\_67, Eros\_66, Romney\_65, PeterPeter\_66, NorthStar\_64, Deano\_63, Eapen\_66, Alberto7\_67, Kyee\_66, KFPoly\_65, Connomayer\_66, Palestino\_65, Scamp\_66, Camperdownii\_64, LittleB\_66, Wilbur\_66, Phighter1804\_66, Ulysses\_65, Chaph\_66, Holli\_65, TygerBlood\_66, Citius\_66, NotAPhaseMom\_65, Caelakin\_65, Lunsford\_66, Skipitt\_65, Anyyong\_65, Phontbonne\_66, MeeZee\_65, Kampy\_65, Medusa\_66, Phacado\_66, OKaNui\_65, Sabertooth\_66, JoongJeon\_65, Mazhar510\_66, Burger\_64, LittleGuy\_66, Millski\_65, Peaches\_64, Taquarus\_65, Commander\_64, Bartimeaus\_66, Lorenzo\_66, YoSam321\_66, Relief\_65, Wander\_66, Albee\_66, Maxo\_67, Flux\_66, Maverick\_65, Eris\_65, Blackmoor\_65, TiroTheta9\_65, Clarenza\_65, Shaka\_64, Melvin\_68,

HamSlice\_62, Jaykayelowell\_63, Broseidon\_66, Abdiel\_66, Koreni\_65, Cocoaberry\_66, Gadost\_66, Nyxis\_65, Thanksgivukkah\_65, Baby16\_66, Tinybot\_65, LappelDuVide\_62, Iracema64\_66, DirtyDunning\_65, Houdini22\_65, Avle17\_66, Druantia\_65, Iceman\_65, Pumbaa\_66, Spino\_65, Bruiser\_65, Roosevelt\_64, TinaFeyge\_64, Ruin\_66, Florean\_66, Nemo27\_65, Bombshell\_66, Dhanush\_66, Pipcraft\_63

- Track 60 : Kremtemulon\_62, ICleared\_65, Cintron\_66
- Track 61 : Obama12\_67, LHTSCC\_68, ChampagnePapi\_68, Cerulean\_67, Happiness\_65, BangNhom\_64, SheldonCooper\_66, JetBlade\_66
- Track 62 : Mundrea\_65
- Track 63 : Backyardigan\_63
- Track 64 : Arturo\_63
- Track 65 : Kratak\_65
- Track 66 : Funston\_65
- Track 67 : Shygu2\_65
- Track 68 : Stasia\_65
- Track 69 : Wile\_64
- Track 70 : Stink\_65, AvatarAhPeg\_65
- Track 71 : Eagle\_65, BubbleTrouble\_65
- Track 72 : Miramae\_65
- Track 73 : Noelle\_66
- Track 74 : Cindaradix\_62
- Track 75 : Lemur\_66
- Track 76 : SmellyB\_73, EricB\_72, Chartreuse\_70, DaVinci\_71
- Track 77 : McFly\_74, Neeharika16\_72, Pmask\_72, BABullseye\_66, Dorothea\_70, Cookiedough\_73, SuperAwesome\_73
- Track 78 : Blinn1\_77
- Track 79 : SuperCallie99\_70
- Track 80 : Sheen\_70
- Track 81 : Yecey3\_75
- Track 82 : Keziacharles14\_70
- Track 83 : Rahalelujah\_73
- Track 84 : LoneWolf\_74
- Track 85 : MrMiyagi\_49, Fowlmouth\_50
- Track 86 : Cuke\_46
- Track 87 : Indlulamithi\_47
- Track 88 : Vincenzo\_80, AlanGrant\_81
- Track 89 : Poster\_77, Nanao\_78
- Track 90 : Apex\_81, BobbyK\_80
- Track 91 : Stinger\_77
- Track 92 : Ahwei\_77
- Track 93 : Nigel\_75
- Track 94 : Austelle\_79
- Track 95 : Cooper\_80
- Track 96 : Mudslide\_79
- Track 97 : ChrisnMich\_79
- Track 98 : Serendipitous\_77
- Track 99 : Acadian\_79, Suigeneris\_80, Rich\_77, SirJeffery\_77, EastView9101\_80
- Track 100 : DigitDog\_79
- Track 101 : Bae\_78
- Track 102 : KayaCho\_74
- Track 103 : 39HC\_076, 40BC\_076
- Track 104 : Hosp\_072, Jolie1\_074

- Track 105 : Pokerus\_83, CrimD\_83, BarrelRoll\_83, Geraldini\_85, BGlluviae\_82, Mynx\_84, CheetoDust\_83, Ganymede\_83, QuincyRose\_81, YoureAdopted\_82, Rapunzel97\_85
- Track 106 : SamuelLPlaqson\_83, DrHayes\_83, Urkel\_83
- Track 107 : Spock\_83, Twitch\_83, Rosmarinus\_83, CaseJules\_85, Padfoot\_83, CREW\_82, BaghaKamala\_82, Asayake\_83, Dalmuri\_83, Capricorn\_83, Tachez\_83, Piatt\_82, Atiba\_84, Hyperbowlee\_82, Adonis\_83, Jarvi\_83, Adephagia\_82, Boiiii\_83, TruffulaTree\_85, ShiaSurprise\_84, Peel\_83, Topper\_83, Joy99\_84, Blizzard\_83, BEEST\_83, Homura\_82, Lunahalos\_83, Inky\_83, Durfee\_83, Ramen\_84, Jeckyll\_83, Belladonna\_83
- Track 108 : Stinson\_84
- Track 109 : Murucutumbu\_83
- Track 110 : ActinUp\_84, Llorens\_82, Zabiza\_79
- Track 111 : Devera\_89, Illumine\_87, Dole\_86
- Track 112 : Sulley\_80, Deby\_83
- Track 113 : Validus\_89
- Track 114 : LeMond\_84, Scarlett\_84
- Track 115 : HedwigODU\_83
- Track 116 : Zavala\_85, Beezoo\_86
- Track 117 : TreyKay\_85, Prithvi\_85
- Track 118 : MarkPheW\_85
- Track 119 : JAWS\_82, Slimphazie\_85, Veliki\_84
- Track 120 : Angelica\_80
- Track 121 : Chris\_84
- Track 122 : Oscar\_85
- Track 123 : Megsy\_87
- Track 124 : LindNT\_81
- Track 125 : KiSi\_85
- Track 126 : Emerson\_85, Padpat\_86
- Track 127 : Jayhawk\_84
- Track 128 : Tiri\_83
- Track 129 : Apocalypse\_85
- Track 130 : Nibb\_85
- Track 131 : Ageofdapage\_87
- Track 132 : MeaningOfLife\_85
- Track 133 : TaiwanKao\_84
- Track 134 : LaterM\_83
- Track 135 : Milly\_85, BoostSeason\_84, Mufasa\_84
- Track 136 : TM4\_84
- Track 137 : Strobilo\_86, Marcoliusprime\_84, DismalFunk\_85, DismalStressor\_85, Findley\_85
- Track 138 : ZoeJ\_84
- Track 139 : ShedlockHolmes\_87
- Track 140 : TribbleTrouble\_85
- Track 141 : Pixie\_84, TBond007\_81
- Track 142 : Hurricane\_85
- Track 143 : Keshu\_87
- Track 144 : Pharb\_84
- Track 145 : MacnCheese\_86
- Track 146 : Thyatira\_77, Waterfoul\_76
- Track 147 : Guillsminger\_77, Leston\_76, Paola\_76
- Track 148 : Gengar\_76, OkiRoe\_77
- Track 149 : Omnicron\_80



- Track 150 : Feyre\_78
- Track 151 : Miryou\_80
- Track 152 : Rando14\_78
- Track 153 : Marshawn\_82
- Track 154 : Krueger\_89, Sunflower1121\_88
- Track 155 : Tierra\_89
- Track 156 : SirPhilip\_84
- Track 157 : TClif\_84
- Track 158 : Shadow1\_89
- Track 159 : Unicorn\_89
- Track 160 : Amgine\_83, Fefferhead\_83
- Track 161 : Amohntion\_81, Hammy\_81, DarthP\_81
- Track 162 : Ekdilam\_78
- Track 163 : Syra333\_88
- Track 164 : Ellie\_81
- Track 165 : Yuna\_86
- Track 166 : Cain\_90, Phrank\_90
- Track 167 : Ximenita\_90

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

The start number called the most often in the published annotations is 73, it was called in 440 of the 491 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_73, 39HC\_076, 40BC\_076, ACFishhook\_70, AN3\_73, AbbyPaige\_73, AbbysRanger\_65, Abdiel\_66, Acadian\_79, Achebe\_64, Adephagia\_82, Adonis\_83, Adzzy\_75, Agape74\_73, Aglet\_74, AgronaGT15\_70, Ahwei\_77, AlanGrant\_81, Albee\_66, Alberto7\_67, Angelica\_80, AnnaL29\_71, Annyong\_65, Anselm\_73, Apex\_81, Apocalypse\_85, ArcherNM\_65, Arturo\_63, Asayake\_83, Atiba\_84, AugsMagnumOpus\_76, Austelle\_79, AvatarAhPeg\_65, Avle17\_66, B1\_60, BABullseye\_66, BEEST\_83, BGlluviae\_82, Baby16\_66, BabyBack\_68, BabyRay\_69, Badger\_64, Bae\_78, Baehexic\_70, BaghaKamala\_82, BangNhom\_64, BarrelRoll\_83, Bartimeaus\_66, Beauxregard13\_72, Beezoo\_86, Belladonna\_83, BellusTerra\_67, Benvolio\_69, Blackmoor\_65, Blizzard\_83, BlueBird\_71, BobbyK\_80, Boiiii\_83, Bombshell\_66, BreSam8\_73, Broseidon\_66, Bruiser\_65, BubbleTrouble\_65, Bugatti\_68, Buggy\_73, Bumblebee11\_64, Burger\_64, BuzzBuzz\_67, Bxz2\_68, CRB1\_73, CREW\_82, Caelakin\_65, Cain\_90, Camperdownii\_64, Candra\_71, Capricorn\_83, Caraxes\_74, CaseJules\_85, Caviar\_68, Centaur\_72, CentreCat\_66, Cerulean\_67, ChampagnePapi\_68, Changeling\_70, Chaph\_66, Che12\_75, CheetoDust\_83, Chris\_84, ChrisnMich\_79, Chupacabra\_63, Cici\_65, Cindaradix\_62, Cintron\_66, Citius\_66, Clarenza\_65, Cocoaberry\_66, Colbster\_69, Colin\_71, Commander\_64, Connomayer\_66, Cookiedough\_73, Cooper\_80, CrimD\_83, Crucio\_72, Cullens\_73, DaHudson\_72, Daishi\_72, Dalmatian\_72, Dalmuri\_83, Datway\_65, Deano\_63, Deby\_83, Deloris\_71, Devera\_89, Dhanush\_66, Dieselweasel\_73, DigitDog\_79, Dignity\_73, DirtyDunning\_65, Dole\_86, Dorothea\_70, DrHayes\_83, Drake55\_73, Drake94\_63, Druantia\_65, DudeLittle\_70, Durfee\_83, Eagle\_65, Eaglepride\_67, Eapen\_66, EastView9101\_80, Echid\_72, Edison31\_62, Ekdilam\_78, Ellie\_81, Emerson\_85, EpicPhail\_74, Equemioh13\_71, Eris\_65, Eros\_66, Eurydice\_67, Farber\_73,

Fernando\_73, FiringLine\_72, First\_0072, Flare16\_72, Florean\_66, Flux\_66, Fred313\_66, Funston\_65, Gadost\_66, Ganymede\_83, GaugeLDP\_67, Gemma\_70, Gengar\_76, Georgie2\_73, Geraldini\_85, GingkoMaracino\_73, Giroux\_67, Goose\_66, GreedyLawyer\_69, Grif\_71, Groupthink\_73, Grub\_71, Grum1\_72, GtownJaz\_73, Guillsminger\_77, HamSlice\_62, Happiness\_65, HarryHoudini\_72, HashRod\_74, HaveUMetTed\_73, Heathen\_68, HelDan\_68, Heliosoles\_70, Herbertwm\_68, Hercules11\_73, Holli\_65, Homura\_82, Hookmount\_68, Hoot\_68, Hosp\_072, Houdini22\_65, Hurricane\_85, Hyperbowlee\_82, ICleared\_65, Iceman\_65, Idleandcovert\_69, Illumine\_87, Indulamithi\_47, Inky\_83, Iracema64\_66, Isca\_66, Iwokeuplikedis\_73, JAWS\_82, JF2\_66, JF4\_66, Jarvi\_83, Jaykayelowell\_63, Jeckyll\_83, JenCasNa\_74, JeppNRM\_73, Jerm\_73, JetBlade\_66, Jolie1\_074, JoongJeon\_65, JoshKayV\_72, Joy99\_84, Jsquared\_75, KADY\_70, KFPoly\_65, Kalb97\_73, Kalnoky\_73, Kalpine\_71, Kampy\_65, Katalie136\_65, KayaCho\_74, Kazan\_74, Keziacharles14\_70, KiSi\_85, Kimona\_65, Kingmustik0402\_66, Kipper29\_73, KittenMittens\_62, Koreni\_65, Kratak\_65, Kremtemulon\_62, Kristoff\_64, Krueger\_89, Kyee\_66, LBerry\_74, LHTSCC\_68, LadyBird\_75, Lambert1\_68, LappelDuVide\_62, LarryKay\_73, LaterM\_83, LeMond\_84, Lemur\_66, LeoAvram\_65, Leston\_76, Leviathan\_73, LilTurb\_72, Lilith\_71, LindNT\_81, LittleB\_66, LittleGuy\_66, LochMonster\_67, Lorenzo\_66, Loser\_73, Louie6\_72, LugYA\_76, Lunahalos\_83, Lunsford\_66, MA5\_68, MK4\_68, MacnCheese\_86, MadMarie\_71, Malinsilva\_75, Manu\_72, MarQuardt\_73, Margo\_68, Marie\_71, Marius\_73, MarkPhew\_85, Marshawn\_82, Maverick\_65, Maxo\_67, Mazhar510\_66, McFly\_74, MeaningOfLife\_85, Medusa\_66, MeeZee\_65, Megsy\_87, Melvin\_68, MiculUcigas\_72, Millski\_65, Miramae\_65, Misomonster\_74, MoneyMay\_72, Morpher26\_65, Morrow\_67, MuchMore\_76, Mudslide\_79, Mundrea\_65, Mynx\_84, NaSiaTalie\_72, Nanao\_78, Nebs\_67, Neeharika16\_72, Nemo27\_65, Nibb\_85, NicoleTera\_69, Nigel\_75, Noella\_68, Noelle\_66, Norbert\_64, NorthStar\_64, NotAPhaseMom\_65, Nyxis\_65, OKaNui\_65, Obama12\_67, Odin\_72, Ohfah\_67, OkiRoe\_77, OlanP\_71, Ollie\_73, Oscar\_85, P28Green\_73, PGHhamlin\_75, Padfoot\_83, Padpat\_86, Palestino\_65, Panamaxus\_66, Paola\_76, Pawn\_71, PeaceMeal1\_63, Peaches\_64, Peel\_83, Pembroke\_73, Penny1\_73, Perplexer\_65, PeterPeter\_66, PetiteSangsue\_65, Ph8s\_75, Phacado\_66, Phantastic\_70, Pharb\_84, Felipe\_67, Phighter1804\_66, PhishRPhriends\_69, Phoebe\_74, Phontbonne\_66, Phoxy\_73, Phrank\_90, Piatt\_82, Pipcraft\_63, Piro94\_71, Pistachio\_68, Pmask\_72, Pocahontas\_67, Pokerus\_83, Polymorphads\_66, Poompha\_62, Popcicle\_68, Poster\_77, PotatoSplit\_74, Power\_71, Pumbaa\_66, Puppy\_69, PurpleHaze\_72, QueenBeesly\_72, QuincyRose\_81, QuinnKiro\_67, Ramen\_84, Rando14\_78, Rapunzel97\_85, Rebeuca\_66, Relief\_65, ResDef\_66, Retro23\_72, RhynO\_65, Rich\_77, Rockstar\_67, Romney\_65, Roosevelt\_64, Rosmarinus\_83, Ruin\_66, Rummer\_72, Sabertooth\_66, Sabia\_71, Sabinator\_71, SamuelLPlaqson\_83, SaturnRing\_68, Scamp\_66, Scarlett\_84, Scout\_67, SemperFi\_72, Serendipitous\_77, Serenity\_75, Severus\_63, Shadow1\_89, Shaka\_64, SheldonCooper\_66, ShiaSurprise\_84, Shygu2\_65, SirJeffery\_77, Skipitt\_65, Slimphazie\_85, Smeagan\_74, SnapTap\_71, Snickers\_69, SoYo\_70, SoilDragon\_72, Soshari\_75, Sparxx\_67, Spike509\_73, Spino\_65, Spock\_83, Stagni\_70, StepMih\_72, Stinger\_77, Stink\_65, Suigeneris\_80, Sulley\_80, Sunflower1121\_88, SuperAwesome\_73, Superchunk\_73, SweetiePie\_71, SwirlSquare\_78, Syra333\_88, TM4\_84, TNguyen7\_69, Tachez\_83, Taquarus\_65, TarsusIV\_69, Taurus\_74, Texage\_66, Thanksgivukkah\_65, Thyatira\_77, Tierra\_89, TinaFeyge\_64, Tinybot\_65, TipsytheTRex\_71, Tiri\_83, TiroTheta9\_65, Todacoro\_68, Topanga\_62, Topper\_83, TribbleTrouble\_85, Trike\_62, Trixie\_71, Trooper\_71, TroyPia\_67, TruffulaTree\_85, Turbido\_72, Twitch\_83, TygerBlood\_66, Ulysses\_65, Unicorn\_89, Updawg\_72, Urkel\_83, VA6\_71, Validus\_89, Veliki\_84, Veracruz\_65, Vincenzo\_80, Vix\_69,

VohminGhazi\_73, WalterMcMickey\_64, Wander\_66, Waterfoul\_76, Watson\_72, WeiHuaDA\_72, Whabigail7\_72, WideWale\_72, Wilbur\_66, Wile\_64, Wizard007\_65, Wooldri\_75, Xena\_64, Ximenita\_90, Yecey3\_75, YoSam321\_66, YoureAdopted\_82, Zavala\_85, Zetzy\_70,

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

- ActinUp\_84, Ageofdapage\_87, Amgine\_83, Amohnition\_81, Anubis\_76, Backyardigan\_63, BengiVuitton\_71, Blinn1\_77, Chartreuse\_70, DaVinci\_71, DarthP\_81, EZMoney23\_68, EricB\_72, Fefferhead\_83, Hammy\_81, HedwigODU\_83, JHC117\_69, Jayhawk\_84, Jobu08\_69, Keshu\_87, Llorens\_82, Mainiac\_72, Methuselah\_66, Microwolf\_69, Murucutumbu\_83, Omnicron\_80, Pixie\_84, Prithvi\_85, ShedlockHolmes\_87, SirPhilip\_84, SmellyB\_73, Stasia\_65, Stinson\_84, SuperCallie99\_70, TBond007\_81, TClif\_84, TaiwanKao\_84, Tiffany\_72, TreyKay\_85, Twister\_64, Yuna\_86, Zabiza\_79,

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

- BoostSeason\_84, Cuke\_46, DismalFunk\_85, DismalStressor\_85, Feyre\_78, Findley\_85, Fowlmouth\_50, LoneWolf\_74, Marcoliusprime\_84, Milly\_85, Miryou\_80, MrMiyagi\_49, Mufasa\_84, Rahalelujah\_73, Sheen\_70, Strobilo\_86, ZoeJ\_84,

### Summary by start number:

Start 55:

- Found in 4 of 526 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 3 of 491
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Cuke\_46 (AC), Fowlmouth\_50 (AC), MrMiyagi\_49 (AC),

Start 63:

- Found in 5 of 526 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 5 of 491
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DismalFunk\_85 (K2), DismalStressor\_85 (K2), Findley\_85 (K2), Marcoliusprime\_84 (K2), Strobilo\_86 (K2),

Start 65:

- Found in 42 of 526 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 1 of 491
- Called 2.4% of time when present
- Phage (with cluster) where this start called: HedwigODU\_83 (K1),

Start 67:

- Found in 13 of 526 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 7 of 491
- Called 53.8% of time when present
- Phage (with cluster) where this start called: Amgine\_83 (K6), Amohnition\_81 (K6), DarthP\_81 (K6), Fefferhead\_83 (K6), Feyre\_78 (K5), Hammy\_81 (K6), Omnicron\_80 (K5),

Start 68:

- Found in 258 of 526 ( 49.0% ) of genes in pham
- Manual Annotations of this start: 8 of 491

- Called 3.1% of time when present
- Phage (with cluster) where this start called: Anubis\_76 (A3), Backyardigan\_63 (A4), JHC117\_69 (A3), Jobu08\_69 (A3), Mainiac\_72 (A3), Stasia\_65 (A4), Tiffany\_72 (A3), Twister\_64 (A10),

#### Start 72:

- Found in 6 of 526 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 4 of 491
- Called 66.7% of time when present
- Phage (with cluster) where this start called: BoostSeason\_84 (K2), Milly\_85 (K2), Mufasa\_84 (K2), ZoeJ\_84 (K2),

#### Start 73:

- Found in 509 of 526 ( 96.8% ) of genes in pham
- Manual Annotations of this start: 440 of 491
- Called 91.7% of time when present
- Phage (with cluster) where this start called: 20ES\_73 (A2), 39HC\_076 (B6), 40BC\_076 (B6), ACFishhook\_70 (A3), AN3\_73 (A2), AbbyPaige\_73 (A2), AbbysRanger\_65 (A4), Abdiel\_66 (A4), Acadian\_79 (B5), Achebe\_64 (A4), Adepagia\_82 (K1), Adonis\_83 (K1), Adzzy\_75 (A2), Agape74\_73 (A2), Aglet\_74 (A3), AgronaGT15\_70 (A3), Ahwei\_77 (B4), AlanGrant\_81 (B4), Albee\_66 (A4), Alberto7\_67 (A4), Angelica\_80 (K1), AnnaL29\_71 (A2), Annyong\_65 (A4), Anselm\_73 (A2), Apex\_81 (B4), Apocalypse\_85 (K1), ArcherNM\_65 (A2), Arturo\_63 (A4), Asayake\_83 (K1), Atiba\_84 (K1), AugsMagnumOpus\_76 (A3), Austelle\_79 (B4), AvatarAhPeg\_65 (A4), Avle17\_66 (A4), B1\_60 (A3), BABullseye\_66 (A6), BEEEST\_83 (K1), BGlluviae\_82 (K1), Baby16\_66 (A4), BabyBack\_68 (A2), BabyRay\_69 (A3), Badger\_64 (A4), Bae\_78 (B5), Baehexic\_70 (A2), BaghaKamala\_82 (K1), BangNhom\_64 (A4), BarrelRoll\_83 (K1), Bartimeaus\_66 (A4), Beauxregard13\_72 (A3), Beezoo\_86 (K1), Belladonna\_83 (K1), BellusTerra\_67 (A4), Benvolio\_69 (A2), Blackmoor\_65 (A4), Blizzard\_83 (K1), BlueBird\_71 (A3), BobbyK\_80 (B4), Boiii\_83 (K1), Bombshell\_66 (A4), BreSam8\_73 (A3), Broseidon\_66 (A4), Bruiser\_65 (A4), BubbleTrouble\_65 (A4), Bugatti\_68 (A3), Buggy\_73 (A2), Bumblebee11\_64 (A4), Burger\_64 (A4), BuzzBuzz\_67 (A3), Bxz2\_68 (A3), CRB1\_73 (A2), CREW\_82 (K1), Caelakin\_65 (A4), Cain\_90 (K6), Camperdownii\_64 (A4), Candra\_71 (A6), Capricorn\_83 (K1), Caraxes\_74 (A2), CaseJules\_85 (K1), Caviar\_68 (A3), Centaur\_72 (A2), CentreCat\_66 (A4), Cerulean\_67 (A4), ChampagnePapi\_68 (A4), Changeling\_70 (A2), Chaph\_66 (A4), Che12\_75 (A2), CheetoDust\_83 (K1), Chris\_84 (K1), ChrisnMich\_79 (B4), Chupacabra\_63 (A10), Cici\_65 (A4), Cindaradix\_62 (A4), Cintron\_66 (A4), Citius\_66 (A4), Clarenza\_65 (A4), Cocoaberry\_66 (A4), Colbster\_69 (A3), Colin\_71 (A2), Commander\_64 (A4), Connomayer\_66 (A4), Cookiedough\_73 (A6), Cooper\_80 (B4), CrimD\_83 (K1), Crucio\_72 (A2), Cullens\_73 (A3), DaHudson\_72 (A3), Daishi\_72 (A3), Dalmatian\_72 (A2), Dalmuri\_83 (K1), Datway\_65 (A4), Deano\_63 (A4), Deby\_83 (K1), Deloris\_71 (A2), Devera\_89 (K1), Dhanush\_66 (A4), Dieselweasel\_73 (A3), DigitDog\_79 (B5), Dignity\_73 (A2), DirtyDunning\_65 (A4), Dole\_86 (K1), Dorothea\_70 (A6), DrHayes\_83 (K1), Drake55\_73 (A2), Drake94\_63 (A10), Druantia\_65 (A4), DudeLittle\_70 (A2), Durfee\_83 (K1), Eagle\_65 (A4), Eaglepride\_67 (A10), Eapen\_66 (A4), EastView9101\_80 (B5), Echidna\_72 (A2), Edison31\_62 (A10), Ekdilam\_78 (K6), Ellie\_81 (K6), Emerson\_85 (K1), EpicPhail\_74 (A3), Equemioh13\_71 (A2), Eris\_65 (A4), Eros\_66 (A4), Eurydice\_67 (A4), Farber\_73 (A3), Fernando\_73 (A3), FiringLine\_72 (A2), First\_0072 (A2), Flare16\_72 (A2), Florean\_66 (A4), Flux\_66 (A4), Fred313\_66 (A3), Funston\_65 (A4), Gadost\_66 (A4), Ganymede\_83 (K1), GaugeLDP\_67 (A2), Gemma\_70 (A3), Gengar\_76 (K5), Georgie2\_73 (A2),

Geraldini\_85 (K1), GingkoMaracino\_73 (A3), Giroux\_67 (A3), Goose\_66 (A10), GreedyLawyer\_69 (A6), Grif\_71 (A3), Groupthink\_73 (A3), Grub\_71 (A3), Grum1\_72 (A3), GtownJaz\_73 (A3), Guillsminger\_77 (K5), HamSlice\_62 (A4), Happiness\_65 (A4), HarryHoudini\_72 (A2), HashRod\_74 (A3), HaveUMetTed\_73 (A3), Heathen\_68 (A3), HelDan\_68 (A3), Heliosoles\_70 (A3), Herbertwm\_68 (A2), Hercules11\_73 (A3), Holli\_65 (A4), Homura\_82 (K1), Hookmount\_68 (A3), Hoot\_68 (A6), Hosp\_072 (B6), Houdini22\_65 (A4), Hurricane\_85 (K3), Hyperbowlee\_82 (K1), ICleared\_65 (A4), Iceman\_65 (A4), Idleandcovert\_69 (A3), Illumine\_87 (K1), Indulamithi\_47 (AC), Inky\_83 (K1), Iracema64\_66 (A4), Isca\_66 (A3), Iwokeuplikedis\_73 (A2), JAWS\_82 (K1), JF2\_66 (A3), JF4\_66 (A3), Jarvi\_83 (K1), Jaykayelowell\_63 (A4), Jeckyll\_83 (K1), JenCasNa\_74 (A3), JeppNRM\_73 (A3), Jerm\_73 (A2), JetBlade\_66 (A4), Jolie1\_074 (B6), JoongJeon\_65 (A4), JoshKayV\_72 (A2), Joy99\_84 (K1), Jsquared\_75 (A2), KADY\_70 (A3), KFPoly\_65 (A4), Kalb97\_73 (A3), Kainoky\_73 (A3), Kalpine\_71 (A2), Kampy\_65 (A4), Katalie136\_65 (A4), KayaCho\_74 (B6), Kazan\_74 (A6), Keziacharles14\_70 (A9), KiSi\_85 (K1), Kimona\_65 (A19), Kingmustik0402\_66 (A4), Kipper29\_73 (A6), KittenMittens\_62 (A10), Koreni\_65 (A4), Kratak\_65 (A4), Kremtemulon\_62 (A4), Kristoff\_64 (A10), Krueger\_89 (K6), Kyee\_66 (A4), LBerry\_74 (A3), LHTSCC\_68 (A4), LadyBird\_75 (A2), Lambert1\_68 (A3), LappelDuVide\_62 (A4), LarryKay\_73 (A3), LaterM\_83 (K1), LeMond\_84 (K1), Lemur\_66 (A4), LeoAvram\_65 (A4), Leston\_76 (K5), Leviathan\_73 (A2), LilTurb\_72 (A2), Lilith\_71 (A3), LindNT\_81 (K1), LittleB\_66 (A4), LittleGuy\_66 (A4), LochMonster\_67 (A4), Lorenzo\_66 (A4), Loser\_73 (A2), Louie6\_72 (A3), LugYA\_76 (A3), Lunahalos\_83 (K1), Lunsford\_66 (A4), MA5\_68 (A3), MK4\_68 (A3), MacnCheese\_86 (K3), MadMarie\_71 (A3), Malinsilva\_75 (A3), Manu\_72 (A3), MarQuardt\_73 (A3), Margo\_68 (A3), Marie\_71 (A3), Marius\_73 (A3), MarkPhew\_85 (K1), Marshawn\_82 (K6), Maverick\_65 (A4), Maxo\_67 (A4), Mazhar510\_66 (A4), McFly\_74 (A6), MeaningOfLife\_85 (K1), Medusa\_66 (A4), MeeZee\_65 (A4), Megsy\_87 (K1), Melvin\_68 (A4), MiculUcigas\_72 (A2), Millski\_65 (A4), Miramae\_65 (A4), Misomonster\_74 (A3), MoneyMay\_72 (A3), Morpher26\_65 (A4), Morrow\_67 (A4), MuchMore\_76 (A3), Mudslide\_79 (B4), Mundrea\_65 (A4), Mynx\_84 (K1), NaSiaTalie\_72 (A2), Nanao\_78 (B4), Nebs\_67 (A4), Neeharika16\_72 (A6), Nemo27\_65 (A4), Nibb\_85 (K1), NicoleTera\_69 (A2), Nigel\_75 (B4), Noella\_68 (A3), Noelle\_66 (A4), Norbert\_64 (A3), NorthStar\_64 (A4), NotAPhaseMom\_65 (A4), Nyxis\_65 (A4), OKaNui\_65 (A4), Obama12\_67 (A4), Odin\_72 (A2), Ohfah\_67 (A4), OkiRoe\_77 (K5), OlanP\_71 (A3), Ollie\_73 (A3), Oscar\_85 (K1), P28Green\_73 (A3), PGHhamlin\_75 (A3), Padfoot\_83 (K1), Padpat\_86 (K1), Palestino\_65 (A4), Panamaxus\_66 (A3), Paola\_76 (K5), Pawn\_71 (A3), PeaceMeal1\_63 (A10), Peaches\_64 (A4), Peel\_83 (K1), Pembroke\_73 (A3), Penny1\_73 (A3), Perplexer\_65 (A4), PeterPeter\_66 (A4), PetiteSangsue\_65 (A4), Ph8s\_75 (A2), Phacado\_66 (A4), Phantastic\_70 (A3), Pharb\_84 (K3), Phelipe\_67 (A4), Phighter1804\_66 (A4), PhishRPhriends\_69 (A3), Phoebe\_74 (A3), Phontbonne\_66 (A4), Phoxy\_73 (A3), Phrank\_90 (K6), Piatt\_82 (K1), Pipcraft\_63 (A4), Piro94\_71 (A2), Pistachio\_68 (A3), Pmask\_72 (A6), Pocahontas\_67 (A3), Pokerus\_83 (K1), Polymorphads\_66 (A4), Poompha\_62 (A10), Popcicle\_68 (A3), Poster\_77 (B4), PotatoSplit\_74 (A3), Power\_71 (A2), Pumbaa\_66 (A4), Puppy\_69 (A3), PurpleHaze\_72 (A3), QueenBeesly\_72 (A2), QuincyRose\_81 (K1), QuinnKiro\_67 (A3), Ramen\_84 (K1), Rando14\_78 (K5), Rapunzel97\_85 (K1), Rebeuca\_66 (A10), Relief\_65 (A4), ResDef\_66 (A3), Retro23\_72 (A2), RhynO\_65 (A10), Rich\_77 (B5), Rockstar\_67 (A3), Romney\_65 (A4), Roosevelt\_64 (A4), Rosmarinus\_83 (K1), Ruin\_66 (A4), Rummer\_72 (A3), Sabertooth\_66 (A4), Sabia\_71 (A3), Sabinator\_71 (A3), SamuelLPlaqson\_83 (K1), SaturnRing\_68 (A3), Scamp\_66 (A4), Scarlett\_84 (K1), Scout\_67 (A3), SemperFi\_72 (A2), Serendipitous\_77 (B5), Serenity\_75 (A2), Severus\_63 (A10), Shadow1\_89 (K6), Shaka\_64 (A4), SheldonCooper\_66 (A4),

ShiaSurprise\_84 (K1), Shygu2\_65 (A4), SirJeffery\_77 (B5), Skipitt\_65 (A4), Slimphazie\_85 (K1), Smeagan\_74 (A2), SnapTap\_71 (A2), Snickers\_69 (A3), SoYo\_70 (A3), SoilDragon\_72 (A3), Soshari\_75 (A3), Sparxx\_67 (A4), Spike509\_73 (A3), Spino\_65 (A4), Spock\_83 (K1), Stagni\_70 (A3), StepMih\_72 (A3), Stinger\_77 (B4), Stink\_65 (A4), Suigeneris\_80 (B5), Sulley\_80 (K1), Sunflower1121\_88 (K6), SuperAwesome\_73 (A6), Superchunk\_73 (A2), SweetiePie\_71 (A2), SwirlSquare\_78 (A2), Syra333\_88 (K6), TM4\_84 (K2), TNguyen7\_69 (A3), Tachez\_83 (K1), Taquarus\_65 (A4), TarsusIV\_69 (A2), Taurus\_74 (A3), Texage\_66 (A3), Thanksgiving\_65 (A4), Thyatira\_77 (K5), Tierra\_89 (K6), TinaFeyge\_64 (A4), Tinybot\_65 (A4), TopsytheTRex\_71 (A2), Tiri\_83 (K1), TiroTheta9\_65 (A4), Todacoro\_68 (A3), Topanga\_62 (A10), Topper\_83 (K1), TripleTrouble\_85 (K3), Trike\_62 (A10), Trixie\_71 (A2), Trooper\_71 (A2), TroyPia\_67 (A4), TruffulaTree\_85 (K1), Turbido\_72 (A2), Twitch\_83 (K1), TygerBlood\_66 (A4), Ulysses\_65 (A4), Unicorn\_89 (K6), Updawg\_72 (A2), Urkel\_83 (K1), VA6\_71 (A2), Validus\_89 (K1), Veliki\_84 (K1), Veracruz\_65 (A3), Vincenzo\_80 (B4), Vix\_69 (A3), VohminGhazi\_73 (A6), WalterMcMickey\_64 (A10), Wander\_66 (A4), Waterfoul\_76 (K5), Watson\_72 (A3), WeiHuaDA\_72 (A2), Whabigail7\_72 (A2), WideWale\_72 (A2), Wilbur\_66 (A4), Wile\_64 (A4), Wizard007\_65 (A4), Wooldri\_75 (A3), Xena\_64 (A4), Ximenita\_90 (K6), Yecey3\_75 (A9), YoSam321\_66 (A4), YoureAdopted\_82 (K1), Zavala\_85 (K1), Zetzy\_70 (A3),

#### Start 74:

- Found in 3 of 526 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 491
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Ageofdapage\_87 (K1),

#### Start 76:

- Found in 193 of 526 ( 36.7% ) of genes in pham
- Manual Annotations of this start: 6 of 491
- Called 4.1% of time when present
- Phage (with cluster) where this start called: BengiVuitton\_71 (A2), Blinn1\_77 (A6), Chartreuse\_70 (A6), DaVinci\_71 (A6), EZMoney23\_68 (A2), EricB\_72 (A6), SmellyB\_73 (A6), SuperCallie99\_70 (A6),

#### Start 78:

- Found in 522 of 526 ( 99.2% ) of genes in pham
- Manual Annotations of this start: 16 of 491
- Called 4.2% of time when present
- Phage (with cluster) where this start called: ActinUp\_84 (K1), Jayhawk\_84 (K1), Keshu\_87 (K3), Llorens\_82 (K1), LoneWolf\_74 (A9), Methuselah\_66 (A3), Microwolf\_69 (A3), Miryou\_80 (K5), Murucutumbu\_83 (K1), Pixie\_84 (K3), Prithvi\_85 (K1), Rahalelujah\_73 (A9), ShedlockHolmes\_87 (K3), Sheen\_70 (A7), SirPhilip\_84 (K6), Stinson\_84 (K1), TBond007\_81 (K3), TClif\_84 (K6), TaiwanKao\_84 (K1), TreyKay\_85 (K1), Yuna\_86 (K6), Zabiza\_79 (K1),

### Summary by clusters:

There are 17 clusters represented in this pham: K3, AC, A10, A7, B5, A19, A3, B4, K2, K1, A2, A4, K5, A6, A9, B6, K6,

Info for manual annotations of cluster A10:

- Start number 68 was manually annotated 1 time for cluster A10.

- Start number 73 was manually annotated 15 times for cluster A10.

Info for manual annotations of cluster A19:

- Start number 73 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 73 was manually annotated 61 times for cluster A2.
- Start number 76 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A3:

- Start number 68 was manually annotated 5 times for cluster A3.
- Start number 73 was manually annotated 102 times for cluster A3.
- Start number 78 was manually annotated 2 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 68 was manually annotated 2 times for cluster A4.
- Start number 73 was manually annotated 133 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 73 was manually annotated 11 times for cluster A6.
- Start number 76 was manually annotated 5 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 78 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 73 was manually annotated 2 times for cluster A9.
- Start number 78 was manually annotated 2 times for cluster A9.

Info for manual annotations of cluster AC:

- Start number 55 was manually annotated 3 times for cluster AC.
- Start number 73 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster B4:

- Start number 73 was manually annotated 10 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 73 was manually annotated 5 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 73 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster K1:

- Start number 65 was manually annotated 1 time for cluster K1.
- Start number 73 was manually annotated 73 times for cluster K1.
- Start number 74 was manually annotated 1 time for cluster K1.
- Start number 78 was manually annotated 5 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 63 was manually annotated 5 times for cluster K2.
- Start number 72 was manually annotated 4 times for cluster K2.
- Start number 73 was manually annotated 1 time for cluster K2.

Info for manual annotations of cluster K3:

- Start number 73 was manually annotated 4 times for cluster K3.
- Start number 78 was manually annotated 4 times for cluster K3.

Info for manual annotations of cluster K5:

- Start number 67 was manually annotated 2 times for cluster K5.
- Start number 73 was manually annotated 8 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 67 was manually annotated 5 times for cluster K6.
- Start number 73 was manually annotated 12 times for cluster K6.
- Start number 78 was manually annotated 2 times for cluster K6.

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

Gene: 20ES\_73 Start: 43296, Stop: 43102, Start Num: 73

Candidate Starts for 20ES\_73:

(Start: 73 @43296 has 440 MA's), (Start: 76 @43281 has 6 MA's), (Start: 78 @43275 has 16 MA's), (102, 43128),

Gene: 39HC\_076 Start: 62435, Stop: 62220, Start Num: 73

Candidate Starts for 39HC\_076:

(Start: 73 @62435 has 440 MA's), (Start: 78 @62414 has 16 MA's), (79, 62408), (98, 62288),

Gene: 40BC\_076 Start: 62435, Stop: 62220, Start Num: 73

Candidate Starts for 40BC\_076:

(Start: 73 @62435 has 440 MA's), (Start: 78 @62414 has 16 MA's), (79, 62408), (98, 62288),

Gene: ACFishhook\_70 Start: 42521, Stop: 42327, Start Num: 73

Candidate Starts for ACFishhook\_70:

(6, 42812), (20, 42671), (59, 42542), (Start: 68 @42527 has 8 MA's), (Start: 73 @42521 has 440 MA's), (Start: 78 @42500 has 16 MA's), (83, 42464), (89, 42437), (98, 42395), (102, 42353),

Gene: AN3\_73 Start: 42011, Stop: 41817, Start Num: 73

Candidate Starts for AN3\_73:

(32, 42095), (Start: 73 @42011 has 440 MA's), (Start: 76 @41996 has 6 MA's), (Start: 78 @41990 has 16 MA's), (102, 41843),

Gene: AbbyPaige\_73 Start: 43546, Stop: 43352, Start Num: 73

Candidate Starts for AbbyPaige\_73:

(Start: 73 @43546 has 440 MA's), (Start: 78 @43525 has 16 MA's), (102, 43378),

Gene: AbbysRanger\_65 Start: 42426, Stop: 42232, Start Num: 73

Candidate Starts for AbbysRanger\_65:

(Start: 68 @42432 has 8 MA's), (Start: 73 @42426 has 440 MA's), (Start: 76 @42411 has 6 MA's), (Start: 78 @42405 has 16 MA's), (102, 42258),

Gene: Abdiel\_66 Start: 42176, Stop: 41982, Start Num: 73

Candidate Starts for Abdiel\_66:

(Start: 68 @42182 has 8 MA's), (Start: 73 @42176 has 440 MA's), (Start: 76 @42161 has 6 MA's), (Start: 78 @42155 has 16 MA's), (102, 42008),



Gene: Acadian\_79 Start: 62704, Stop: 62492, Start Num: 73

Candidate Starts for Acadian\_79:

(50, 62749), (61, 62719), (70, 62707), (Start: 73 @62704 has 440 MA's), (Start: 78 @62683 has 16 MA's), (81, 62653), (84, 62641), (94, 62578), (95, 62575), (100, 62524), (102, 62518),

Gene: Achebe\_64 Start: 42409, Stop: 42215, Start Num: 73

Candidate Starts for Achebe\_64:

(Start: 68 @42415 has 8 MA's), (Start: 73 @42409 has 440 MA's), (Start: 76 @42394 has 6 MA's), (Start: 78 @42388 has 16 MA's), (102, 42241),

Gene: ActinUp\_84 Start: 53552, Stop: 53728, Start Num: 78

Candidate Starts for ActinUp\_84:

(Start: 65 @53522 has 1 MA's), (Start: 73 @53531 has 440 MA's), (Start: 78 @53552 has 16 MA's), (79, 53558), (98, 53660), (102, 53702),

Gene: Adephagia\_82 Start: 53368, Stop: 53565, Start Num: 73

Candidate Starts for Adephagia\_82:

(Start: 65 @53359 has 1 MA's), (Start: 73 @53368 has 440 MA's), (Start: 78 @53389 has 16 MA's), (79, 53395), (98, 53497), (102, 53539),

Gene: Adonis\_83 Start: 53563, Stop: 53760, Start Num: 73

Candidate Starts for Adonis\_83:

(Start: 65 @53554 has 1 MA's), (Start: 73 @53563 has 440 MA's), (Start: 78 @53584 has 16 MA's), (79, 53590), (98, 53692), (102, 53734),

Gene: Adzzy\_75 Start: 42168, Stop: 41974, Start Num: 73

Candidate Starts for Adzzy\_75:

(Start: 73 @42168 has 440 MA's), (Start: 78 @42147 has 16 MA's), (83, 42111), (98, 42042),

Gene: Agape74\_73 Start: 43540, Stop: 43346, Start Num: 73

Candidate Starts for Agape74\_73:

(Start: 73 @43540 has 440 MA's), (Start: 78 @43519 has 16 MA's), (102, 43372),

Gene: Ageofdapage\_87 Start: 54313, Stop: 54507, Start Num: 74

Candidate Starts for Ageofdapage\_87:

(Start: 73 @54310 has 440 MA's), (Start: 74 @54313 has 1 MA's), (75, 54319), (Start: 78 @54331 has 16 MA's), (79, 54337), (98, 54439), (102, 54481),

Gene: Aglet\_74 Start: 42633, Stop: 42439, Start Num: 73

Candidate Starts for Aglet\_74:

(6, 42924), (8, 42891), (20, 42783), (59, 42654), (Start: 68 @42639 has 8 MA's), (Start: 73 @42633 has 440 MA's), (Start: 78 @42612 has 16 MA's), (83, 42576), (98, 42507), (102, 42465),

Gene: AgronaGT15\_70 Start: 42481, Stop: 42287, Start Num: 73

Candidate Starts for AgronaGT15\_70:

(6, 42772), (8, 42739), (20, 42631), (59, 42502), (Start: 68 @42487 has 8 MA's), (Start: 73 @42481 has 440 MA's), (Start: 78 @42460 has 16 MA's), (83, 42424), (98, 42355), (102, 42313),

Gene: Ahwei\_77 Start: 63002, Stop: 62790, Start Num: 73

Candidate Starts for Ahwei\_77:

(11, 63224), (12, 63215), (54, 63038), (71, 63008), (Start: 73 @63002 has 440 MA's), (Start: 78 @62981 has 16 MA's), (79, 62975), (89, 62900), (98, 62858), (102, 62816),

Gene: AlanGrant\_81 Start: 64893, Stop: 64684, Start Num: 73

Candidate Starts for AlanGrant\_81:

(Start: 73 @64893 has 440 MA's), (Start: 78 @64872 has 16 MA's), (79, 64866), (92, 64788),

Gene: Albee\_66 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Albee\_66:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's),  
(Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Alberto7\_67 Start: 42500, Stop: 42306, Start Num: 73

Candidate Starts for Alberto7\_67:

(Start: 68 @42506 has 8 MA's), (Start: 73 @42500 has 440 MA's), (Start: 76 @42485 has 6 MA's),  
(Start: 78 @42479 has 16 MA's), (102, 42332),

Gene: Amgine\_83 Start: 54887, Stop: 55099, Start Num: 67

Candidate Starts for Amgine\_83:

(59, 54878), (Start: 67 @54887 has 7 MA's), (Start: 73 @54890 has 440 MA's), (Start: 78 @54911 has  
16 MA's), (79, 54917), (84, 54953), (95, 55004), (102, 55061),

Gene: Amohnition\_81 Start: 53937, Stop: 54149, Start Num: 67

Candidate Starts for Amohnition\_81:

(15, 53772), (28, 53838), (59, 53928), (Start: 67 @53937 has 7 MA's), (Start: 73 @53940 has 440  
MA's), (Start: 78 @53961 has 16 MA's), (79, 53967), (98, 54069), (102, 54111),

Gene: Angelica\_80 Start: 52740, Stop: 52937, Start Num: 73

Candidate Starts for Angelica\_80:

(Start: 73 @52740 has 440 MA's), (Start: 74 @52743 has 1 MA's), (75, 52749), (Start: 78 @52761 has  
16 MA's), (79, 52767), (98, 52869), (102, 52911),

Gene: AnnaL29\_71 Start: 43496, Stop: 43302, Start Num: 73

Candidate Starts for AnnaL29\_71:

(Start: 73 @43496 has 440 MA's), (Start: 76 @43481 has 6 MA's), (Start: 78 @43475 has 16 MA's),  
(102, 43328),

Gene: Annyong\_65 Start: 42208, Stop: 42014, Start Num: 73

Candidate Starts for Annyong\_65:

(Start: 68 @42214 has 8 MA's), (Start: 73 @42208 has 440 MA's), (Start: 76 @42193 has 6 MA's),  
(Start: 78 @42187 has 16 MA's), (102, 42040),

Gene: Anselm\_73 Start: 43690, Stop: 43496, Start Num: 73

Candidate Starts for Anselm\_73:

(Start: 73 @43690 has 440 MA's), (Start: 78 @43669 has 16 MA's),

Gene: Anubis\_76 Start: 42525, Stop: 42325, Start Num: 68

Candidate Starts for Anubis\_76:

(6, 42810), (8, 42777), (20, 42669), (59, 42540), (Start: 68 @42525 has 8 MA's), (Start: 73 @42519  
has 440 MA's), (Start: 78 @42498 has 16 MA's), (83, 42462), (98, 42393), (102, 42351),

Gene: Apex\_81 Start: 64322, Stop: 64110, Start Num: 73

Candidate Starts for Apex\_81:

(23, 64454), (25, 64445), (53, 64364), (64, 64337), (Start: 73 @64322 has 440 MA's), (Start: 78  
@64301 has 16 MA's), (79, 64295), (89, 64220), (95, 64193), (98, 64178), (102, 64136),

Gene: Apocalypse\_85 Start: 53740, Stop: 53937, Start Num: 73

Candidate Starts for Apocalypse\_85:

(Start: 73 @53740 has 440 MA's), (75, 53749), (79, 53767), (98, 53869), (102, 53911),

Gene: ArcherNM\_65 Start: 42767, Stop: 42573, Start Num: 73

Candidate Starts for ArcherNM\_65:

(32, 42845), (Start: 73 @42767 has 440 MA's), (Start: 76 @42752 has 6 MA's), (Start: 78 @42746 has 16 MA's), (102, 42599),

Gene: Arturo\_63 Start: 42290, Stop: 42096, Start Num: 73

Candidate Starts for Arturo\_63:

(Start: 68 @42296 has 8 MA's), (Start: 73 @42290 has 440 MA's), (Start: 76 @42275 has 6 MA's), (Start: 78 @42269 has 16 MA's), (95, 42179), (99, 42152), (102, 42122),

Gene: Asayake\_83 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for Asayake\_83:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's), (79, 53710), (98, 53812), (102, 53854),

Gene: Atiba\_84 Start: 53331, Stop: 53528, Start Num: 73

Candidate Starts for Atiba\_84:

(Start: 65 @53322 has 1 MA's), (Start: 73 @53331 has 440 MA's), (Start: 78 @53352 has 16 MA's), (79, 53358), (98, 53460), (102, 53502),

Gene: AugsMagnumOpus\_76 Start: 42624, Stop: 42430, Start Num: 73

Candidate Starts for AugsMagnumOpus\_76:

(6, 42915), (8, 42882), (20, 42774), (59, 42645), (Start: 68 @42630 has 8 MA's), (Start: 73 @42624 has 440 MA's), (Start: 78 @42603 has 16 MA's), (83, 42567), (98, 42498), (102, 42456),

Gene: Austelle\_79 Start: 64615, Stop: 64403, Start Num: 73

Candidate Starts for Austelle\_79:

(11, 64837), (12, 64828), (54, 64651), (71, 64621), (Start: 73 @64615 has 440 MA's), (Start: 78 @64594 has 16 MA's), (79, 64588), (89, 64513), (98, 64471), (102, 64429),

Gene: AvatarAhPeg\_65 Start: 42296, Stop: 42102, Start Num: 73

Candidate Starts for AvatarAhPeg\_65:

(Start: 68 @42302 has 8 MA's), (Start: 73 @42296 has 440 MA's), (Start: 76 @42281 has 6 MA's), (Start: 78 @42275 has 16 MA's), (102, 42128),

Gene: Avle17\_66 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for Avle17\_66:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: B1\_60 Start: 40543, Stop: 40349, Start Num: 73

Candidate Starts for B1\_60:

(Start: 68 @40549 has 8 MA's), (Start: 73 @40543 has 440 MA's), (Start: 78 @40522 has 16 MA's), (95, 40432), (102, 40375),

Gene: BABullseye\_66 Start: 40017, Stop: 39823, Start Num: 73

Candidate Starts for BABullseye\_66:

(Start: 73 @40017 has 440 MA's), (Start: 76 @40002 has 6 MA's), (Start: 78 @39996 has 16 MA's), (95, 39906), (102, 39849), (103, 39828),

Gene: BEEST\_83 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for BEEST\_83:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's), (79, 53710), (98, 53812), (102, 53854),

Gene: BGlluviae\_82 Start: 53060, Stop: 53257, Start Num: 73

Candidate Starts for BGlluviae\_82:

(Start: 73 @53060 has 440 MA's), (75, 53069), (Start: 78 @53081 has 16 MA's), (79, 53087), (98, 53189), (102, 53231),

Gene: Baby16\_66 Start: 42174, Stop: 41980, Start Num: 73

Candidate Starts for Baby16\_66:

(Start: 68 @42180 has 8 MA's), (Start: 73 @42174 has 440 MA's), (Start: 76 @42159 has 6 MA's), (Start: 78 @42153 has 16 MA's), (102, 42006),

Gene: BabyBack\_68 Start: 43275, Stop: 43081, Start Num: 73

Candidate Starts for BabyBack\_68:

(26, 43380), (32, 43353), (Start: 73 @43275 has 440 MA's), (Start: 78 @43254 has 16 MA's), (84, 43215), (86, 43200), (102, 43107),

Gene: BabyRay\_69 Start: 42348, Stop: 42154, Start Num: 73

Candidate Starts for BabyRay\_69:

(Start: 68 @42354 has 8 MA's), (Start: 73 @42348 has 440 MA's), (Start: 78 @42327 has 16 MA's), (98, 42222), (102, 42180),

Gene: Backyardigan\_63 Start: 42448, Stop: 42248, Start Num: 68

Candidate Starts for Backyardigan\_63:

(Start: 68 @42448 has 8 MA's), (Start: 73 @42442 has 440 MA's), (Start: 76 @42427 has 6 MA's), (Start: 78 @42421 has 16 MA's), (102, 42274),

Gene: Badger\_64 Start: 42410, Stop: 42216, Start Num: 73

Candidate Starts for Badger\_64:

(Start: 68 @42416 has 8 MA's), (Start: 73 @42410 has 440 MA's), (Start: 76 @42395 has 6 MA's), (Start: 78 @42389 has 16 MA's), (102, 42242),

Gene: Bae\_78 Start: 63340, Stop: 63128, Start Num: 73

Candidate Starts for Bae\_78:

(50, 63385), (61, 63355), (70, 63343), (Start: 73 @63340 has 440 MA's), (Start: 78 @63319 has 16 MA's), (81, 63289), (84, 63277), (95, 63211), (100, 63160), (102, 63154),

Gene: Baehexic\_70 Start: 43018, Stop: 42824, Start Num: 73

Candidate Starts for Baehexic\_70:

(Start: 73 @43018 has 440 MA's), (Start: 76 @43003 has 6 MA's), (Start: 78 @42997 has 16 MA's), (102, 42850),

Gene: BaghaKamala\_82 Start: 52917, Stop: 53114, Start Num: 73

Candidate Starts for BaghaKamala\_82:

(Start: 65 @52908 has 1 MA's), (Start: 73 @52917 has 440 MA's), (Start: 78 @52938 has 16 MA's), (79, 52944), (98, 53046), (102, 53088),

Gene: BangNhom\_64 Start: 42575, Stop: 42381, Start Num: 73  
Candidate Starts for BangNhom\_64:  
(Start: 68 @42581 has 8 MA's), (Start: 73 @42575 has 440 MA's), (Start: 76 @42560 has 6 MA's),  
(Start: 78 @42554 has 16 MA's), (102, 42407),

Gene: BarrelRoll\_83 Start: 53457, Stop: 53654, Start Num: 73  
Candidate Starts for BarrelRoll\_83:  
(Start: 73 @53457 has 440 MA's), (75, 53466), (Start: 78 @53478 has 16 MA's), (79, 53484), (98,  
53586), (102, 53628),

Gene: Bartimeaus\_66 Start: 42165, Stop: 41971, Start Num: 73  
Candidate Starts for Bartimeaus\_66:  
(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's),  
(Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Beauxregard13\_72 Start: 42636, Stop: 42442, Start Num: 73  
Candidate Starts for Beauxregard13\_72:  
(6, 42927), (8, 42894), (20, 42786), (59, 42657), (Start: 68 @42642 has 8 MA's), (Start: 73 @42636  
has 440 MA's), (Start: 78 @42615 has 16 MA's), (83, 42579), (98, 42510), (102, 42468),

Gene: Beezoo\_86 Start: 54272, Stop: 54469, Start Num: 73  
Candidate Starts for Beezoo\_86:  
(43, 54206), (Start: 73 @54272 has 440 MA's), (Start: 78 @54293 has 16 MA's), (79, 54299), (98,  
54401), (102, 54443),

Gene: Belladonna\_83 Start: 53486, Stop: 53683, Start Num: 73  
Candidate Starts for Belladonna\_83:  
(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's),  
(79, 53513), (98, 53615), (102, 53657),

Gene: BellusTerra\_67 Start: 42176, Stop: 41982, Start Num: 73  
Candidate Starts for BellusTerra\_67:  
(Start: 68 @42182 has 8 MA's), (Start: 73 @42176 has 440 MA's), (Start: 76 @42161 has 6 MA's),  
(Start: 78 @42155 has 16 MA's), (102, 42008),

Gene: BengiVuitton\_71 Start: 43258, Stop: 43079, Start Num: 76  
Candidate Starts for BengiVuitton\_71:  
(20, 43384), (Start: 73 @43273 has 440 MA's), (Start: 76 @43258 has 6 MA's), (Start: 78 @43252 has  
16 MA's), (102, 43105),

Gene: Benvolio\_69 Start: 42930, Stop: 42736, Start Num: 73  
Candidate Starts for Benvolio\_69:  
(Start: 73 @42930 has 440 MA's), (Start: 78 @42909 has 16 MA's), (92, 42828),

Gene: Blackmoor\_65 Start: 42165, Stop: 41971, Start Num: 73  
Candidate Starts for Blackmoor\_65:  
(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's),  
(Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Blinn1\_77 Start: 42621, Stop: 42442, Start Num: 76  
Candidate Starts for Blinn1\_77:  
(Start: 73 @42636 has 440 MA's), (Start: 76 @42621 has 6 MA's), (Start: 78 @42615 has 16 MA's),  
(95, 42525), (102, 42468), (103, 42447),

Gene: Blizzard\_83 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for Blizzard\_83:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's), (79, 53710), (98, 53812), (102, 53854),

Gene: BlueBird\_71 Start: 42395, Stop: 42201, Start Num: 73

Candidate Starts for BlueBird\_71:

(Start: 68 @42401 has 8 MA's), (Start: 73 @42395 has 440 MA's), (Start: 78 @42374 has 16 MA's), (93, 42290), (98, 42269), (102, 42227),

Gene: BobbyK\_80 Start: 63769, Stop: 63557, Start Num: 73

Candidate Starts for BobbyK\_80:

(23, 63901), (25, 63892), (53, 63811), (64, 63784), (Start: 73 @63769 has 440 MA's), (Start: 78 @63748 has 16 MA's), (79, 63742), (89, 63667), (95, 63640), (98, 63625), (102, 63583),

Gene: Boiiii\_83 Start: 53685, Stop: 53882, Start Num: 73

Candidate Starts for Boiiii\_83:

(Start: 65 @53676 has 1 MA's), (Start: 73 @53685 has 440 MA's), (Start: 78 @53706 has 16 MA's), (79, 53712), (98, 53814), (102, 53856),

Gene: Bombshell\_66 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for Bombshell\_66:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: BoostSeason\_84 Start: 54452, Stop: 54649, Start Num: 72

Candidate Starts for BoostSeason\_84:

(13, 54248), (16, 54290), (57, 54428), (Start: 72 @54452 has 4 MA's), (75, 54461), (Start: 78 @54473 has 16 MA's), (79, 54479), (102, 54623),

Gene: BreSam8\_73 Start: 42626, Stop: 42432, Start Num: 73

Candidate Starts for BreSam8\_73:

(6, 42917), (8, 42884), (20, 42776), (59, 42647), (Start: 68 @42632 has 8 MA's), (Start: 73 @42626 has 440 MA's), (Start: 78 @42605 has 16 MA's), (83, 42569), (98, 42500), (102, 42458),

Gene: Broseidon\_66 Start: 42165, Stop: 41971, Start Num: 73

Candidate Starts for Broseidon\_66:

(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's), (Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Bruiser\_65 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Bruiser\_65:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: BubbleTrouble\_65 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for BubbleTrouble\_65:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Bugatti\_68 Start: 42395, Stop: 42201, Start Num: 73

Candidate Starts for Bugatti\_68:

(Start: 68 @42401 has 8 MA's), (Start: 73 @42395 has 440 MA's), (Start: 78 @42374 has 16 MA's), (93, 42290), (98, 42269), (102, 42227),

Gene: Buggy\_73 Start: 43593, Stop: 43399, Start Num: 73

Candidate Starts for Buggy\_73:

(Start: 73 @43593 has 440 MA's), (Start: 78 @43572 has 16 MA's), (102, 43425),

Gene: Bumblebee11\_64 Start: 42412, Stop: 42218, Start Num: 73

Candidate Starts for Bumblebee11\_64:

(Start: 68 @42418 has 8 MA's), (Start: 73 @42412 has 440 MA's), (Start: 76 @42397 has 6 MA's), (Start: 78 @42391 has 16 MA's), (102, 42244),

Gene: Burger\_64 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Burger\_64:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: BuzzBuzz\_67 Start: 42660, Stop: 42466, Start Num: 73

Candidate Starts for BuzzBuzz\_67:

(6, 42951), (8, 42918), (20, 42810), (59, 42681), (Start: 68 @42666 has 8 MA's), (Start: 73 @42660 has 440 MA's), (Start: 78 @42639 has 16 MA's), (83, 42603), (98, 42534), (102, 42492),

Gene: Bxz2\_68 Start: 42667, Stop: 42473, Start Num: 73

Candidate Starts for Bxz2\_68:

(6, 42958), (8, 42925), (20, 42817), (59, 42688), (Start: 68 @42673 has 8 MA's), (Start: 73 @42667 has 440 MA's), (Start: 78 @42646 has 16 MA's), (83, 42610), (98, 42541), (102, 42499),

Gene: CRB1\_73 Start: 43819, Stop: 43625, Start Num: 73

Candidate Starts for CRB1\_73:

(Start: 73 @43819 has 440 MA's), (Start: 76 @43804 has 6 MA's), (Start: 78 @43798 has 16 MA's), (102, 43651),

Gene: CREW\_82 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for CREW\_82:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: Caelakin\_65 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Caelakin\_65:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Cain\_90 Start: 54343, Stop: 54552, Start Num: 73

Candidate Starts for Cain\_90:

(17, 54193), (33, 54262), (37, 54271), (Start: 73 @54343 has 440 MA's), (Start: 78 @54364 has 16 MA's), (79, 54370), (95, 54457), (98, 54472), (102, 54514),

Gene: Camperdownii\_64 Start: 41837, Stop: 41643, Start Num: 73

Candidate Starts for Camperdownii\_64:

(Start: 68 @41843 has 8 MA's), (Start: 73 @41837 has 440 MA's), (Start: 76 @41822 has 6 MA's), (Start: 78 @41816 has 16 MA's), (102, 41669),

Gene: Candra\_71 Start: 41713, Stop: 41510, Start Num: 73

Candidate Starts for Candra\_71:

(Start: 73 @41713 has 440 MA's), (Start: 76 @41698 has 6 MA's), (Start: 78 @41692 has 16 MA's), (102, 41545),

Gene: Capricorn\_83 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for Capricorn\_83:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: Caraxes\_74 Start: 41932, Stop: 41711, Start Num: 73

Candidate Starts for Caraxes\_74:

(Start: 73 @41932 has 440 MA's), (Start: 78 @41911 has 16 MA's), (79, 41905), (102, 41764),

Gene: CaseJules\_85 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for CaseJules\_85:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's), (79, 53710), (98, 53812), (102, 53854),

Gene: Caviar\_68 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for Caviar\_68:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: Centaur\_72 Start: 43233, Stop: 43039, Start Num: 73

Candidate Starts for Centaur\_72:

(Start: 73 @43233 has 440 MA's), (Start: 76 @43218 has 6 MA's), (Start: 78 @43212 has 16 MA's), (102, 43065),

Gene: CentreCat\_66 Start: 42175, Stop: 41981, Start Num: 73

Candidate Starts for CentreCat\_66:

(Start: 68 @42181 has 8 MA's), (Start: 73 @42175 has 440 MA's), (Start: 76 @42160 has 6 MA's), (Start: 78 @42154 has 16 MA's), (102, 42007),

Gene: Cerulean\_67 Start: 42576, Stop: 42382, Start Num: 73

Candidate Starts for Cerulean\_67:

(Start: 68 @42582 has 8 MA's), (Start: 73 @42576 has 440 MA's), (Start: 76 @42561 has 6 MA's), (Start: 78 @42555 has 16 MA's), (102, 42408),

Gene: ChampagnePapi\_68 Start: 42575, Stop: 42381, Start Num: 73

Candidate Starts for ChampagnePapi\_68:

(Start: 68 @42581 has 8 MA's), (Start: 73 @42575 has 440 MA's), (Start: 76 @42560 has 6 MA's), (Start: 78 @42554 has 16 MA's), (102, 42407),

Gene: Changeling\_70 Start: 43475, Stop: 43281, Start Num: 73

Candidate Starts for Changeling\_70:

(32, 43553), (Start: 73 @43475 has 440 MA's), (Start: 76 @43460 has 6 MA's), (Start: 78 @43454 has 16 MA's), (102, 43307),

Gene: Chaph\_66 Start: 42174, Stop: 41980, Start Num: 73

Candidate Starts for Chaph\_66:

(Start: 68 @42180 has 8 MA's), (Start: 73 @42174 has 440 MA's), (Start: 76 @42159 has 6 MA's), (Start: 78 @42153 has 16 MA's), (102, 42006),



Gene: Chartreuse\_70 Start: 41009, Stop: 40821, Start Num: 76  
Candidate Starts for Chartreuse\_70:  
(Start: 73 @41024 has 440 MA's), (Start: 76 @41009 has 6 MA's), (Start: 78 @41003 has 16 MA's),  
(102, 40856),

Gene: Che12\_75 Start: 42052, Stop: 41858, Start Num: 73  
Candidate Starts for Che12\_75:  
(Start: 73 @42052 has 440 MA's), (Start: 78 @42031 has 16 MA's), (83, 41995), (98, 41926),

Gene: CheetoDust\_83 Start: 52878, Stop: 53075, Start Num: 73  
Candidate Starts for CheetoDust\_83:  
(Start: 73 @52878 has 440 MA's), (75, 52887), (Start: 78 @52899 has 16 MA's), (79, 52905), (98,  
53007), (102, 53049),

Gene: Chris\_84 Start: 53731, Stop: 53940, Start Num: 73  
Candidate Starts for Chris\_84:  
(9, 53506), (29, 53632), (40, 53662), (Start: 73 @53731 has 440 MA's), (Start: 78 @53752 has 16  
MA's), (91, 53830),

Gene: ChrisnMich\_79 Start: 62738, Stop: 62526, Start Num: 73  
Candidate Starts for ChrisnMich\_79:  
(Start: 73 @62738 has 440 MA's), (Start: 78 @62717 has 16 MA's), (79, 62711), (89, 62636), (102,  
62552),

Gene: Chupacabra\_63 Start: 41503, Stop: 41309, Start Num: 73  
Candidate Starts for Chupacabra\_63:  
(Start: 68 @41509 has 8 MA's), (Start: 73 @41503 has 440 MA's), (Start: 78 @41482 has 16 MA's),  
(83, 41446), (93, 41398), (98, 41377), (102, 41335),

Gene: Cici\_65 Start: 42427, Stop: 42233, Start Num: 73  
Candidate Starts for Cici\_65:  
(Start: 68 @42433 has 8 MA's), (Start: 73 @42427 has 440 MA's), (Start: 76 @42412 has 6 MA's),  
(Start: 78 @42406 has 16 MA's), (102, 42259),

Gene: Cindaradix\_62 Start: 42038, Stop: 41844, Start Num: 73  
Candidate Starts for Cindaradix\_62:  
(Start: 68 @42044 has 8 MA's), (Start: 73 @42038 has 440 MA's), (Start: 76 @42023 has 6 MA's),  
(Start: 78 @42017 has 16 MA's), (95, 41927), (99, 41900), (102, 41870),

Gene: Cintron\_66 Start: 42286, Stop: 42092, Start Num: 73  
Candidate Starts for Cintron\_66:  
(Start: 68 @42292 has 8 MA's), (Start: 73 @42286 has 440 MA's), (Start: 76 @42271 has 6 MA's),  
(Start: 78 @42265 has 16 MA's), (102, 42118),

Gene: Citius\_66 Start: 42184, Stop: 41990, Start Num: 73  
Candidate Starts for Citius\_66:  
(Start: 68 @42190 has 8 MA's), (Start: 73 @42184 has 440 MA's), (Start: 76 @42169 has 6 MA's),  
(Start: 78 @42163 has 16 MA's), (102, 42016),

Gene: Clarenza\_65 Start: 42160, Stop: 41966, Start Num: 73  
Candidate Starts for Clarenza\_65:  
(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's),  
(Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: Cocoaberry\_66 Start: 42167, Stop: 41973, Start Num: 73

Candidate Starts for Cocoaberry\_66:

(Start: 68 @42173 has 8 MA's), (Start: 73 @42167 has 440 MA's), (Start: 76 @42152 has 6 MA's), (Start: 78 @42146 has 16 MA's), (102, 41999),

Gene: Colbster\_69 Start: 42636, Stop: 42442, Start Num: 73

Candidate Starts for Colbster\_69:

(6, 42927), (8, 42894), (20, 42786), (59, 42657), (Start: 68 @42642 has 8 MA's), (Start: 73 @42636 has 440 MA's), (Start: 78 @42615 has 16 MA's), (83, 42579), (98, 42510), (102, 42468),

Gene: Colin\_71 Start: 44222, Stop: 44028, Start Num: 73

Candidate Starts for Colin\_71:

(14, 44396), (26, 44327), (32, 44300), (Start: 73 @44222 has 440 MA's), (Start: 76 @44207 has 6 MA's), (Start: 78 @44201 has 16 MA's), (95, 44111), (102, 44054),

Gene: Commander\_64 Start: 42162, Stop: 41968, Start Num: 73

Candidate Starts for Commander\_64:

(Start: 68 @42168 has 8 MA's), (Start: 73 @42162 has 440 MA's), (Start: 76 @42147 has 6 MA's), (Start: 78 @42141 has 16 MA's), (102, 41994),

Gene: Connomayer\_66 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Connomayer\_66:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Cookiedough\_73 Start: 42325, Stop: 42131, Start Num: 73

Candidate Starts for Cookiedough\_73:

(Start: 73 @42325 has 440 MA's), (Start: 76 @42310 has 6 MA's), (Start: 78 @42304 has 16 MA's), (95, 42214), (102, 42157), (103, 42136),

Gene: Cooper\_80 Start: 63387, Stop: 63175, Start Num: 73

Candidate Starts for Cooper\_80:

(54, 63423), (71, 63393), (Start: 73 @63387 has 440 MA's), (Start: 78 @63366 has 16 MA's), (79, 63360), (89, 63285), (102, 63201),

Gene: CrimD\_83 Start: 53510, Stop: 53707, Start Num: 73

Candidate Starts for CrimD\_83:

(Start: 73 @53510 has 440 MA's), (75, 53519), (Start: 78 @53531 has 16 MA's), (79, 53537), (98, 53639), (102, 53681),

Gene: Crucio\_72 Start: 43590, Stop: 43396, Start Num: 73

Candidate Starts for Crucio\_72:

(Start: 73 @43590 has 440 MA's), (Start: 78 @43569 has 16 MA's),

Gene: Cuke\_46 Start: 33195, Stop: 33455, Start Num: 55

Candidate Starts for Cuke\_46:

(43, 33159), (Start: 55 @33195 has 3 MA's), (66, 33216), (80, 33267), (85, 33297), (96, 33357), (97, 33360), (102, 33411),

Gene: Cullens\_73 Start: 42632, Stop: 42438, Start Num: 73

Candidate Starts for Cullens\_73:

(6, 42923), (8, 42890), (20, 42782), (59, 42653), (Start: 68 @42638 has 8 MA's), (Start: 73 @42632 has 440 MA's), (Start: 78 @42611 has 16 MA's), (83, 42575), (98, 42506), (102, 42464),

Gene: DaHudson\_72 Start: 42625, Stop: 42431, Start Num: 73

Candidate Starts for DaHudson\_72:

(6, 42916), (8, 42883), (20, 42775), (59, 42646), (Start: 68 @42631 has 8 MA's), (Start: 73 @42625 has 440 MA's), (Start: 78 @42604 has 16 MA's), (83, 42568), (98, 42499), (102, 42457),

Gene: DaVinci\_71 Start: 41063, Stop: 40875, Start Num: 76

Candidate Starts for DaVinci\_71:

(Start: 73 @41078 has 440 MA's), (Start: 76 @41063 has 6 MA's), (Start: 78 @41057 has 16 MA's), (102, 40910),

Gene: Daishi\_72 Start: 41500, Stop: 41306, Start Num: 73

Candidate Starts for Daishi\_72:

(6, 41791), (8, 41758), (20, 41650), (59, 41521), (Start: 68 @41506 has 8 MA's), (Start: 73 @41500 has 440 MA's), (Start: 78 @41479 has 16 MA's), (83, 41443), (98, 41374), (102, 41332),

Gene: Dalmatian\_72 Start: 43409, Stop: 43215, Start Num: 73

Candidate Starts for Dalmatian\_72:

(Start: 73 @43409 has 440 MA's), (Start: 78 @43388 has 16 MA's),

Gene: Dalmuri\_83 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for Dalmuri\_83:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: DarthP\_81 Start: 53790, Stop: 54002, Start Num: 67

Candidate Starts for DarthP\_81:

(15, 53625), (28, 53691), (59, 53781), (Start: 67 @53790 has 7 MA's), (Start: 73 @53793 has 440 MA's), (Start: 78 @53814 has 16 MA's), (79, 53820), (98, 53922), (102, 53964),

Gene: Datway\_65 Start: 42398, Stop: 42204, Start Num: 73

Candidate Starts for Datway\_65:

(Start: 68 @42404 has 8 MA's), (Start: 73 @42398 has 440 MA's), (Start: 76 @42383 has 6 MA's), (Start: 78 @42377 has 16 MA's), (102, 42230),

Gene: Deano\_63 Start: 42171, Stop: 41977, Start Num: 73

Candidate Starts for Deano\_63:

(Start: 68 @42177 has 8 MA's), (Start: 73 @42171 has 440 MA's), (Start: 76 @42156 has 6 MA's), (Start: 78 @42150 has 16 MA's), (102, 42003),

Gene: Deby\_83 Start: 53940, Stop: 54137, Start Num: 73

Candidate Starts for Deby\_83:

(28, 53829), (31, 53844), (35, 53853), (38, 53859), (Start: 65 @53931 has 1 MA's), (Start: 73 @53940 has 440 MA's), (Start: 78 @53961 has 16 MA's), (79, 53967), (91, 54039), (98, 54069), (102, 54111),

Gene: Deloris\_71 Start: 42969, Stop: 42775, Start Num: 73

Candidate Starts for Deloris\_71:

(20, 43080), (Start: 73 @42969 has 440 MA's), (Start: 76 @42954 has 6 MA's), (Start: 78 @42948 has 16 MA's), (102, 42801),

Gene: Devera\_89 Start: 54354, Stop: 54551, Start Num: 73

Candidate Starts for Devera\_89:

(36, 54270), (39, 54276), (Start: 73 @54354 has 440 MA's), (75, 54363), (Start: 78 @54375 has 16 MA's), (79, 54381), (98, 54483), (102, 54525),

Gene: Dhanush\_66 Start: 42166, Stop: 41972, Start Num: 73

Candidate Starts for Dhanush\_66:

(Start: 68 @42172 has 8 MA's), (Start: 73 @42166 has 440 MA's), (Start: 76 @42151 has 6 MA's), (Start: 78 @42145 has 16 MA's), (102, 41998),

Gene: Dieselweasel\_73 Start: 42634, Stop: 42440, Start Num: 73

Candidate Starts for Dieselweasel\_73:

(6, 42925), (8, 42892), (20, 42784), (59, 42655), (Start: 68 @42640 has 8 MA's), (Start: 73 @42634 has 440 MA's), (Start: 78 @42613 has 16 MA's), (83, 42577), (98, 42508), (102, 42466),

Gene: DigitDog\_79 Start: 62820, Stop: 62623, Start Num: 73

Candidate Starts for DigitDog\_79:

(50, 62862), (53, 62856), (62, 62832), (Start: 68 @62823 has 8 MA's), (Start: 73 @62820 has 440 MA's), (75, 62811), (Start: 78 @62799 has 16 MA's), (90, 62724), (99, 62679), (102, 62649),

Gene: Dignity\_73 Start: 43631, Stop: 43437, Start Num: 73

Candidate Starts for Dignity\_73:

(Start: 73 @43631 has 440 MA's), (Start: 76 @43616 has 6 MA's), (Start: 78 @43610 has 16 MA's), (83, 43574), (102, 43463),

Gene: DirtyDunning\_65 Start: 42178, Stop: 41984, Start Num: 73

Candidate Starts for DirtyDunning\_65:

(Start: 68 @42184 has 8 MA's), (Start: 73 @42178 has 440 MA's), (Start: 76 @42163 has 6 MA's), (Start: 78 @42157 has 16 MA's), (102, 42010),

Gene: DismalFunk\_85 Start: 54874, Stop: 55095, Start Num: 63

Candidate Starts for DismalFunk\_85:

(13, 54769), (16, 54811), (Start: 63 @54874 has 5 MA's), (75, 54883), (Start: 78 @54895 has 16 MA's), (79, 54901), (102, 55045),

Gene: DismalStressor\_85 Start: 54874, Stop: 55095, Start Num: 63

Candidate Starts for DismalStressor\_85:

(13, 54769), (16, 54811), (Start: 63 @54874 has 5 MA's), (75, 54883), (Start: 78 @54895 has 16 MA's), (79, 54901), (102, 55045),

Gene: Dole\_86 Start: 54357, Stop: 54554, Start Num: 73

Candidate Starts for Dole\_86:

(36, 54273), (39, 54279), (Start: 73 @54357 has 440 MA's), (75, 54366), (Start: 78 @54378 has 16 MA's), (79, 54384), (98, 54486), (102, 54528),

Gene: Dorothea\_70 Start: 42323, Stop: 42129, Start Num: 73

Candidate Starts for Dorothea\_70:

(Start: 73 @42323 has 440 MA's), (Start: 76 @42308 has 6 MA's), (Start: 78 @42302 has 16 MA's), (95, 42212), (102, 42155), (103, 42134),

Gene: DrHayes\_83 Start: 53754, Stop: 53951, Start Num: 73

Candidate Starts for DrHayes\_83:

(43, 53688), (Start: 73 @53754 has 440 MA's), (Start: 78 @53775 has 16 MA's), (79, 53781), (91, 53853), (98, 53883), (102, 53925),

Gene: Drake55\_73 Start: 43334, Stop: 43140, Start Num: 73

Candidate Starts for Drake55\_73:

(20, 43445), (Start: 73 @43334 has 440 MA's), (Start: 76 @43319 has 6 MA's), (Start: 78 @43313 has 16 MA's), (102, 43166),

Gene: Drake94\_63 Start: 40578, Stop: 40384, Start Num: 73

Candidate Starts for Drake94\_63:

(Start: 68 @40584 has 8 MA's), (Start: 73 @40578 has 440 MA's), (Start: 78 @40557 has 16 MA's), (95, 40467), (102, 40410),

Gene: Druantia\_65 Start: 42166, Stop: 41972, Start Num: 73

Candidate Starts for Druantia\_65:

(Start: 68 @42172 has 8 MA's), (Start: 73 @42166 has 440 MA's), (Start: 76 @42151 has 6 MA's), (Start: 78 @42145 has 16 MA's), (102, 41998),

Gene: DudeLittle\_70 Start: 43175, Stop: 42981, Start Num: 73

Candidate Starts for DudeLittle\_70:

(Start: 73 @43175 has 440 MA's), (Start: 78 @43154 has 16 MA's),

Gene: Durfee\_83 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for Durfee\_83:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's), (79, 53710), (98, 53812), (102, 53854),

Gene: EZMoney23\_68 Start: 43002, Stop: 42823, Start Num: 76

Candidate Starts for EZMoney23\_68:

(20, 43149), (32, 43095), (Start: 73 @43017 has 440 MA's), (Start: 76 @43002 has 6 MA's), (Start: 78 @42996 has 16 MA's), (102, 42849),

Gene: Eagle\_65 Start: 42197, Stop: 42003, Start Num: 73

Candidate Starts for Eagle\_65:

(Start: 68 @42203 has 8 MA's), (Start: 73 @42197 has 440 MA's), (Start: 78 @42176 has 16 MA's), (102, 42029),

Gene: Eaglepride\_67 Start: 41610, Stop: 41416, Start Num: 73

Candidate Starts for Eaglepride\_67:

(Start: 68 @41616 has 8 MA's), (Start: 73 @41610 has 440 MA's), (Start: 78 @41589 has 16 MA's), (83, 41553), (93, 41505), (98, 41484), (102, 41442),

Gene: Eapen\_66 Start: 42158, Stop: 41964, Start Num: 73

Candidate Starts for Eapen\_66:

(Start: 68 @42164 has 8 MA's), (Start: 73 @42158 has 440 MA's), (Start: 76 @42143 has 6 MA's), (Start: 78 @42137 has 16 MA's), (102, 41990),

Gene: EastView9101\_80 Start: 62448, Stop: 62236, Start Num: 73

Candidate Starts for EastView9101\_80:

(50, 62493), (61, 62463), (70, 62451), (Start: 73 @62448 has 440 MA's), (Start: 78 @62427 has 16 MA's), (81, 62397), (84, 62385), (94, 62322), (95, 62319), (100, 62268), (102, 62262),

Gene: Echild\_72 Start: 42954, Stop: 42760, Start Num: 73

Candidate Starts for Echild\_72:

(Start: 73 @42954 has 440 MA's), (Start: 78 @42933 has 16 MA's), (92, 42852),

Gene: Edison31\_62 Start: 41378, Stop: 41184, Start Num: 73

Candidate Starts for Edison31\_62:

(20, 41528), (Start: 68 @41384 has 8 MA's), (Start: 73 @41378 has 440 MA's), (Start: 78 @41357 has 16 MA's), (102, 41210),

Gene: Ekdilam\_78 Start: 53953, Stop: 54162, Start Num: 73

Candidate Starts for Ekdilam\_78:

(21, 53809), (22, 53824), (27, 53842), (53, 53920), (Start: 55 @53929 has 3 MA's), (Start: 73 @53953 has 440 MA's), (Start: 78 @53974 has 16 MA's), (79, 53980), (89, 54040), (98, 54082), (102, 54124),

Gene: Ellie\_81 Start: 54058, Stop: 54267, Start Num: 73

Candidate Starts for Ellie\_81:

(59, 54046), (Start: 67 @54055 has 7 MA's), (Start: 73 @54058 has 440 MA's), (Start: 78 @54079 has 16 MA's), (79, 54085), (84, 54121), (95, 54172), (102, 54229),

Gene: Emerson\_85 Start: 53678, Stop: 53875, Start Num: 73

Candidate Starts for Emerson\_85:

(43, 53612), (Start: 73 @53678 has 440 MA's), (Start: 78 @53699 has 16 MA's), (79, 53705), (91, 53777), (98, 53807), (102, 53849),

Gene: EpicPhail\_74 Start: 42636, Stop: 42442, Start Num: 73

Candidate Starts for EpicPhail\_74:

(6, 42927), (8, 42894), (20, 42786), (59, 42657), (Start: 68 @42642 has 8 MA's), (Start: 73 @42636 has 440 MA's), (Start: 78 @42615 has 16 MA's), (83, 42579), (98, 42510), (102, 42468),

Gene: Equemioh13\_71 Start: 43138, Stop: 42944, Start Num: 73

Candidate Starts for Equemioh13\_71:

(Start: 73 @43138 has 440 MA's), (Start: 76 @43123 has 6 MA's), (Start: 78 @43117 has 16 MA's), (102, 42970),

Gene: EricB\_72 Start: 41655, Stop: 41467, Start Num: 76

Candidate Starts for EricB\_72:

(Start: 73 @41670 has 440 MA's), (Start: 76 @41655 has 6 MA's), (Start: 78 @41649 has 16 MA's), (102, 41502),

Gene: Eris\_65 Start: 42178, Stop: 41984, Start Num: 73

Candidate Starts for Eris\_65:

(Start: 68 @42184 has 8 MA's), (Start: 73 @42178 has 440 MA's), (Start: 76 @42163 has 6 MA's), (Start: 78 @42157 has 16 MA's), (102, 42010),

Gene: Eros\_66 Start: 42165, Stop: 41971, Start Num: 73

Candidate Starts for Eros\_66:

(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's), (Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Eurydice\_67 Start: 42172, Stop: 41978, Start Num: 73

Candidate Starts for Eurydice\_67:

(Start: 68 @42178 has 8 MA's), (Start: 73 @42172 has 440 MA's), (Start: 76 @42157 has 6 MA's), (Start: 78 @42151 has 16 MA's), (102, 42004),

Gene: Farber\_73 Start: 42622, Stop: 42428, Start Num: 73

Candidate Starts for Farber\_73:

(6, 42913), (8, 42880), (20, 42772), (59, 42643), (Start: 68 @42628 has 8 MA's), (Start: 73 @42622 has 440 MA's), (Start: 78 @42601 has 16 MA's), (83, 42565), (98, 42496), (102, 42454),

Gene: Fefferhead\_83 Start: 53851, Stop: 54063, Start Num: 67

Candidate Starts for Fefferhead\_83:

(59, 53842), (Start: 67 @53851 has 7 MA's), (Start: 73 @53854 has 440 MA's), (Start: 78 @53875 has 16 MA's), (79, 53881), (84, 53917), (95, 53968), (102, 54025),

Gene: Fernando\_73 Start: 42632, Stop: 42438, Start Num: 73

Candidate Starts for Fernando\_73:

(6, 42923), (8, 42890), (20, 42782), (59, 42653), (Start: 68 @42638 has 8 MA's), (Start: 73 @42632 has 440 MA's), (Start: 78 @42611 has 16 MA's), (83, 42575), (98, 42506), (102, 42464),

Gene: Feyre\_78 Start: 53791, Stop: 54006, Start Num: 67

Candidate Starts for Feyre\_78:

(1, 53458), (2, 53491), (10, 53578), (18, 53641), (28, 53689), (38, 53719), (59, 53782), (Start: 67 @53791 has 7 MA's), (Start: 78 @53818 has 16 MA's), (102, 53968),

Gene: Findley\_85 Start: 54892, Stop: 55113, Start Num: 63

Candidate Starts for Findley\_85:

(13, 54787), (16, 54829), (Start: 63 @54892 has 5 MA's), (75, 54901), (Start: 78 @54913 has 16 MA's), (79, 54919), (102, 55063),

Gene: FiringLine\_72 Start: 43572, Stop: 43378, Start Num: 73

Candidate Starts for FiringLine\_72:

(Start: 73 @43572 has 440 MA's), (Start: 78 @43551 has 16 MA's),

Gene: First\_0072 Start: 43196, Stop: 43002, Start Num: 73

Candidate Starts for First\_0072:

(Start: 73 @43196 has 440 MA's), (Start: 76 @43181 has 6 MA's), (Start: 78 @43175 has 16 MA's), (102, 43028),

Gene: Flare16\_72 Start: 43277, Stop: 43083, Start Num: 73

Candidate Starts for Flare16\_72:

(Start: 73 @43277 has 440 MA's), (Start: 76 @43262 has 6 MA's), (Start: 78 @43256 has 16 MA's), (102, 43109), (103, 43088),

Gene: Florean\_66 Start: 42162, Stop: 41968, Start Num: 73

Candidate Starts for Florean\_66:

(Start: 68 @42168 has 8 MA's), (Start: 73 @42162 has 440 MA's), (Start: 76 @42147 has 6 MA's), (Start: 78 @42141 has 16 MA's), (102, 41994),

Gene: Flux\_66 Start: 42162, Stop: 41968, Start Num: 73

Candidate Starts for Flux\_66:

(Start: 68 @42168 has 8 MA's), (Start: 73 @42162 has 440 MA's), (Start: 76 @42147 has 6 MA's), (Start: 78 @42141 has 16 MA's), (102, 41994),

Gene: Fowlmouth\_50 Start: 36597, Stop: 36857, Start Num: 55

Candidate Starts for Fowlmouth\_50:

(Start: 55 @36597 has 3 MA's), (66, 36618), (80, 36669), (85, 36699), (96, 36759), (102, 36813),

Gene: Fred313\_66 Start: 41988, Stop: 41794, Start Num: 73

Candidate Starts for Fred313\_66:

(Start: 68 @41994 has 8 MA's), (Start: 73 @41988 has 440 MA's), (Start: 78 @41967 has 16 MA's), (93, 41883), (98, 41862), (102, 41820),

Gene: Funston\_65 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Funston\_65:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (77, 42145), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Gadost\_66 Start: 42167, Stop: 41973, Start Num: 73

Candidate Starts for Gadost\_66:

(Start: 68 @42173 has 8 MA's), (Start: 73 @42167 has 440 MA's), (Start: 76 @42152 has 6 MA's), (Start: 78 @42146 has 16 MA's), (102, 41999),

Gene: Ganymede\_83 Start: 53498, Stop: 53695, Start Num: 73

Candidate Starts for Ganymede\_83:

(Start: 73 @53498 has 440 MA's), (75, 53507), (Start: 78 @53519 has 16 MA's), (79, 53525), (98, 53627), (102, 53669),

Gene: GaugeLDP\_67 Start: 42843, Stop: 42649, Start Num: 73

Candidate Starts for GaugeLDP\_67:

(26, 42948), (Start: 73 @42843 has 440 MA's), (Start: 78 @42822 has 16 MA's), (102, 42675), (103, 42654),

Gene: Gemma\_70 Start: 42445, Stop: 42251, Start Num: 73

Candidate Starts for Gemma\_70:

(3, 42751), (6, 42736), (20, 42595), (59, 42466), (Start: 68 @42451 has 8 MA's), (Start: 73 @42445 has 440 MA's), (Start: 78 @42424 has 16 MA's), (83, 42388), (89, 42361), (98, 42319), (102, 42277),

Gene: Gengar\_76 Start: 52022, Stop: 52231, Start Num: 73

Candidate Starts for Gengar\_76:

(15, 51857), (31, 51938), (35, 51947), (38, 51953), (41, 51965), (59, 52010), (Start: 73 @52022 has 440 MA's), (Start: 78 @52043 has 16 MA's), (79, 52049), (102, 52193),

Gene: Georgie2\_73 Start: 43617, Stop: 43423, Start Num: 73

Candidate Starts for Georgie2\_73:

(Start: 73 @43617 has 440 MA's), (Start: 78 @43596 has 16 MA's),

Gene: Geraldini\_85 Start: 53518, Stop: 53715, Start Num: 73

Candidate Starts for Geraldini\_85:

(Start: 73 @53518 has 440 MA's), (75, 53527), (Start: 78 @53539 has 16 MA's), (79, 53545), (98, 53647), (102, 53689),

Gene: GingkoMaracino\_73 Start: 42518, Stop: 42324, Start Num: 73

Candidate Starts for GingkoMaracino\_73:

(6, 42809), (8, 42776), (20, 42668), (59, 42539), (Start: 68 @42524 has 8 MA's), (Start: 73 @42518 has 440 MA's), (Start: 78 @42497 has 16 MA's), (83, 42461), (98, 42392), (102, 42350),

Gene: Giroux\_67 Start: 42394, Stop: 42200, Start Num: 73

Candidate Starts for Giroux\_67:

(Start: 68 @42400 has 8 MA's), (Start: 73 @42394 has 440 MA's), (Start: 78 @42373 has 16 MA's), (93, 42289), (98, 42268), (102, 42226),

Gene: Goose\_66 Start: 41319, Stop: 41125, Start Num: 73



Candidate Starts for Goose\_66:

(Start: 68 @41325 has 8 MA's), (Start: 73 @41319 has 440 MA's), (Start: 78 @41298 has 16 MA's), (83, 41262), (93, 41214), (98, 41193), (102, 41151),

Gene: GreedyLawyer\_69 Start: 41643, Stop: 41440, Start Num: 73

Candidate Starts for GreedyLawyer\_69:

(Start: 73 @41643 has 440 MA's), (Start: 76 @41628 has 6 MA's), (Start: 78 @41622 has 16 MA's), (102, 41475),

Gene: Grif\_71 Start: 42706, Stop: 42512, Start Num: 73

Candidate Starts for Grif\_71:

(6, 42997), (8, 42964), (20, 42856), (59, 42727), (Start: 68 @42712 has 8 MA's), (Start: 73 @42706 has 440 MA's), (Start: 78 @42685 has 16 MA's), (83, 42649), (98, 42580), (102, 42538),

Gene: Groupthink\_73 Start: 42449, Stop: 42255, Start Num: 73

Candidate Starts for Groupthink\_73:

(6, 42740), (20, 42599), (59, 42470), (Start: 68 @42455 has 8 MA's), (Start: 73 @42449 has 440 MA's), (Start: 78 @42428 has 16 MA's), (83, 42392), (89, 42365), (98, 42323), (102, 42281),

Gene: Grub\_71 Start: 42624, Stop: 42430, Start Num: 73

Candidate Starts for Grub\_71:

(6, 42915), (8, 42882), (20, 42774), (59, 42645), (Start: 68 @42630 has 8 MA's), (Start: 73 @42624 has 440 MA's), (Start: 78 @42603 has 16 MA's), (83, 42567), (98, 42498), (102, 42456),

Gene: Grum1\_72 Start: 42632, Stop: 42438, Start Num: 73

Candidate Starts for Grum1\_72:

(6, 42923), (8, 42890), (20, 42782), (59, 42653), (Start: 68 @42638 has 8 MA's), (Start: 73 @42632 has 440 MA's), (Start: 78 @42611 has 16 MA's), (83, 42575), (98, 42506), (102, 42464),

Gene: GtownJaz\_73 Start: 42633, Stop: 42439, Start Num: 73

Candidate Starts for GtownJaz\_73:

(6, 42924), (8, 42891), (20, 42783), (59, 42654), (Start: 68 @42639 has 8 MA's), (Start: 73 @42633 has 440 MA's), (Start: 78 @42612 has 16 MA's), (83, 42576), (98, 42507), (102, 42465),

Gene: Guillsminger\_77 Start: 51877, Stop: 52086, Start Num: 73

Candidate Starts for Guillsminger\_77:

(Start: 73 @51877 has 440 MA's), (Start: 78 @51898 has 16 MA's), (102, 52048),

Gene: HamSlice\_62 Start: 42161, Stop: 41967, Start Num: 73

Candidate Starts for HamSlice\_62:

(Start: 68 @42167 has 8 MA's), (Start: 73 @42161 has 440 MA's), (Start: 76 @42146 has 6 MA's), (Start: 78 @42140 has 16 MA's), (102, 41993),

Gene: Hammy\_81 Start: 53780, Stop: 53992, Start Num: 67

Candidate Starts for Hammy\_81:

(15, 53615), (28, 53681), (59, 53771), (Start: 67 @53780 has 7 MA's), (Start: 73 @53783 has 440 MA's), (Start: 78 @53804 has 16 MA's), (79, 53810), (98, 53912), (102, 53954),

Gene: Happiness\_65 Start: 42158, Stop: 41964, Start Num: 73

Candidate Starts for Happiness\_65:

(Start: 68 @42164 has 8 MA's), (Start: 73 @42158 has 440 MA's), (Start: 76 @42143 has 6 MA's), (Start: 78 @42137 has 16 MA's), (102, 41990),

Gene: HarryHoudini\_72 Start: 43335, Stop: 43141, Start Num: 73  
Candidate Starts for HarryHoudini\_72:  
(20, 43446), (Start: 73 @43335 has 440 MA's), (Start: 76 @43320 has 6 MA's), (Start: 78 @43314 has 16 MA's), (102, 43167),

Gene: HashRod\_74 Start: 42660, Stop: 42466, Start Num: 73  
Candidate Starts for HashRod\_74:  
(6, 42951), (8, 42918), (20, 42810), (59, 42681), (Start: 68 @42666 has 8 MA's), (Start: 73 @42660 has 440 MA's), (Start: 78 @42639 has 16 MA's), (83, 42603), (98, 42534), (102, 42492),

Gene: HaveUMetTed\_73 Start: 42434, Stop: 42240, Start Num: 73  
Candidate Starts for HaveUMetTed\_73:  
(3, 42740), (6, 42725), (20, 42584), (59, 42455), (Start: 68 @42440 has 8 MA's), (Start: 73 @42434 has 440 MA's), (Start: 78 @42413 has 16 MA's), (83, 42377), (89, 42350), (98, 42308), (102, 42266),

Gene: Heathen\_68 Start: 42083, Stop: 41889, Start Num: 73  
Candidate Starts for Heathen\_68:  
(Start: 68 @42089 has 8 MA's), (Start: 73 @42083 has 440 MA's), (Start: 78 @42062 has 16 MA's), (93, 41978), (98, 41957), (102, 41915),

Gene: HedwigODU\_83 Start: 53522, Stop: 53728, Start Num: 65  
Candidate Starts for HedwigODU\_83:  
(Start: 65 @53522 has 1 MA's), (Start: 73 @53531 has 440 MA's), (Start: 78 @53552 has 16 MA's), (79, 53558), (98, 53660), (102, 53702),

Gene: HelDan\_68 Start: 42299, Stop: 42105, Start Num: 73  
Candidate Starts for HelDan\_68:  
(Start: 68 @42305 has 8 MA's), (Start: 73 @42299 has 440 MA's), (Start: 78 @42278 has 16 MA's), (93, 42194), (98, 42173), (102, 42131),

Gene: Heliosoles\_70 Start: 42452, Stop: 42258, Start Num: 73  
Candidate Starts for Heliosoles\_70:  
(6, 42743), (20, 42602), (59, 42473), (Start: 68 @42458 has 8 MA's), (Start: 73 @42452 has 440 MA's), (Start: 78 @42431 has 16 MA's), (83, 42395), (89, 42368), (98, 42326), (102, 42284),

Gene: Herbertwm\_68 Start: 42752, Stop: 42558, Start Num: 73  
Candidate Starts for Herbertwm\_68:  
(Start: 68 @42761 has 8 MA's), (Start: 73 @42752 has 440 MA's), (Start: 78 @42731 has 16 MA's), (79, 42725), (102, 42584),

Gene: Hercules11\_73 Start: 42641, Stop: 42447, Start Num: 73  
Candidate Starts for Hercules11\_73:  
(6, 42932), (8, 42899), (20, 42791), (59, 42662), (Start: 68 @42647 has 8 MA's), (Start: 73 @42641 has 440 MA's), (Start: 78 @42620 has 16 MA's), (83, 42584), (98, 42515), (102, 42473),

Gene: Holli\_65 Start: 41953, Stop: 41759, Start Num: 73  
Candidate Starts for Holli\_65:  
(Start: 68 @41959 has 8 MA's), (Start: 73 @41953 has 440 MA's), (Start: 76 @41938 has 6 MA's), (Start: 78 @41932 has 16 MA's), (102, 41785),

Gene: Homura\_82 Start: 53486, Stop: 53683, Start Num: 73  
Candidate Starts for Homura\_82:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: Hookmount\_68 Start: 42352, Stop: 42158, Start Num: 73

Candidate Starts for Hookmount\_68:

(20, 42502), (Start: 73 @42352 has 440 MA's), (Start: 78 @42331 has 16 MA's), (93, 42247), (95, 42241), (102, 42184),

Gene: Hoot\_68 Start: 39528, Stop: 39325, Start Num: 73

Candidate Starts for Hoot\_68:

(Start: 73 @39528 has 440 MA's), (Start: 76 @39513 has 6 MA's), (Start: 78 @39507 has 16 MA's), (102, 39360),

Gene: Hosp\_072 Start: 59905, Stop: 59690, Start Num: 73

Candidate Starts for Hosp\_072:

(Start: 73 @59905 has 440 MA's), (Start: 78 @59884 has 16 MA's), (79, 59878), (98, 59758), (100, 59722),

Gene: Houdini22\_65 Start: 42167, Stop: 41973, Start Num: 73

Candidate Starts for Houdini22\_65:

(Start: 68 @42173 has 8 MA's), (Start: 73 @42167 has 440 MA's), (Start: 76 @42152 has 6 MA's), (Start: 78 @42146 has 16 MA's), (102, 41999),

Gene: Hurricane\_85 Start: 54418, Stop: 54627, Start Num: 73

Candidate Starts for Hurricane\_85:

(Start: 73 @54418 has 440 MA's), (Start: 78 @54439 has 16 MA's), (79, 54445), (93, 54526), (98, 54547), (102, 54589),

Gene: Hyperbowlee\_82 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for Hyperbowlee\_82:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's), (79, 53710), (98, 53812), (102, 53854),

Gene: ICleared\_65 Start: 42204, Stop: 42010, Start Num: 73

Candidate Starts for ICleared\_65:

(Start: 68 @42210 has 8 MA's), (Start: 73 @42204 has 440 MA's), (Start: 76 @42189 has 6 MA's), (Start: 78 @42183 has 16 MA's), (102, 42036),

Gene: Iceman\_65 Start: 42452, Stop: 42258, Start Num: 73

Candidate Starts for Iceman\_65:

(Start: 68 @42458 has 8 MA's), (Start: 73 @42452 has 440 MA's), (Start: 76 @42437 has 6 MA's), (Start: 78 @42431 has 16 MA's), (102, 42284),

Gene: Idleandcovert\_69 Start: 42395, Stop: 42201, Start Num: 73

Candidate Starts for Idleandcovert\_69:

(Start: 68 @42401 has 8 MA's), (Start: 73 @42395 has 440 MA's), (Start: 78 @42374 has 16 MA's), (93, 42290), (98, 42269), (102, 42227),

Gene: Illumine\_87 Start: 54356, Stop: 54553, Start Num: 73

Candidate Starts for Illumine\_87:

(36, 54272), (39, 54278), (Start: 73 @54356 has 440 MA's), (75, 54365), (Start: 78 @54377 has 16 MA's), (79, 54383), (98, 54485), (102, 54527),

Gene: Indlulamithi\_47 Start: 37804, Stop: 38013, Start Num: 73

Candidate Starts for Indlulamithi\_47:

(Start: 73 @37804 has 440 MA's), (Start: 78 @37825 has 16 MA's), (82, 37858), (88, 37897), (92, 37918), (95, 37927), (96, 37930), (99, 37954), (102, 37984),

Gene: Inky\_83 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for Inky\_83:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: Iracema64\_66 Start: 42430, Stop: 42236, Start Num: 73

Candidate Starts for Iracema64\_66:

(Start: 68 @42436 has 8 MA's), (Start: 73 @42430 has 440 MA's), (Start: 76 @42415 has 6 MA's), (Start: 78 @42409 has 16 MA's), (102, 42262),

Gene: Isca\_66 Start: 41848, Stop: 41654, Start Num: 73

Candidate Starts for Isca\_66:

(Start: 68 @41854 has 8 MA's), (Start: 73 @41848 has 440 MA's), (Start: 78 @41827 has 16 MA's), (92, 41746), (95, 41737), (102, 41680),

Gene: Iwokeuplikedis\_73 Start: 43642, Stop: 43448, Start Num: 73

Candidate Starts for Iwokeuplikedis\_73:

(59, 43666), (Start: 68 @43651 has 8 MA's), (Start: 73 @43642 has 440 MA's), (Start: 76 @43627 has 6 MA's), (Start: 78 @43621 has 16 MA's), (102, 43474),

Gene: JAWS\_82 Start: 53478, Stop: 53675, Start Num: 73

Candidate Starts for JAWS\_82:

(51, 53433), (52, 53436), (Start: 73 @53478 has 440 MA's), (Start: 78 @53499 has 16 MA's), (79, 53505), (98, 53607), (102, 53649),

Gene: JF2\_66 Start: 40543, Stop: 40349, Start Num: 73

Candidate Starts for JF2\_66:

(Start: 68 @40549 has 8 MA's), (Start: 73 @40543 has 440 MA's), (Start: 78 @40522 has 16 MA's), (95, 40432), (102, 40375),

Gene: JF4\_66 Start: 40543, Stop: 40349, Start Num: 73

Candidate Starts for JF4\_66:

(Start: 68 @40549 has 8 MA's), (Start: 73 @40543 has 440 MA's), (Start: 78 @40522 has 16 MA's), (95, 40432), (102, 40375),

Gene: JHC117\_69 Start: 42636, Stop: 42436, Start Num: 68

Candidate Starts for JHC117\_69:

(6, 42921), (8, 42888), (20, 42780), (59, 42651), (Start: 68 @42636 has 8 MA's), (Start: 73 @42630 has 440 MA's), (Start: 78 @42609 has 16 MA's), (83, 42573), (98, 42504), (102, 42462),

Gene: Jarvi\_83 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for Jarvi\_83:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: Jayhawk\_84 Start: 53538, Stop: 53714, Start Num: 78

Candidate Starts for Jayhawk\_84:

(Start: 73 @53517 has 440 MA's), (75, 53526), (Start: 78 @53538 has 16 MA's), (79, 53544), (98, 53646), (102, 53688),

Gene: Jaykayelowell\_63 Start: 42156, Stop: 41962, Start Num: 73

Candidate Starts for Jaykayelowell\_63:

(Start: 68 @42162 has 8 MA's), (Start: 73 @42156 has 440 MA's), (Start: 76 @42141 has 6 MA's), (Start: 78 @42135 has 16 MA's), (102, 41988),

Gene: Jeckyll\_83 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for Jeckyll\_83:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: JenCasNa\_74 Start: 42632, Stop: 42438, Start Num: 73

Candidate Starts for JenCasNa\_74:

(6, 42923), (8, 42890), (20, 42782), (59, 42653), (Start: 68 @42638 has 8 MA's), (Start: 73 @42632 has 440 MA's), (Start: 78 @42611 has 16 MA's), (83, 42575), (98, 42506), (102, 42464),

Gene: JeppNRM\_73 Start: 42450, Stop: 42256, Start Num: 73

Candidate Starts for JeppNRM\_73:

(6, 42741), (20, 42600), (59, 42471), (Start: 68 @42456 has 8 MA's), (Start: 73 @42450 has 440 MA's), (Start: 78 @42429 has 16 MA's), (83, 42393), (89, 42366), (98, 42324), (102, 42282),

Gene: Jerm\_73 Start: 43613, Stop: 43419, Start Num: 73

Candidate Starts for Jerm\_73:

(Start: 73 @43613 has 440 MA's), (Start: 76 @43598 has 6 MA's), (Start: 78 @43592 has 16 MA's), (83, 43556), (102, 43445),

Gene: JetBlade\_66 Start: 42166, Stop: 41972, Start Num: 73

Candidate Starts for JetBlade\_66:

(Start: 68 @42172 has 8 MA's), (Start: 73 @42166 has 440 MA's), (Start: 76 @42151 has 6 MA's), (Start: 78 @42145 has 16 MA's), (102, 41998),

Gene: Jobu08\_69 Start: 42470, Stop: 42270, Start Num: 68

Candidate Starts for Jobu08\_69:

(6, 42755), (8, 42722), (20, 42614), (59, 42485), (Start: 68 @42470 has 8 MA's), (Start: 73 @42464 has 440 MA's), (Start: 78 @42443 has 16 MA's), (83, 42407), (98, 42338), (102, 42296),

Gene: Jolie1\_074 Start: 61939, Stop: 61724, Start Num: 73

Candidate Starts for Jolie1\_074:

(Start: 73 @61939 has 440 MA's), (Start: 78 @61918 has 16 MA's), (79, 61912), (98, 61792), (100, 61756),

Gene: JoongJeon\_65 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for JoongJeon\_65:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: JoshKayV\_72 Start: 43664, Stop: 43470, Start Num: 73

Candidate Starts for JoshKayV\_72:

(20, 43775), (Start: 73 @43664 has 440 MA's), (Start: 76 @43649 has 6 MA's), (Start: 78 @43643 has 16 MA's), (102, 43496),

Gene: Joy99\_84 Start: 53615, Stop: 53812, Start Num: 73  
Candidate Starts for Joy99\_84:  
(Start: 65 @53606 has 1 MA's), (Start: 73 @53615 has 440 MA's), (Start: 78 @53636 has 16 MA's),  
(79, 53642), (98, 53744), (102, 53786),

Gene: Jsquared\_75 Start: 42754, Stop: 42560, Start Num: 73  
Candidate Starts for Jsquared\_75:  
(20, 42910), (59, 42778), (Start: 73 @42754 has 440 MA's), (Start: 78 @42733 has 16 MA's), (98,  
42628),

Gene: KADY\_70 Start: 42660, Stop: 42466, Start Num: 73  
Candidate Starts for KADY\_70:  
(6, 42951), (8, 42918), (20, 42810), (59, 42681), (Start: 68 @42666 has 8 MA's), (Start: 73 @42660  
has 440 MA's), (Start: 78 @42639 has 16 MA's), (83, 42603), (98, 42534), (102, 42492),

Gene: KFPoly\_65 Start: 42157, Stop: 41963, Start Num: 73  
Candidate Starts for KFPoly\_65:  
(Start: 68 @42163 has 8 MA's), (Start: 73 @42157 has 440 MA's), (Start: 76 @42142 has 6 MA's),  
(Start: 78 @42136 has 16 MA's), (102, 41989),

Gene: Kalb97\_73 Start: 42448, Stop: 42254, Start Num: 73  
Candidate Starts for Kalb97\_73:  
(59, 42469), (Start: 68 @42454 has 8 MA's), (Start: 73 @42448 has 440 MA's), (Start: 78 @42427 has  
16 MA's), (83, 42391), (89, 42364), (98, 42322), (102, 42280),

Gene: Kalnoky\_73 Start: 42446, Stop: 42252, Start Num: 73  
Candidate Starts for Kalnoky\_73:  
(6, 42737), (20, 42596), (59, 42467), (Start: 68 @42452 has 8 MA's), (Start: 73 @42446 has 440  
MA's), (Start: 78 @42425 has 16 MA's), (83, 42389), (89, 42362), (98, 42320), (102, 42278),

Gene: Kalpine\_71 Start: 43640, Stop: 43446, Start Num: 73  
Candidate Starts for Kalpine\_71:  
(26, 43745), (32, 43718), (Start: 73 @43640 has 440 MA's), (Start: 76 @43625 has 6 MA's), (Start: 78  
@43619 has 16 MA's), (102, 43472),

Gene: Kampy\_65 Start: 42165, Stop: 41971, Start Num: 73  
Candidate Starts for Kampy\_65:  
(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's),  
(Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Katalie136\_65 Start: 42412, Stop: 42218, Start Num: 73  
Candidate Starts for Katalie136\_65:  
(Start: 68 @42418 has 8 MA's), (Start: 73 @42412 has 440 MA's), (Start: 76 @42397 has 6 MA's),  
(Start: 78 @42391 has 16 MA's), (102, 42244),

Gene: KayaCho\_74 Start: 62106, Stop: 61891, Start Num: 73  
Candidate Starts for KayaCho\_74:  
(44, 62163), (Start: 73 @62106 has 440 MA's), (Start: 78 @62085 has 16 MA's), (79, 62079), (98,  
61959),

Gene: Kazan\_74 Start: 41683, Stop: 41480, Start Num: 73  
Candidate Starts for Kazan\_74:

(Start: 73 @41683 has 440 MA's), (Start: 76 @41668 has 6 MA's), (Start: 78 @41662 has 16 MA's), (102, 41515),

Gene: Keshu\_87 Start: 54731, Stop: 54919, Start Num: 78

Candidate Starts for Keshu\_87:

(Start: 73 @54710 has 440 MA's), (Start: 78 @54731 has 16 MA's), (91, 54809), (94, 54821), (98, 54839), (102, 54881),

Gene: Keziacharles14\_70 Start: 43282, Stop: 43091, Start Num: 73

Candidate Starts for Keziacharles14\_70:

(Start: 73 @43282 has 440 MA's), (Start: 76 @43267 has 6 MA's), (Start: 78 @43261 has 16 MA's), (98, 43156), (102, 43114),

Gene: KiSi\_85 Start: 53692, Stop: 53901, Start Num: 73

Candidate Starts for KiSi\_85:

(Start: 73 @53692 has 440 MA's), (Start: 78 @53713 has 16 MA's), (91, 53791),

Gene: Kimona\_65 Start: 41239, Stop: 41045, Start Num: 73

Candidate Starts for Kimona\_65:

(59, 41260), (Start: 73 @41239 has 440 MA's), (Start: 78 @41218 has 16 MA's), (83, 41182), (98, 41113), (102, 41071),

Gene: Kingmustik0402\_66 Start: 42152, Stop: 41958, Start Num: 73

Candidate Starts for Kingmustik0402\_66:

(Start: 68 @42158 has 8 MA's), (Start: 73 @42152 has 440 MA's), (Start: 76 @42137 has 6 MA's), (Start: 78 @42131 has 16 MA's), (102, 41984),

Gene: Kipper29\_73 Start: 41696, Stop: 41493, Start Num: 73

Candidate Starts for Kipper29\_73:

(Start: 73 @41696 has 440 MA's), (Start: 76 @41681 has 6 MA's), (Start: 78 @41675 has 16 MA's), (102, 41528),

Gene: KittenMittens\_62 Start: 40586, Stop: 40392, Start Num: 73

Candidate Starts for KittenMittens\_62:

(Start: 68 @40592 has 8 MA's), (Start: 73 @40586 has 440 MA's), (Start: 76 @40571 has 6 MA's), (Start: 78 @40565 has 16 MA's), (79, 40559), (95, 40475), (102, 40418),

Gene: Koreni\_65 Start: 41844, Stop: 41650, Start Num: 73

Candidate Starts for Koreni\_65:

(Start: 68 @41850 has 8 MA's), (Start: 73 @41844 has 440 MA's), (Start: 76 @41829 has 6 MA's), (Start: 78 @41823 has 16 MA's), (102, 41676),

Gene: Kratark\_65 Start: 42173, Stop: 41979, Start Num: 73

Candidate Starts for Kratark\_65:

(Start: 68 @42179 has 8 MA's), (Start: 73 @42173 has 440 MA's), (Start: 76 @42158 has 6 MA's), (Start: 78 @42152 has 16 MA's), (95, 42062), (99, 42035), (102, 42005),

Gene: Kremtemulon\_62 Start: 42269, Stop: 42075, Start Num: 73

Candidate Starts for Kremtemulon\_62:

(Start: 68 @42275 has 8 MA's), (Start: 73 @42269 has 440 MA's), (Start: 76 @42254 has 6 MA's), (Start: 78 @42248 has 16 MA's), (102, 42101),

Gene: Kristoff\_64 Start: 41900, Stop: 41706, Start Num: 73

Candidate Starts for Kristoff\_64:

(Start: 68 @41906 has 8 MA's), (Start: 73 @41900 has 440 MA's), (Start: 78 @41879 has 16 MA's), (102, 41732),

Gene: Krueger\_89 Start: 54175, Stop: 54384, Start Num: 73

Candidate Starts for Krueger\_89:

(9, 53977), (29, 54100), (Start: 73 @54175 has 440 MA's), (75, 54184), (Start: 78 @54196 has 16 MA's), (95, 54289), (102, 54346),

Gene: Kyee\_66 Start: 42161, Stop: 41967, Start Num: 73

Candidate Starts for Kyee\_66:

(Start: 68 @42167 has 8 MA's), (Start: 73 @42161 has 440 MA's), (Start: 76 @42146 has 6 MA's), (Start: 78 @42140 has 16 MA's), (102, 41993),

Gene: LBerry\_74 Start: 42636, Stop: 42442, Start Num: 73

Candidate Starts for LBerry\_74:

(6, 42927), (8, 42894), (20, 42786), (59, 42657), (Start: 68 @42642 has 8 MA's), (Start: 73 @42636 has 440 MA's), (Start: 78 @42615 has 16 MA's), (83, 42579), (98, 42510), (102, 42468),

Gene: LHTSCC\_68 Start: 42575, Stop: 42381, Start Num: 73

Candidate Starts for LHTSCC\_68:

(Start: 68 @42581 has 8 MA's), (Start: 73 @42575 has 440 MA's), (Start: 76 @42560 has 6 MA's), (Start: 78 @42554 has 16 MA's), (102, 42407),

Gene: LadyBird\_75 Start: 43885, Stop: 43691, Start Num: 73

Candidate Starts for LadyBird\_75:

(20, 43996), (Start: 73 @43885 has 440 MA's), (Start: 76 @43870 has 6 MA's), (Start: 78 @43864 has 16 MA's), (102, 43717),

Gene: Lambert1\_68 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for Lambert1\_68:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: LappelDuVide\_62 Start: 42162, Stop: 41968, Start Num: 73

Candidate Starts for LappelDuVide\_62:

(Start: 68 @42168 has 8 MA's), (Start: 73 @42162 has 440 MA's), (Start: 76 @42147 has 6 MA's), (Start: 78 @42141 has 16 MA's), (102, 41994),

Gene: LarryKay\_73 Start: 42661, Stop: 42467, Start Num: 73

Candidate Starts for LarryKay\_73:

(6, 42952), (8, 42919), (20, 42811), (59, 42682), (Start: 68 @42667 has 8 MA's), (Start: 73 @42661 has 440 MA's), (Start: 78 @42640 has 16 MA's), (83, 42604), (98, 42535), (102, 42493),

Gene: LaterM\_83 Start: 53857, Stop: 54054, Start Num: 73

Candidate Starts for LaterM\_83:

(42, 53788), (43, 53791), (46, 53800), (Start: 65 @53845 has 1 MA's), (Start: 73 @53857 has 440 MA's), (75, 53866), (Start: 78 @53878 has 16 MA's), (79, 53884), (98, 53986), (102, 54028),

Gene: LeMond\_84 Start: 53651, Stop: 53860, Start Num: 73

Candidate Starts for LeMond\_84:

(9, 53423), (29, 53552), (Start: 73 @53651 has 440 MA's), (Start: 78 @53672 has 16 MA's), (91, 53750), (102, 53822),



Gene: Lemur\_66 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for Lemur\_66:

(59, 42181), (Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: LeoAvram\_65 Start: 42166, Stop: 41972, Start Num: 73

Candidate Starts for LeoAvram\_65:

(Start: 68 @42172 has 8 MA's), (Start: 73 @42166 has 440 MA's), (Start: 76 @42151 has 6 MA's), (Start: 78 @42145 has 16 MA's), (102, 41998),

Gene: Leston\_76 Start: 51994, Stop: 52203, Start Num: 73

Candidate Starts for Leston\_76:

(Start: 73 @51994 has 440 MA's), (Start: 78 @52015 has 16 MA's), (102, 52165),

Gene: Leviathan\_73 Start: 43680, Stop: 43486, Start Num: 73

Candidate Starts for Leviathan\_73:

(Start: 73 @43680 has 440 MA's), (Start: 76 @43665 has 6 MA's), (Start: 78 @43659 has 16 MA's), (83, 43623), (102, 43512),

Gene: LilTurb\_72 Start: 43494, Stop: 43300, Start Num: 73

Candidate Starts for LilTurb\_72:

(Start: 73 @43494 has 440 MA's), (Start: 76 @43479 has 6 MA's), (Start: 78 @43473 has 16 MA's), (83, 43437), (102, 43326),

Gene: Lilith\_71 Start: 42625, Stop: 42431, Start Num: 73

Candidate Starts for Lilith\_71:

(6, 42916), (8, 42883), (20, 42775), (59, 42646), (Start: 68 @42631 has 8 MA's), (Start: 73 @42625 has 440 MA's), (Start: 78 @42604 has 16 MA's), (83, 42568), (98, 42499), (102, 42457),

Gene: LindNT\_81 Start: 53516, Stop: 53713, Start Num: 73

Candidate Starts for LindNT\_81:

(Start: 73 @53516 has 440 MA's), (75, 53525), (Start: 78 @53537 has 16 MA's), (79, 53543), (98, 53645), (102, 53687),

Gene: LittleB\_66 Start: 42164, Stop: 41970, Start Num: 73

Candidate Starts for LittleB\_66:

(Start: 68 @42170 has 8 MA's), (Start: 73 @42164 has 440 MA's), (Start: 76 @42149 has 6 MA's), (Start: 78 @42143 has 16 MA's), (102, 41996),

Gene: LittleGuy\_66 Start: 42059, Stop: 41865, Start Num: 73

Candidate Starts for LittleGuy\_66:

(Start: 68 @42065 has 8 MA's), (Start: 73 @42059 has 440 MA's), (Start: 76 @42044 has 6 MA's), (Start: 78 @42038 has 16 MA's), (102, 41891),

Gene: Llorens\_82 Start: 53507, Stop: 53683, Start Num: 78

Candidate Starts for Llorens\_82:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: LochMonster\_67 Start: 42402, Stop: 42208, Start Num: 73

Candidate Starts for LochMonster\_67:

(Start: 68 @42408 has 8 MA's), (Start: 73 @42402 has 440 MA's), (Start: 76 @42387 has 6 MA's),  
(Start: 78 @42381 has 16 MA's), (102, 42234),

Gene: LoneWolf\_74 Start: 42883, Stop: 42710, Start Num: 78

Candidate Starts for LoneWolf\_74:

(20, 43036), (Start: 78 @42883 has 16 MA's), (102, 42736),

Gene: Lorenzo\_66 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Lorenzo\_66:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's),  
(Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Loser\_73 Start: 43737, Stop: 43543, Start Num: 73

Candidate Starts for Loser\_73:

(Start: 73 @43737 has 440 MA's), (Start: 76 @43722 has 6 MA's), (Start: 78 @43716 has 16 MA's),  
(102, 43569),

Gene: Louie6\_72 Start: 42662, Stop: 42468, Start Num: 73

Candidate Starts for Louie6\_72:

(6, 42953), (8, 42920), (20, 42812), (59, 42683), (Start: 68 @42668 has 8 MA's), (Start: 73 @42662  
has 440 MA's), (Start: 78 @42641 has 16 MA's), (83, 42605), (98, 42536), (102, 42494),

Gene: LugYA\_76 Start: 42633, Stop: 42439, Start Num: 73

Candidate Starts for LugYA\_76:

(6, 42924), (8, 42891), (20, 42783), (59, 42654), (Start: 68 @42639 has 8 MA's), (Start: 73 @42633  
has 440 MA's), (Start: 78 @42612 has 16 MA's), (83, 42576), (98, 42507), (102, 42465),

Gene: Lunahalos\_83 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for Lunahalos\_83:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's),  
(79, 53513), (98, 53615), (102, 53657),

Gene: Lunsford\_66 Start: 42157, Stop: 41963, Start Num: 73

Candidate Starts for Lunsford\_66:

(Start: 68 @42163 has 8 MA's), (Start: 73 @42157 has 440 MA's), (Start: 76 @42142 has 6 MA's),  
(Start: 78 @42136 has 16 MA's), (102, 41989),

Gene: MA5\_68 Start: 41752, Stop: 41558, Start Num: 73

Candidate Starts for MA5\_68:

(Start: 68 @41758 has 8 MA's), (Start: 73 @41752 has 440 MA's), (Start: 78 @41731 has 16 MA's),  
(93, 41647), (95, 41641), (102, 41584),

Gene: MK4\_68 Start: 41827, Stop: 41633, Start Num: 73

Candidate Starts for MK4\_68:

(Start: 68 @41833 has 8 MA's), (Start: 73 @41827 has 440 MA's), (Start: 78 @41806 has 16 MA's),  
(95, 41716), (102, 41659),

Gene: MacnCheese\_86 Start: 54969, Stop: 55178, Start Num: 73

Candidate Starts for MacnCheese\_86:

(Start: 73 @54969 has 440 MA's), (Start: 78 @54990 has 16 MA's), (79, 54996), (91, 55068), (98,  
55098), (101, 55137), (102, 55140),

Gene: MadMarie\_71 Start: 42633, Stop: 42439, Start Num: 73

Candidate Starts for MadMarie\_71:

(6, 42924), (8, 42891), (20, 42783), (59, 42654), (Start: 68 @42639 has 8 MA's), (Start: 73 @42633 has 440 MA's), (Start: 78 @42612 has 16 MA's), (83, 42576), (98, 42507), (102, 42465),

Gene: Mainiac\_72 Start: 42631, Stop: 42431, Start Num: 68

Candidate Starts for Mainiac\_72:

(6, 42916), (8, 42883), (20, 42775), (59, 42646), (Start: 68 @42631 has 8 MA's), (Start: 73 @42625 has 440 MA's), (Start: 78 @42604 has 16 MA's), (83, 42568), (98, 42499), (102, 42457),

Gene: Malinsilva\_75 Start: 42624, Stop: 42430, Start Num: 73

Candidate Starts for Malinsilva\_75:

(6, 42915), (8, 42882), (20, 42774), (59, 42645), (Start: 68 @42630 has 8 MA's), (Start: 73 @42624 has 440 MA's), (Start: 78 @42603 has 16 MA's), (83, 42567), (98, 42498), (102, 42456),

Gene: Manu\_72 Start: 42449, Stop: 42255, Start Num: 73

Candidate Starts for Manu\_72:

(3, 42755), (6, 42740), (20, 42599), (59, 42470), (Start: 68 @42455 has 8 MA's), (Start: 73 @42449 has 440 MA's), (Start: 78 @42428 has 16 MA's), (83, 42392), (89, 42365), (98, 42323), (102, 42281),

Gene: MarQuardt\_73 Start: 42634, Stop: 42440, Start Num: 73

Candidate Starts for MarQuardt\_73:

(6, 42925), (8, 42892), (20, 42784), (59, 42655), (Start: 68 @42640 has 8 MA's), (Start: 73 @42634 has 440 MA's), (Start: 78 @42613 has 16 MA's), (83, 42577), (98, 42508), (102, 42466),

Gene: Marcoliusprime\_84 Start: 54874, Stop: 55095, Start Num: 63

Candidate Starts for Marcoliusprime\_84:

(13, 54769), (16, 54811), (Start: 63 @54874 has 5 MA's), (75, 54883), (Start: 78 @54895 has 16 MA's), (79, 54901), (102, 55045),

Gene: Margo\_68 Start: 42377, Stop: 42183, Start Num: 73

Candidate Starts for Margo\_68:

(20, 42527), (Start: 73 @42377 has 440 MA's), (Start: 78 @42356 has 16 MA's), (93, 42272), (95, 42266), (102, 42209),

Gene: Marie\_71 Start: 42632, Stop: 42438, Start Num: 73

Candidate Starts for Marie\_71:

(6, 42923), (8, 42890), (20, 42782), (59, 42653), (Start: 68 @42638 has 8 MA's), (Start: 73 @42632 has 440 MA's), (Start: 78 @42611 has 16 MA's), (83, 42575), (98, 42506), (102, 42464),

Gene: Marius\_73 Start: 42446, Stop: 42252, Start Num: 73

Candidate Starts for Marius\_73:

(6, 42737), (20, 42596), (59, 42467), (Start: 68 @42452 has 8 MA's), (Start: 73 @42446 has 440 MA's), (Start: 78 @42425 has 16 MA's), (83, 42389), (89, 42362), (98, 42320), (102, 42278),

Gene: MarkPhew\_85 Start: 53703, Stop: 53912, Start Num: 73

Candidate Starts for MarkPhew\_85:

(Start: 73 @53703 has 440 MA's), (Start: 78 @53724 has 16 MA's), (95, 53817), (102, 53874),

Gene: Marshawn\_82 Start: 54049, Stop: 54258, Start Num: 73

Candidate Starts for Marshawn\_82:

(Start: 73 @54049 has 440 MA's), (Start: 78 @54070 has 16 MA's), (79, 54076), (91, 54148), (98, 54178), (99, 54190), (102, 54220),

Gene: Maverick\_65 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Maverick\_65:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's),  
(Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Maxo\_67 Start: 42165, Stop: 41971, Start Num: 73

Candidate Starts for Maxo\_67:

(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's),  
(Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Mazhar510\_66 Start: 42164, Stop: 41970, Start Num: 73

Candidate Starts for Mazhar510\_66:

(Start: 68 @42170 has 8 MA's), (Start: 73 @42164 has 440 MA's), (Start: 76 @42149 has 6 MA's),  
(Start: 78 @42143 has 16 MA's), (102, 41996),

Gene: McFly\_74 Start: 42311, Stop: 42117, Start Num: 73

Candidate Starts for McFly\_74:

(Start: 73 @42311 has 440 MA's), (Start: 76 @42296 has 6 MA's), (Start: 78 @42290 has 16 MA's),  
(95, 42200), (102, 42143), (103, 42122),

Gene: MeaningOfLife\_85 Start: 54180, Stop: 54377, Start Num: 73

Candidate Starts for MeaningOfLife\_85:

(38, 54096), (42, 54111), (43, 54114), (46, 54123), (Start: 65 @54168 has 1 MA's), (Start: 72 @54177  
has 4 MA's), (Start: 73 @54180 has 440 MA's), (Start: 78 @54201 has 16 MA's), (79, 54207), (98,  
54309), (102, 54351),

Gene: Medusa\_66 Start: 42177, Stop: 41983, Start Num: 73

Candidate Starts for Medusa\_66:

(Start: 68 @42183 has 8 MA's), (Start: 73 @42177 has 440 MA's), (Start: 76 @42162 has 6 MA's),  
(Start: 78 @42156 has 16 MA's), (102, 42009),

Gene: MeeZee\_65 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for MeeZee\_65:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's),  
(Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: Megsy\_87 Start: 53805, Stop: 54002, Start Num: 73

Candidate Starts for Megsy\_87:

(42, 53736), (43, 53739), (46, 53748), (Start: 65 @53793 has 1 MA's), (Start: 73 @53805 has 440  
MA's), (Start: 78 @53826 has 16 MA's), (79, 53832), (98, 53934), (102, 53976),

Gene: Melvin\_68 Start: 42158, Stop: 41964, Start Num: 73

Candidate Starts for Melvin\_68:

(Start: 68 @42164 has 8 MA's), (Start: 73 @42158 has 440 MA's), (Start: 76 @42143 has 6 MA's),  
(Start: 78 @42137 has 16 MA's), (102, 41990),

Gene: Methuselah\_66 Start: 42635, Stop: 42462, Start Num: 78

Candidate Starts for Methuselah\_66:

(6, 42947), (8, 42914), (20, 42806), (59, 42677), (Start: 68 @42662 has 8 MA's), (Start: 73 @42656  
has 440 MA's), (Start: 78 @42635 has 16 MA's), (83, 42599), (98, 42530), (102, 42488),

Gene: Microwolf\_69 Start: 42627, Stop: 42454, Start Num: 78

Candidate Starts for Microwolf\_69:

(6, 42939), (8, 42906), (20, 42798), (59, 42669), (Start: 68 @42654 has 8 MA's), (Start: 73 @42648 has 440 MA's), (Start: 78 @42627 has 16 MA's), (83, 42591), (98, 42522), (102, 42480),

Gene: MiculUcigas\_72 Start: 43180, Stop: 42986, Start Num: 73

Candidate Starts for MiculUcigas\_72:

(Start: 73 @43180 has 440 MA's), (Start: 76 @43165 has 6 MA's), (Start: 78 @43159 has 16 MA's), (102, 43012), (103, 42991),

Gene: Millski\_65 Start: 42164, Stop: 41970, Start Num: 73

Candidate Starts for Millski\_65:

(Start: 68 @42170 has 8 MA's), (Start: 73 @42164 has 440 MA's), (Start: 76 @42149 has 6 MA's), (Start: 78 @42143 has 16 MA's), (102, 41996),

Gene: Milly\_85 Start: 54955, Stop: 55176, Start Num: 72

Candidate Starts for Milly\_85:

(13, 54751), (16, 54793), (57, 54931), (Start: 72 @54955 has 4 MA's), (75, 54964), (Start: 78 @54976 has 16 MA's), (79, 54982), (102, 55126),

Gene: Miramae\_65 Start: 41958, Stop: 41764, Start Num: 73

Candidate Starts for Miramae\_65:

(Start: 68 @41964 has 8 MA's), (Start: 73 @41958 has 440 MA's), (Start: 76 @41943 has 6 MA's), (Start: 78 @41937 has 16 MA's), (95, 41847), (102, 41790),

Gene: Miryou\_80 Start: 54464, Stop: 54652, Start Num: 78

Candidate Starts for Miryou\_80:

(30, 54353), (32, 54359), (Start: 68 @54443 has 8 MA's), (Start: 78 @54464 has 16 MA's), (102, 54614),

Gene: Misomonster\_74 Start: 42659, Stop: 42465, Start Num: 73

Candidate Starts for Misomonster\_74:

(6, 42950), (8, 42917), (20, 42809), (59, 42680), (Start: 68 @42665 has 8 MA's), (Start: 73 @42659 has 440 MA's), (Start: 78 @42638 has 16 MA's), (83, 42602), (98, 42533), (102, 42491),

Gene: MoneyMay\_72 Start: 42632, Stop: 42438, Start Num: 73

Candidate Starts for MoneyMay\_72:

(6, 42923), (8, 42890), (20, 42782), (59, 42653), (Start: 68 @42638 has 8 MA's), (Start: 73 @42632 has 440 MA's), (Start: 78 @42611 has 16 MA's), (83, 42575), (98, 42506), (102, 42464),

Gene: Morpher26\_65 Start: 42433, Stop: 42239, Start Num: 73

Candidate Starts for Morpher26\_65:

(Start: 68 @42439 has 8 MA's), (Start: 73 @42433 has 440 MA's), (Start: 76 @42418 has 6 MA's), (Start: 78 @42412 has 16 MA's), (102, 42265),

Gene: Morrow\_67 Start: 42178, Stop: 41984, Start Num: 73

Candidate Starts for Morrow\_67:

(Start: 68 @42184 has 8 MA's), (Start: 73 @42178 has 440 MA's), (Start: 76 @42163 has 6 MA's), (Start: 78 @42157 has 16 MA's), (102, 42010),

Gene: MrMiyagi\_49 Start: 36981, Stop: 37241, Start Num: 55

Candidate Starts for MrMiyagi\_49:

(Start: 55 @36981 has 3 MA's), (66, 37002), (80, 37053), (85, 37083), (96, 37143), (102, 37197),

Gene: MuchMore\_76 Start: 42624, Stop: 42430, Start Num: 73

Candidate Starts for MuchMore\_76:

(6, 42915), (8, 42882), (20, 42774), (59, 42645), (Start: 68 @42630 has 8 MA's), (Start: 73 @42624 has 440 MA's), (Start: 78 @42603 has 16 MA's), (83, 42567), (98, 42498), (102, 42456),

Gene: Mudslide\_79 Start: 64155, Stop: 63943, Start Num: 73

Candidate Starts for Mudslide\_79:

(12, 64368), (54, 64191), (71, 64161), (Start: 73 @64155 has 440 MA's), (Start: 78 @64134 has 16 MA's), (79, 64128), (89, 64053), (98, 64011), (102, 63969),

Gene: Mufasa\_84 Start: 54439, Stop: 54636, Start Num: 72

Candidate Starts for Mufasa\_84:

(13, 54235), (16, 54277), (57, 54415), (Start: 72 @54439 has 4 MA's), (75, 54448), (Start: 78 @54460 has 16 MA's), (79, 54466), (102, 54610),

Gene: Mundrea\_65 Start: 42426, Stop: 42232, Start Num: 73

Candidate Starts for Mundrea\_65:

(Start: 68 @42432 has 8 MA's), (Start: 73 @42426 has 440 MA's), (Start: 76 @42411 has 6 MA's), (Start: 78 @42405 has 16 MA's), (87, 42348), (99, 42288), (102, 42258),

Gene: Murucutumbu\_83 Start: 54402, Stop: 54578, Start Num: 78

Candidate Starts for Murucutumbu\_83:

(28, 54276), (29, 54282), (Start: 73 @54381 has 440 MA's), (75, 54390), (Start: 78 @54402 has 16 MA's), (79, 54408), (98, 54510), (102, 54552),

Gene: Mynx\_84 Start: 53800, Stop: 53997, Start Num: 73

Candidate Starts for Mynx\_84:

(Start: 73 @53800 has 440 MA's), (75, 53809), (Start: 78 @53821 has 16 MA's), (79, 53827), (98, 53929), (102, 53971),

Gene: NaSiaTalie\_72 Start: 43274, Stop: 43080, Start Num: 73

Candidate Starts for NaSiaTalie\_72:

(Start: 73 @43274 has 440 MA's), (Start: 76 @43259 has 6 MA's), (Start: 78 @43253 has 16 MA's), (102, 43106), (103, 43085),

Gene: Nanao\_78 Start: 62948, Stop: 62736, Start Num: 73

Candidate Starts for Nanao\_78:

(23, 63083), (53, 62990), (64, 62963), (Start: 73 @62948 has 440 MA's), (Start: 78 @62927 has 16 MA's), (79, 62921), (89, 62846), (98, 62804), (102, 62762),

Gene: Nebs\_67 Start: 42175, Stop: 41981, Start Num: 73

Candidate Starts for Nebs\_67:

(Start: 68 @42181 has 8 MA's), (Start: 73 @42175 has 440 MA's), (Start: 76 @42160 has 6 MA's), (Start: 78 @42154 has 16 MA's), (102, 42007),

Gene: Neeharika16\_72 Start: 41777, Stop: 41583, Start Num: 73

Candidate Starts for Neeharika16\_72:

(Start: 73 @41777 has 440 MA's), (Start: 76 @41762 has 6 MA's), (Start: 78 @41756 has 16 MA's), (95, 41666), (102, 41609), (103, 41588),

Gene: Nemo27\_65 Start: 42162, Stop: 41968, Start Num: 73

Candidate Starts for Nemo27\_65:

(Start: 68 @42168 has 8 MA's), (Start: 73 @42162 has 440 MA's), (Start: 76 @42147 has 6 MA's), (Start: 78 @42141 has 16 MA's), (102, 41994),

Gene: Nibb\_85 Start: 53367, Stop: 53576, Start Num: 73

Candidate Starts for Nibb\_85:

(34, 53286), (60, 53355), (Start: 73 @53367 has 440 MA's), (Start: 78 @53388 has 16 MA's), (95, 53481), (102, 53538),

Gene: NicoleTera\_69 Start: 43300, Stop: 43106, Start Num: 73

Candidate Starts for NicoleTera\_69:

(32, 43378), (Start: 73 @43300 has 440 MA's), (Start: 76 @43285 has 6 MA's), (Start: 78 @43279 has 16 MA's), (102, 43132),

Gene: Nigel\_75 Start: 62302, Stop: 62090, Start Num: 73

Candidate Starts for Nigel\_75:

(52, 62347), (54, 62338), (71, 62308), (Start: 73 @62302 has 440 MA's), (Start: 78 @62281 has 16 MA's), (79, 62275), (89, 62200), (95, 62173), (100, 62122), (102, 62116),

Gene: Noella\_68 Start: 42352, Stop: 42158, Start Num: 73

Candidate Starts for Noella\_68:

(20, 42502), (Start: 73 @42352 has 440 MA's), (Start: 78 @42331 has 16 MA's), (93, 42247), (95, 42241), (102, 42184),

Gene: Noelle\_66 Start: 42741, Stop: 42547, Start Num: 73

Candidate Starts for Noelle\_66:

(Start: 68 @42747 has 8 MA's), (Start: 73 @42741 has 440 MA's), (Start: 78 @42720 has 16 MA's), (95, 42630), (102, 42573),

Gene: Norbert\_64 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for Norbert\_64:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: NorthStar\_64 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for NorthStar\_64:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: NotAPhaseMom\_65 Start: 42167, Stop: 41973, Start Num: 73

Candidate Starts for NotAPhaseMom\_65:

(Start: 68 @42173 has 8 MA's), (Start: 73 @42167 has 440 MA's), (Start: 76 @42152 has 6 MA's), (Start: 78 @42146 has 16 MA's), (102, 41999),

Gene: Nyxis\_65 Start: 42053, Stop: 41859, Start Num: 73

Candidate Starts for Nyxis\_65:

(Start: 68 @42059 has 8 MA's), (Start: 73 @42053 has 440 MA's), (Start: 76 @42038 has 6 MA's), (Start: 78 @42032 has 16 MA's), (102, 41885),

Gene: OKaNui\_65 Start: 42213, Stop: 42019, Start Num: 73

Candidate Starts for OKaNui\_65:

(Start: 68 @42219 has 8 MA's), (Start: 73 @42213 has 440 MA's), (Start: 76 @42198 has 6 MA's), (Start: 78 @42192 has 16 MA's), (102, 42045),

Gene: Obama12\_67 Start: 42559, Stop: 42365, Start Num: 73

Candidate Starts for Obama12\_67:

(Start: 68 @42565 has 8 MA's), (Start: 73 @42559 has 440 MA's), (Start: 76 @42544 has 6 MA's),  
(Start: 78 @42538 has 16 MA's), (102, 42391),

Gene: Odin\_72 Start: 42320, Stop: 42099, Start Num: 73

Candidate Starts for Odin\_72:

(Start: 73 @42320 has 440 MA's), (Start: 78 @42299 has 16 MA's), (79, 42293), (102, 42152),

Gene: Ohfah\_67 Start: 42175, Stop: 41981, Start Num: 73

Candidate Starts for Ohfah\_67:

(Start: 68 @42181 has 8 MA's), (Start: 73 @42175 has 440 MA's), (Start: 76 @42160 has 6 MA's),  
(Start: 78 @42154 has 16 MA's), (102, 42007),

Gene: OkiRoe\_77 Start: 52364, Stop: 52573, Start Num: 73

Candidate Starts for OkiRoe\_77:

(15, 52199), (31, 52280), (35, 52289), (38, 52295), (41, 52307), (59, 52352), (Start: 73 @52364 has  
440 MA's), (Start: 78 @52385 has 16 MA's), (79, 52391), (102, 52535),

Gene: OlanP\_71 Start: 42622, Stop: 42428, Start Num: 73

Candidate Starts for OlanP\_71:

(3, 42928), (6, 42913), (20, 42772), (59, 42643), (Start: 68 @42628 has 8 MA's), (Start: 73 @42622  
has 440 MA's), (Start: 78 @42601 has 16 MA's), (83, 42565), (89, 42538), (98, 42496), (102, 42454),

Gene: Ollie\_73 Start: 42503, Stop: 42309, Start Num: 73

Candidate Starts for Ollie\_73:

(6, 42794), (8, 42761), (20, 42653), (59, 42524), (Start: 68 @42509 has 8 MA's), (Start: 73 @42503  
has 440 MA's), (Start: 78 @42482 has 16 MA's), (83, 42446), (98, 42377), (102, 42335),

Gene: Omnicron\_80 Start: 53454, Stop: 53666, Start Num: 67

Candidate Starts for Omnicron\_80:

(38, 53382), (59, 53445), (Start: 67 @53454 has 7 MA's), (Start: 73 @53457 has 440 MA's), (Start: 78  
@53478 has 16 MA's), (79, 53484), (102, 53628),

Gene: Oscar\_85 Start: 53572, Stop: 53781, Start Num: 73

Candidate Starts for Oscar\_85:

(60, 53560), (Start: 73 @53572 has 440 MA's), (Start: 78 @53593 has 16 MA's), (92, 53677), (102,  
53743),

Gene: P28Green\_73 Start: 42635, Stop: 42441, Start Num: 73

Candidate Starts for P28Green\_73:

(6, 42926), (8, 42893), (20, 42785), (59, 42656), (Start: 68 @42641 has 8 MA's), (Start: 73 @42635  
has 440 MA's), (Start: 78 @42614 has 16 MA's), (83, 42578), (98, 42509), (102, 42467),

Gene: PGHhamlin\_75 Start: 42624, Stop: 42430, Start Num: 73

Candidate Starts for PGHhamlin\_75:

(6, 42915), (8, 42882), (20, 42774), (59, 42645), (Start: 68 @42630 has 8 MA's), (Start: 73 @42624  
has 440 MA's), (Start: 78 @42603 has 16 MA's), (83, 42567), (98, 42498), (102, 42456),

Gene: Padfoot\_83 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for Padfoot\_83:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's),  
(79, 53710), (98, 53812), (102, 53854),

Gene: Padpat\_86 Start: 53678, Stop: 53875, Start Num: 73



Candidate Starts for Padpat\_86:

(43, 53612), (Start: 73 @53678 has 440 MA's), (Start: 78 @53699 has 16 MA's), (79, 53705), (91, 53777), (98, 53807), (102, 53849),

Gene: Palestino\_65 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Palestino\_65:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Panamaxus\_66 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for Panamaxus\_66:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: Paola\_76 Start: 51877, Stop: 52086, Start Num: 73

Candidate Starts for Paola\_76:

(Start: 73 @51877 has 440 MA's), (Start: 78 @51898 has 16 MA's), (102, 52048),

Gene: Pawn\_71 Start: 42453, Stop: 42259, Start Num: 73

Candidate Starts for Pawn\_71:

(6, 42744), (20, 42603), (59, 42474), (Start: 68 @42459 has 8 MA's), (Start: 73 @42453 has 440 MA's), (Start: 78 @42432 has 16 MA's), (83, 42396), (89, 42369), (98, 42327), (102, 42285),

Gene: PeaceMeal1\_63 Start: 40587, Stop: 40393, Start Num: 73

Candidate Starts for PeaceMeal1\_63:

(Start: 68 @40593 has 8 MA's), (Start: 73 @40587 has 440 MA's), (Start: 78 @40566 has 16 MA's), (95, 40476), (102, 40419),

Gene: Peaches\_64 Start: 42162, Stop: 41968, Start Num: 73

Candidate Starts for Peaches\_64:

(Start: 68 @42168 has 8 MA's), (Start: 73 @42162 has 440 MA's), (Start: 76 @42147 has 6 MA's), (Start: 78 @42141 has 16 MA's), (102, 41994),

Gene: Peel\_83 Start: 53488, Stop: 53685, Start Num: 73

Candidate Starts for Peel\_83:

(Start: 65 @53479 has 1 MA's), (Start: 73 @53488 has 440 MA's), (Start: 78 @53509 has 16 MA's), (79, 53515), (98, 53617), (102, 53659),

Gene: Pembroke\_73 Start: 42633, Stop: 42439, Start Num: 73

Candidate Starts for Pembroke\_73:

(6, 42924), (8, 42891), (20, 42783), (59, 42654), (Start: 68 @42639 has 8 MA's), (Start: 73 @42633 has 440 MA's), (Start: 78 @42612 has 16 MA's), (83, 42576), (98, 42507), (102, 42465),

Gene: Penny1\_73 Start: 42636, Stop: 42442, Start Num: 73

Candidate Starts for Penny1\_73:

(6, 42927), (8, 42894), (20, 42786), (59, 42657), (Start: 68 @42642 has 8 MA's), (Start: 73 @42636 has 440 MA's), (Start: 78 @42615 has 16 MA's), (83, 42579), (98, 42510), (102, 42468),

Gene: Perplexer\_65 Start: 42409, Stop: 42215, Start Num: 73

Candidate Starts for Perplexer\_65:

(Start: 68 @42415 has 8 MA's), (Start: 73 @42409 has 440 MA's), (Start: 76 @42394 has 6 MA's), (Start: 78 @42388 has 16 MA's), (102, 42241),

Gene: PeterPeter\_66 Start: 42160, Stop: 41966, Start Num: 73  
Candidate Starts for PeterPeter\_66:  
(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's),  
(Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: PetiteSangsue\_65 Start: 42412, Stop: 42218, Start Num: 73  
Candidate Starts for PetiteSangsue\_65:  
(Start: 68 @42418 has 8 MA's), (Start: 73 @42412 has 440 MA's), (Start: 76 @42397 has 6 MA's),  
(Start: 78 @42391 has 16 MA's), (102, 42244),

Gene: Ph8s\_75 Start: 42385, Stop: 42191, Start Num: 73  
Candidate Starts for Ph8s\_75:  
(Start: 73 @42385 has 440 MA's), (Start: 78 @42364 has 16 MA's), (83, 42328), (98, 42259),

Gene: Phacado\_66 Start: 42162, Stop: 41968, Start Num: 73  
Candidate Starts for Phacado\_66:  
(Start: 68 @42168 has 8 MA's), (Start: 73 @42162 has 440 MA's), (Start: 76 @42147 has 6 MA's),  
(Start: 78 @42141 has 16 MA's), (102, 41994),

Gene: Phantastic\_70 Start: 42013, Stop: 41819, Start Num: 73  
Candidate Starts for Phantastic\_70:  
(Start: 68 @42019 has 8 MA's), (Start: 73 @42013 has 440 MA's), (Start: 78 @41992 has 16 MA's),  
(92, 41911), (95, 41902), (102, 41845),

Gene: Pharb\_84 Start: 53985, Stop: 54194, Start Num: 73  
Candidate Starts for Pharb\_84:  
(59, 53973), (Start: 67 @53982 has 7 MA's), (Start: 73 @53985 has 440 MA's), (Start: 78 @54006 has  
16 MA's), (79, 54012), (95, 54099), (98, 54114), (102, 54156),

Gene: Phelipe\_67 Start: 42175, Stop: 41981, Start Num: 73  
Candidate Starts for Phelipe\_67:  
(Start: 68 @42181 has 8 MA's), (Start: 73 @42175 has 440 MA's), (Start: 76 @42160 has 6 MA's),  
(Start: 78 @42154 has 16 MA's), (102, 42007),

Gene: Phighter1804\_66 Start: 42227, Stop: 42033, Start Num: 73  
Candidate Starts for Phighter1804\_66:  
(Start: 68 @42233 has 8 MA's), (Start: 73 @42227 has 440 MA's), (Start: 76 @42212 has 6 MA's),  
(Start: 78 @42206 has 16 MA's), (102, 42059),

Gene: PhishRPhriends\_69 Start: 41630, Stop: 41436, Start Num: 73  
Candidate Starts for PhishRPhriends\_69:  
(3, 41936), (6, 41921), (20, 41780), (59, 41651), (Start: 68 @41636 has 8 MA's), (Start: 73 @41630  
has 440 MA's), (Start: 78 @41609 has 16 MA's), (83, 41573), (89, 41546), (98, 41504), (102, 41462),

Gene: Phoebe\_74 Start: 42625, Stop: 42431, Start Num: 73  
Candidate Starts for Phoebe\_74:  
(6, 42916), (8, 42883), (20, 42775), (59, 42646), (Start: 68 @42631 has 8 MA's), (Start: 73 @42625  
has 440 MA's), (Start: 78 @42604 has 16 MA's), (83, 42568), (98, 42499), (102, 42457),

Gene: Phontbonne\_66 Start: 42069, Stop: 41875, Start Num: 73  
Candidate Starts for Phontbonne\_66:  
(Start: 68 @42075 has 8 MA's), (Start: 73 @42069 has 440 MA's), (Start: 76 @42054 has 6 MA's),  
(Start: 78 @42048 has 16 MA's), (102, 41901),

Gene: Phoxy\_73 Start: 42657, Stop: 42463, Start Num: 73

Candidate Starts for Phoxy\_73:

(6, 42948), (8, 42915), (20, 42807), (59, 42678), (Start: 68 @42663 has 8 MA's), (Start: 73 @42657 has 440 MA's), (Start: 78 @42636 has 16 MA's), (83, 42600), (98, 42531), (102, 42489),

Gene: Phrank\_90 Start: 54330, Stop: 54539, Start Num: 73

Candidate Starts for Phrank\_90:

(17, 54180), (33, 54249), (37, 54258), (Start: 73 @54330 has 440 MA's), (Start: 78 @54351 has 16 MA's), (79, 54357), (95, 54444), (98, 54459), (102, 54501),

Gene: Piatt\_82 Start: 53683, Stop: 53880, Start Num: 73

Candidate Starts for Piatt\_82:

(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's), (79, 53710), (98, 53812), (102, 53854),

Gene: Pipcraft\_63 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for Pipcraft\_63:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Piro94\_71 Start: 43242, Stop: 43048, Start Num: 73

Candidate Starts for Piro94\_71:

(Start: 73 @43242 has 440 MA's), (Start: 76 @43227 has 6 MA's), (Start: 78 @43221 has 16 MA's), (102, 43074),

Gene: Pistachio\_68 Start: 41942, Stop: 41748, Start Num: 73

Candidate Starts for Pistachio\_68:

(Start: 68 @41948 has 8 MA's), (Start: 73 @41942 has 440 MA's), (Start: 78 @41921 has 16 MA's), (93, 41837), (98, 41816), (102, 41774),

Gene: Pixie\_84 Start: 54143, Stop: 54331, Start Num: 78

Candidate Starts for Pixie\_84:

(Start: 73 @54122 has 440 MA's), (Start: 78 @54143 has 16 MA's), (79, 54149), (98, 54251), (102, 54293),

Gene: Pmask\_72 Start: 42313, Stop: 42119, Start Num: 73

Candidate Starts for Pmask\_72:

(Start: 73 @42313 has 440 MA's), (Start: 76 @42298 has 6 MA's), (Start: 78 @42292 has 16 MA's), (95, 42202), (102, 42145), (103, 42124),

Gene: Pocahontas\_67 Start: 42348, Stop: 42154, Start Num: 73

Candidate Starts for Pocahontas\_67:

(20, 42498), (Start: 73 @42348 has 440 MA's), (Start: 78 @42327 has 16 MA's), (93, 42243), (95, 42237), (102, 42180),

Gene: Pokerus\_83 Start: 53501, Stop: 53698, Start Num: 73

Candidate Starts for Pokerus\_83:

(Start: 73 @53501 has 440 MA's), (75, 53510), (Start: 78 @53522 has 16 MA's), (79, 53528), (98, 53630), (102, 53672),

Gene: Polymorphads\_66 Start: 42156, Stop: 41962, Start Num: 73

Candidate Starts for Polymorphads\_66:

(Start: 68 @42162 has 8 MA's), (Start: 73 @42156 has 440 MA's), (Start: 76 @42141 has 6 MA's),  
(Start: 78 @42135 has 16 MA's), (102, 41988),

Gene: Poompha\_62 Start: 40585, Stop: 40391, Start Num: 73

Candidate Starts for Poompha\_62:

(Start: 68 @40591 has 8 MA's), (Start: 73 @40585 has 440 MA's), (Start: 78 @40564 has 16 MA's),  
(95, 40474), (102, 40417),

Gene: Popcicle\_68 Start: 42348, Stop: 42154, Start Num: 73

Candidate Starts for Popcicle\_68:

(20, 42498), (Start: 73 @42348 has 440 MA's), (Start: 78 @42327 has 16 MA's), (93, 42243), (95,  
42237), (102, 42180),

Gene: Poster\_77 Start: 62949, Stop: 62737, Start Num: 73

Candidate Starts for Poster\_77:

(23, 63084), (53, 62991), (64, 62964), (Start: 73 @62949 has 440 MA's), (Start: 78 @62928 has 16  
MA's), (79, 62922), (89, 62847), (98, 62805), (102, 62763),

Gene: PotatoSplit\_74 Start: 42636, Stop: 42442, Start Num: 73

Candidate Starts for PotatoSplit\_74:

(6, 42927), (8, 42894), (20, 42786), (59, 42657), (Start: 68 @42642 has 8 MA's), (Start: 73 @42636  
has 440 MA's), (Start: 78 @42615 has 16 MA's), (83, 42579), (98, 42510), (102, 42468),

Gene: Power\_71 Start: 43615, Stop: 43421, Start Num: 73

Candidate Starts for Power\_71:

(Start: 73 @43615 has 440 MA's), (Start: 78 @43594 has 16 MA's),

Gene: Prithvi\_85 Start: 53829, Stop: 54005, Start Num: 78

Candidate Starts for Prithvi\_85:

(43, 53742), (Start: 73 @53808 has 440 MA's), (Start: 78 @53829 has 16 MA's), (79, 53835), (98,  
53937), (102, 53979),

Gene: Pumbaa\_66 Start: 42108, Stop: 41914, Start Num: 73

Candidate Starts for Pumbaa\_66:

(Start: 68 @42114 has 8 MA's), (Start: 73 @42108 has 440 MA's), (Start: 76 @42093 has 6 MA's),  
(Start: 78 @42087 has 16 MA's), (102, 41940),

Gene: Puppy\_69 Start: 42014, Stop: 41820, Start Num: 73

Candidate Starts for Puppy\_69:

(Start: 68 @42020 has 8 MA's), (Start: 73 @42014 has 440 MA's), (Start: 78 @41993 has 16 MA's),  
(93, 41909), (98, 41888), (102, 41846),

Gene: PurpleHaze\_72 Start: 42448, Stop: 42254, Start Num: 73

Candidate Starts for PurpleHaze\_72:

(6, 42739), (20, 42598), (59, 42469), (Start: 68 @42454 has 8 MA's), (Start: 73 @42448 has 440  
MA's), (Start: 78 @42427 has 16 MA's), (83, 42391), (89, 42364), (98, 42322), (102, 42280),

Gene: QueenBeesly\_72 Start: 43572, Stop: 43378, Start Num: 73

Candidate Starts for QueenBeesly\_72:

(Start: 73 @43572 has 440 MA's), (Start: 78 @43551 has 16 MA's),

Gene: QuincyRose\_81 Start: 53498, Stop: 53695, Start Num: 73

Candidate Starts for QuincyRose\_81:

(Start: 73 @53498 has 440 MA's), (75, 53507), (Start: 78 @53519 has 16 MA's), (79, 53525), (98, 53627), (102, 53669),

Gene: QuinnKiro\_67 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for QuinnKiro\_67:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: Rahalelujah\_73 Start: 42509, Stop: 42336, Start Num: 78

Candidate Starts for Rahalelujah\_73:

(Start: 78 @42509 has 16 MA's), (83, 42473), (84, 42470), (91, 42434), (102, 42362),

Gene: Ramen\_84 Start: 53256, Stop: 53453, Start Num: 73

Candidate Starts for Ramen\_84:

(Start: 65 @53247 has 1 MA's), (Start: 73 @53256 has 440 MA's), (Start: 78 @53277 has 16 MA's), (79, 53283), (98, 53385), (102, 53427),

Gene: Rando14\_78 Start: 51872, Stop: 52081, Start Num: 73

Candidate Starts for Rando14\_78:

(38, 51797), (59, 51860), (Start: 67 @51869 has 7 MA's), (Start: 73 @51872 has 440 MA's), (Start: 78 @51893 has 16 MA's), (79, 51899), (102, 52043),

Gene: Rapunzel97\_85 Start: 53472, Stop: 53669, Start Num: 73

Candidate Starts for Rapunzel97\_85:

(Start: 73 @53472 has 440 MA's), (75, 53481), (Start: 78 @53493 has 16 MA's), (79, 53499), (98, 53601), (102, 53643),

Gene: Rebeuca\_66 Start: 41901, Stop: 41707, Start Num: 73

Candidate Starts for Rebeuca\_66:

(Start: 68 @41907 has 8 MA's), (Start: 73 @41901 has 440 MA's), (Start: 78 @41880 has 16 MA's), (102, 41733),

Gene: Relief\_65 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for Relief\_65:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: ResDef\_66 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for ResDef\_66:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: Retro23\_72 Start: 43303, Stop: 43109, Start Num: 73

Candidate Starts for Retro23\_72:

(Start: 73 @43303 has 440 MA's), (Start: 78 @43282 has 16 MA's),

Gene: RhynO\_65 Start: 41542, Stop: 41348, Start Num: 73

Candidate Starts for RhynO\_65:

(58, 41566), (Start: 68 @41548 has 8 MA's), (Start: 73 @41542 has 440 MA's), (Start: 78 @41521 has 16 MA's), (102, 41374),

Gene: Rich\_77 Start: 63385, Stop: 63173, Start Num: 73

Candidate Starts for Rich\_77:

(50, 63430), (61, 63400), (70, 63388), (Start: 73 @63385 has 440 MA's), (Start: 78 @63364 has 16 MA's), (81, 63334), (84, 63322), (94, 63259), (95, 63256), (100, 63205), (102, 63199),

Gene: Rockstar\_67 Start: 41836, Stop: 41642, Start Num: 73

Candidate Starts for Rockstar\_67:

(Start: 68 @41842 has 8 MA's), (Start: 73 @41836 has 440 MA's), (Start: 78 @41815 has 16 MA's), (93, 41731), (95, 41725), (102, 41668),

Gene: Romney\_65 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for Romney\_65:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: Roosevelt\_64 Start: 42165, Stop: 41971, Start Num: 73

Candidate Starts for Roosevelt\_64:

(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's), (Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Rosmarinus\_83 Start: 53474, Stop: 53671, Start Num: 73

Candidate Starts for Rosmarinus\_83:

(Start: 65 @53465 has 1 MA's), (Start: 73 @53474 has 440 MA's), (Start: 78 @53495 has 16 MA's), (79, 53501), (98, 53603), (102, 53645),

Gene: Ruin\_66 Start: 42156, Stop: 41962, Start Num: 73

Candidate Starts for Ruin\_66:

(Start: 68 @42162 has 8 MA's), (Start: 73 @42156 has 440 MA's), (Start: 76 @42141 has 6 MA's), (Start: 78 @42135 has 16 MA's), (102, 41988),

Gene: Rummer\_72 Start: 42660, Stop: 42466, Start Num: 73

Candidate Starts for Rummer\_72:

(6, 42951), (8, 42918), (20, 42810), (59, 42681), (Start: 68 @42666 has 8 MA's), (Start: 73 @42660 has 440 MA's), (Start: 78 @42639 has 16 MA's), (83, 42603), (98, 42534), (102, 42492),

Gene: Sabertooth\_66 Start: 42165, Stop: 41971, Start Num: 73

Candidate Starts for Sabertooth\_66:

(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's), (Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Sabia\_71 Start: 42640, Stop: 42446, Start Num: 73

Candidate Starts for Sabia\_71:

(6, 42931), (8, 42898), (20, 42790), (59, 42661), (Start: 68 @42646 has 8 MA's), (Start: 73 @42640 has 440 MA's), (Start: 78 @42619 has 16 MA's), (83, 42583), (98, 42514), (102, 42472),

Gene: Sabinator\_71 Start: 42631, Stop: 42437, Start Num: 73

Candidate Starts for Sabinator\_71:

(6, 42922), (8, 42889), (20, 42781), (59, 42652), (Start: 68 @42637 has 8 MA's), (Start: 73 @42631 has 440 MA's), (Start: 78 @42610 has 16 MA's), (83, 42574), (98, 42505), (102, 42463),

Gene: SamuelLPlaqson\_83 Start: 53754, Stop: 53951, Start Num: 73

Candidate Starts for SamuelLPlaqson\_83:

(43, 53688), (Start: 73 @53754 has 440 MA's), (Start: 78 @53775 has 16 MA's), (79, 53781), (91, 53853), (98, 53883), (102, 53925),

Gene: SaturnRing\_68 Start: 42395, Stop: 42201, Start Num: 73  
Candidate Starts for SaturnRing\_68:  
(Start: 68 @42401 has 8 MA's), (Start: 73 @42395 has 440 MA's), (Start: 78 @42374 has 16 MA's),  
(93, 42290), (98, 42269), (102, 42227),

Gene: Scamp\_66 Start: 42165, Stop: 41971, Start Num: 73  
Candidate Starts for Scamp\_66:  
(Start: 68 @42171 has 8 MA's), (Start: 73 @42165 has 440 MA's), (Start: 76 @42150 has 6 MA's),  
(Start: 78 @42144 has 16 MA's), (102, 41997),

Gene: Scarlett\_84 Start: 53448, Stop: 53657, Start Num: 73  
Candidate Starts for Scarlett\_84:  
(9, 53220), (29, 53349), (Start: 73 @53448 has 440 MA's), (Start: 78 @53469 has 16 MA's), (91,  
53547), (102, 53619),

Gene: Scout\_67 Start: 41546, Stop: 41352, Start Num: 73  
Candidate Starts for Scout\_67:  
(Start: 68 @41552 has 8 MA's), (Start: 73 @41546 has 440 MA's), (Start: 78 @41525 has 16 MA's),  
(93, 41441), (98, 41420), (102, 41378),

Gene: SemperFi\_72 Start: 43460, Stop: 43266, Start Num: 73  
Candidate Starts for SemperFi\_72:  
(Start: 73 @43460 has 440 MA's), (Start: 78 @43439 has 16 MA's),

Gene: Serendipitous\_77 Start: 62084, Stop: 61872, Start Num: 73  
Candidate Starts for Serendipitous\_77:  
(24, 62216), (40, 62165), (Start: 73 @62084 has 440 MA's), (75, 62075), (Start: 78 @62063 has 16  
MA's), (81, 62033), (95, 61955), (100, 61904), (102, 61898),

Gene: Serenity\_75 Start: 42821, Stop: 42627, Start Num: 73  
Candidate Starts for Serenity\_75:  
(20, 42977), (59, 42845), (Start: 73 @42821 has 440 MA's), (Start: 78 @42800 has 16 MA's), (98,  
42695),

Gene: Severus\_63 Start: 40585, Stop: 40391, Start Num: 73  
Candidate Starts for Severus\_63:  
(Start: 68 @40591 has 8 MA's), (Start: 73 @40585 has 440 MA's), (Start: 78 @40564 has 16 MA's),  
(95, 40474), (102, 40417),

Gene: Shadow1\_89 Start: 54315, Stop: 54524, Start Num: 73  
Candidate Starts for Shadow1\_89:  
(9, 54117), (29, 54240), (Start: 73 @54315 has 440 MA's), (75, 54324), (Start: 78 @54336 has 16  
MA's), (95, 54429), (99, 54456), (102, 54486),

Gene: Shaka\_64 Start: 42160, Stop: 41966, Start Num: 73  
Candidate Starts for Shaka\_64:  
(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's),  
(Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: ShedlockHolmes\_87 Start: 54566, Stop: 54754, Start Num: 78  
Candidate Starts for ShedlockHolmes\_87:  
(Start: 73 @54545 has 440 MA's), (Start: 78 @54566 has 16 MA's), (79, 54572), (91, 54644), (98,  
54674), (102, 54716),

Gene: Sheen\_70 Start: 46024, Stop: 45851, Start Num: 78  
Candidate Starts for Sheen\_70:  
(Start: 78 @46024 has 16 MA's), (98, 45919), (102, 45877),

Gene: SheldonCooper\_66 Start: 42576, Stop: 42382, Start Num: 73  
Candidate Starts for SheldonCooper\_66:  
(Start: 68 @42582 has 8 MA's), (Start: 73 @42576 has 440 MA's), (Start: 76 @42561 has 6 MA's),  
(Start: 78 @42555 has 16 MA's), (102, 42408),

Gene: ShiaSurprise\_84 Start: 53683, Stop: 53880, Start Num: 73  
Candidate Starts for ShiaSurprise\_84:  
(Start: 65 @53674 has 1 MA's), (Start: 73 @53683 has 440 MA's), (Start: 78 @53704 has 16 MA's),  
(79, 53710), (98, 53812), (102, 53854),

Gene: Shygu2\_65 Start: 42463, Stop: 42269, Start Num: 73  
Candidate Starts for Shygu2\_65:  
(Start: 68 @42469 has 8 MA's), (Start: 73 @42463 has 440 MA's), (Start: 76 @42448 has 6 MA's),  
(Start: 78 @42442 has 16 MA's), (99, 42325), (102, 42295),

Gene: SirJeffery\_77 Start: 62488, Stop: 62276, Start Num: 73  
Candidate Starts for SirJeffery\_77:  
(50, 62533), (61, 62503), (70, 62491), (Start: 73 @62488 has 440 MA's), (Start: 78 @62467 has 16  
MA's), (81, 62437), (84, 62425), (94, 62362), (95, 62359), (100, 62308), (102, 62302),

Gene: SirPhilip\_84 Start: 53843, Stop: 54031, Start Num: 78  
Candidate Starts for SirPhilip\_84:  
(45, 53777), (48, 53783), (Start: 73 @53822 has 440 MA's), (Start: 78 @53843 has 16 MA's), (79,  
53849), (95, 53936), (99, 53963), (102, 53993),

Gene: Skipitt\_65 Start: 42157, Stop: 41963, Start Num: 73  
Candidate Starts for Skipitt\_65:  
(Start: 68 @42163 has 8 MA's), (Start: 73 @42157 has 440 MA's), (Start: 76 @42142 has 6 MA's),  
(Start: 78 @42136 has 16 MA's), (102, 41989),

Gene: Slimphazie\_85 Start: 53928, Stop: 54125, Start Num: 73  
Candidate Starts for Slimphazie\_85:  
(51, 53883), (52, 53886), (Start: 73 @53928 has 440 MA's), (Start: 78 @53949 has 16 MA's), (79,  
53955), (98, 54057), (102, 54099),

Gene: Smeagan\_74 Start: 43771, Stop: 43577, Start Num: 73  
Candidate Starts for Smeagan\_74:  
(Start: 73 @43771 has 440 MA's), (Start: 78 @43750 has 16 MA's), (102, 43603),

Gene: SmellyB\_73 Start: 41662, Stop: 41474, Start Num: 76  
Candidate Starts for SmellyB\_73:  
(Start: 73 @41677 has 440 MA's), (Start: 76 @41662 has 6 MA's), (Start: 78 @41656 has 16 MA's),  
(102, 41509),

Gene: SnapTap\_71 Start: 43271, Stop: 43077, Start Num: 73  
Candidate Starts for SnapTap\_71:  
(Start: 73 @43271 has 440 MA's), (Start: 78 @43250 has 16 MA's),



Gene: Snickers\_69 Start: 42605, Stop: 42411, Start Num: 73

Candidate Starts for Snickers\_69:

(6, 42896), (8, 42863), (20, 42755), (59, 42626), (Start: 68 @42611 has 8 MA's), (Start: 73 @42605 has 440 MA's), (Start: 78 @42584 has 16 MA's), (83, 42548), (98, 42479), (102, 42437),

Gene: SoYo\_70 Start: 42544, Stop: 42350, Start Num: 73

Candidate Starts for SoYo\_70:

(6, 42835), (8, 42802), (20, 42694), (59, 42565), (Start: 68 @42550 has 8 MA's), (Start: 73 @42544 has 440 MA's), (Start: 78 @42523 has 16 MA's), (83, 42487), (98, 42418), (102, 42376),

Gene: SoilDragon\_72 Start: 42080, Stop: 41886, Start Num: 73

Candidate Starts for SoilDragon\_72:

(6, 42371), (8, 42338), (20, 42230), (59, 42101), (Start: 68 @42086 has 8 MA's), (Start: 73 @42080 has 440 MA's), (Start: 78 @42059 has 16 MA's), (83, 42023), (98, 41954), (102, 41912),

Gene: Soshari\_75 Start: 42656, Stop: 42462, Start Num: 73

Candidate Starts for Soshari\_75:

(6, 42947), (8, 42914), (20, 42806), (59, 42677), (Start: 68 @42662 has 8 MA's), (Start: 73 @42656 has 440 MA's), (Start: 78 @42635 has 16 MA's), (83, 42599), (98, 42530), (102, 42488),

Gene: Sparxx\_67 Start: 42158, Stop: 41964, Start Num: 73

Candidate Starts for Sparxx\_67:

(Start: 68 @42164 has 8 MA's), (Start: 73 @42158 has 440 MA's), (Start: 76 @42143 has 6 MA's), (Start: 78 @42137 has 16 MA's), (102, 41990),

Gene: Spike509\_73 Start: 42657, Stop: 42463, Start Num: 73

Candidate Starts for Spike509\_73:

(6, 42948), (8, 42915), (20, 42807), (59, 42678), (Start: 68 @42663 has 8 MA's), (Start: 73 @42657 has 440 MA's), (Start: 78 @42636 has 16 MA's), (83, 42600), (98, 42531), (102, 42489),

Gene: Spino\_65 Start: 42166, Stop: 41972, Start Num: 73

Candidate Starts for Spino\_65:

(Start: 68 @42172 has 8 MA's), (Start: 73 @42166 has 440 MA's), (Start: 76 @42151 has 6 MA's), (Start: 78 @42145 has 16 MA's), (102, 41998),

Gene: Spock\_83 Start: 53487, Stop: 53684, Start Num: 73

Candidate Starts for Spock\_83:

(Start: 65 @53478 has 1 MA's), (Start: 73 @53487 has 440 MA's), (Start: 78 @53508 has 16 MA's), (79, 53514), (98, 53616), (102, 53658),

Gene: Stagni\_70 Start: 42635, Stop: 42441, Start Num: 73

Candidate Starts for Stagni\_70:

(6, 42926), (8, 42893), (20, 42785), (59, 42656), (Start: 68 @42641 has 8 MA's), (Start: 73 @42635 has 440 MA's), (Start: 78 @42614 has 16 MA's), (83, 42578), (98, 42509), (102, 42467),

Gene: Stasia\_65 Start: 42352, Stop: 42152, Start Num: 68

Candidate Starts for Stasia\_65:

(Start: 68 @42352 has 8 MA's), (Start: 73 @42346 has 440 MA's), (Start: 76 @42331 has 6 MA's), (Start: 78 @42325 has 16 MA's), (102, 42178),

Gene: StepMih\_72 Start: 42626, Stop: 42432, Start Num: 73

Candidate Starts for StepMih\_72:

(6, 42917), (8, 42884), (20, 42776), (59, 42647), (Start: 68 @42632 has 8 MA's), (Start: 73 @42626 has 440 MA's), (Start: 78 @42605 has 16 MA's), (83, 42569), (98, 42500), (102, 42458),

Gene: Stinger\_77 Start: 62426, Stop: 62214, Start Num: 73

Candidate Starts for Stinger\_77:

(54, 62462), (71, 62432), (Start: 73 @62426 has 440 MA's), (Start: 78 @62405 has 16 MA's), (79, 62399), (89, 62324), (102, 62240),

Gene: Stink\_65 Start: 42238, Stop: 42044, Start Num: 73

Candidate Starts for Stink\_65:

(Start: 68 @42244 has 8 MA's), (Start: 73 @42238 has 440 MA's), (Start: 76 @42223 has 6 MA's), (Start: 78 @42217 has 16 MA's), (102, 42070),

Gene: Stinson\_84 Start: 53684, Stop: 53860, Start Num: 78

Candidate Starts for Stinson\_84:

(Start: 73 @53663 has 440 MA's), (Start: 74 @53666 has 1 MA's), (75, 53672), (Start: 78 @53684 has 16 MA's), (79, 53690), (98, 53792), (102, 53834),

Gene: Strobilo\_86 Start: 54871, Stop: 55092, Start Num: 63

Candidate Starts for Strobilo\_86:

(13, 54766), (16, 54808), (Start: 63 @54871 has 5 MA's), (75, 54880), (Start: 78 @54892 has 16 MA's), (79, 54898), (102, 55042),

Gene: Suigeneris\_80 Start: 62926, Stop: 62714, Start Num: 73

Candidate Starts for Suigeneris\_80:

(50, 62971), (61, 62941), (70, 62929), (Start: 73 @62926 has 440 MA's), (Start: 78 @62905 has 16 MA's), (81, 62875), (84, 62863), (94, 62800), (95, 62797), (100, 62746), (102, 62740),

Gene: Sulley\_80 Start: 53037, Stop: 53234, Start Num: 73

Candidate Starts for Sulley\_80:

(28, 52926), (31, 52941), (35, 52950), (38, 52956), (Start: 65 @53028 has 1 MA's), (Start: 73 @53037 has 440 MA's), (Start: 78 @53058 has 16 MA's), (79, 53064), (91, 53136), (98, 53166), (102, 53208),

Gene: Sunflower1121\_88 Start: 53859, Stop: 54068, Start Num: 73

Candidate Starts for Sunflower1121\_88:

(9, 53661), (29, 53784), (Start: 73 @53859 has 440 MA's), (75, 53868), (Start: 78 @53880 has 16 MA's), (95, 53973), (102, 54030),

Gene: SuperAwesome\_73 Start: 42355, Stop: 42161, Start Num: 73

Candidate Starts for SuperAwesome\_73:

(Start: 73 @42355 has 440 MA's), (Start: 76 @42340 has 6 MA's), (Start: 78 @42334 has 16 MA's), (95, 42244), (102, 42187), (103, 42166),

Gene: SuperCallie99\_70 Start: 42182, Stop: 42003, Start Num: 76

Candidate Starts for SuperCallie99\_70:

(Start: 73 @42197 has 440 MA's), (Start: 76 @42182 has 6 MA's), (Start: 78 @42176 has 16 MA's), (95, 42086), (102, 42029), (103, 42008),

Gene: Superchunk\_73 Start: 41932, Stop: 41711, Start Num: 73

Candidate Starts for Superchunk\_73:

(Start: 73 @41932 has 440 MA's), (Start: 78 @41911 has 16 MA's), (79, 41905), (102, 41764),

Gene: SweetiePie\_71 Start: 43403, Stop: 43209, Start Num: 73

Candidate Starts for SweetiePie\_71:

(Start: 73 @43403 has 440 MA's), (Start: 78 @43382 has 16 MA's),

Gene: SwirlSquare\_78 Start: 42654, Stop: 42460, Start Num: 73

Candidate Starts for SwirlSquare\_78:

(Start: 73 @42654 has 440 MA's), (Start: 78 @42633 has 16 MA's), (83, 42597), (98, 42528),

Gene: Syra333\_88 Start: 54228, Stop: 54437, Start Num: 73

Candidate Starts for Syra333\_88:

(9, 54030), (29, 54153), (Start: 73 @54228 has 440 MA's), (Start: 78 @54249 has 16 MA's), (95, 54342), (99, 54369), (102, 54399),

Gene: TBond007\_81 Start: 54141, Stop: 54329, Start Num: 78

Candidate Starts for TBond007\_81:

(Start: 73 @54120 has 440 MA's), (Start: 78 @54141 has 16 MA's), (79, 54147), (98, 54249), (102, 54291),

Gene: TClif\_84 Start: 53186, Stop: 53374, Start Num: 78

Candidate Starts for TClif\_84:

(47, 53120), (56, 53141), (Start: 67 @53156 has 7 MA's), (69, 53159), (Start: 73 @53165 has 440 MA's), (Start: 78 @53186 has 16 MA's), (79, 53192), (95, 53279), (98, 53294), (102, 53336),

Gene: TM4\_84 Start: 49737, Stop: 49934, Start Num: 73

Candidate Starts for TM4\_84:

(4, 49431), (7, 49464), (13, 49530), (16, 49572), (57, 49710), (Start: 73 @49737 has 440 MA's), (75, 49746), (Start: 78 @49758 has 16 MA's), (79, 49764), (102, 49908),

Gene: TNguyen7\_69 Start: 42355, Stop: 42161, Start Num: 73

Candidate Starts for TNguyen7\_69:

(Start: 68 @42361 has 8 MA's), (Start: 73 @42355 has 440 MA's), (Start: 78 @42334 has 16 MA's), (93, 42250), (98, 42229), (102, 42187),

Gene: Tachez\_83 Start: 53331, Stop: 53528, Start Num: 73

Candidate Starts for Tachez\_83:

(Start: 65 @53322 has 1 MA's), (Start: 73 @53331 has 440 MA's), (Start: 78 @53352 has 16 MA's), (79, 53358), (98, 53460), (102, 53502),

Gene: TaiwanKao\_84 Start: 53538, Stop: 53714, Start Num: 78

Candidate Starts for TaiwanKao\_84:

(Start: 73 @53517 has 440 MA's), (75, 53526), (Start: 78 @53538 has 16 MA's), (79, 53544), (98, 53646), (102, 53688),

Gene: Taquarus\_65 Start: 42166, Stop: 41972, Start Num: 73

Candidate Starts for Taquarus\_65:

(Start: 68 @42172 has 8 MA's), (Start: 73 @42166 has 440 MA's), (Start: 76 @42151 has 6 MA's), (Start: 78 @42145 has 16 MA's), (102, 41998),

Gene: TarsusIV\_69 Start: 43247, Stop: 43053, Start Num: 73

Candidate Starts for TarsusIV\_69:

(Start: 73 @43247 has 440 MA's), (Start: 76 @43232 has 6 MA's), (Start: 78 @43226 has 16 MA's), (102, 43079), (103, 43058),

Gene: Taurus\_74 Start: 42632, Stop: 42438, Start Num: 73

Candidate Starts for Taurus\_74:

(6, 42923), (8, 42890), (20, 42782), (59, 42653), (Start: 68 @42638 has 8 MA's), (Start: 73 @42632 has 440 MA's), (Start: 78 @42611 has 16 MA's), (83, 42575), (98, 42506), (102, 42464),

Gene: Texage\_66 Start: 42352, Stop: 42158, Start Num: 73

Candidate Starts for Texage\_66:

(20, 42502), (Start: 73 @42352 has 440 MA's), (Start: 78 @42331 has 16 MA's), (93, 42247), (95, 42241), (102, 42184),

Gene: Thanksgivukkah\_65 Start: 42161, Stop: 41967, Start Num: 73

Candidate Starts for Thanksgivukkah\_65:

(Start: 68 @42167 has 8 MA's), (Start: 73 @42161 has 440 MA's), (Start: 76 @42146 has 6 MA's), (Start: 78 @42140 has 16 MA's), (102, 41993),

Gene: Thyatira\_77 Start: 53582, Stop: 53791, Start Num: 73

Candidate Starts for Thyatira\_77:

(Start: 73 @53582 has 440 MA's), (Start: 78 @53603 has 16 MA's), (79, 53609), (102, 53753),

Gene: Tierra\_89 Start: 54747, Stop: 54956, Start Num: 73

Candidate Starts for Tierra\_89:

(21, 54609), (33, 54666), (37, 54675), (Start: 73 @54747 has 440 MA's), (Start: 78 @54768 has 16 MA's), (79, 54774), (95, 54861), (98, 54876), (102, 54918),

Gene: Tiffany\_72 Start: 42523, Stop: 42323, Start Num: 68

Candidate Starts for Tiffany\_72:

(6, 42808), (8, 42775), (20, 42667), (59, 42538), (Start: 68 @42523 has 8 MA's), (Start: 73 @42517 has 440 MA's), (Start: 78 @42496 has 16 MA's), (83, 42460), (98, 42391), (102, 42349),

Gene: TinaFeyge\_64 Start: 42158, Stop: 41964, Start Num: 73

Candidate Starts for TinaFeyge\_64:

(Start: 68 @42164 has 8 MA's), (Start: 73 @42158 has 440 MA's), (Start: 76 @42143 has 6 MA's), (Start: 78 @42137 has 16 MA's), (102, 41990),

Gene: Tinybot\_65 Start: 42193, Stop: 41999, Start Num: 73

Candidate Starts for Tinybot\_65:

(Start: 68 @42199 has 8 MA's), (Start: 73 @42193 has 440 MA's), (Start: 76 @42178 has 6 MA's), (Start: 78 @42172 has 16 MA's), (102, 42025),

Gene: TipsytheTRex\_71 Start: 42823, Stop: 42629, Start Num: 73

Candidate Starts for TipsytheTRex\_71:

(20, 42976), (59, 42847), (Start: 73 @42823 has 440 MA's), (Start: 78 @42802 has 16 MA's), (98, 42697),

Gene: Tiri\_83 Start: 53141, Stop: 53338, Start Num: 73

Candidate Starts for Tiri\_83:

(Start: 65 @53129 has 1 MA's), (Start: 72 @53138 has 4 MA's), (Start: 73 @53141 has 440 MA's), (Start: 78 @53162 has 16 MA's), (79, 53168), (98, 53270), (102, 53312),

Gene: TiroTheta9\_65 Start: 42157, Stop: 41963, Start Num: 73

Candidate Starts for TiroTheta9\_65:

(Start: 68 @42163 has 8 MA's), (Start: 73 @42157 has 440 MA's), (Start: 76 @42142 has 6 MA's), (Start: 78 @42136 has 16 MA's), (102, 41989),

Gene: Todacoro\_68 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for Todacoro\_68:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: Topanga\_62 Start: 41381, Stop: 41187, Start Num: 73

Candidate Starts for Topanga\_62:

(20, 41531), (Start: 68 @41387 has 8 MA's), (Start: 73 @41381 has 440 MA's), (Start: 78 @41360 has 16 MA's), (102, 41213),

Gene: Topper\_83 Start: 53486, Stop: 53683, Start Num: 73

Candidate Starts for Topper\_83:

(Start: 65 @53477 has 1 MA's), (Start: 73 @53486 has 440 MA's), (Start: 78 @53507 has 16 MA's), (79, 53513), (98, 53615), (102, 53657),

Gene: TreyKay\_85 Start: 53829, Stop: 54005, Start Num: 78

Candidate Starts for TreyKay\_85:

(43, 53742), (Start: 73 @53808 has 440 MA's), (Start: 78 @53829 has 16 MA's), (79, 53835), (98, 53937), (102, 53979),

Gene: TribbleTrouble\_85 Start: 54740, Stop: 54949, Start Num: 73

Candidate Starts for TribbleTrouble\_85:

(5, 54458), (15, 54572), (28, 54638), (31, 54653), (38, 54668), (59, 54728), (Start: 67 @54737 has 7 MA's), (Start: 73 @54740 has 440 MA's), (Start: 78 @54761 has 16 MA's), (91, 54839), (98, 54869), (101, 54908), (102, 54911),

Gene: Trike\_62 Start: 40592, Stop: 40398, Start Num: 73

Candidate Starts for Trike\_62:

(Start: 68 @40598 has 8 MA's), (Start: 73 @40592 has 440 MA's), (Start: 76 @40577 has 6 MA's), (Start: 78 @40571 has 16 MA's), (95, 40481), (102, 40424),

Gene: Trixie\_71 Start: 44038, Stop: 43844, Start Num: 73

Candidate Starts for Trixie\_71:

(14, 44212), (26, 44143), (32, 44116), (Start: 73 @44038 has 440 MA's), (Start: 76 @44023 has 6 MA's), (Start: 78 @44017 has 16 MA's), (102, 43870),

Gene: Trooper\_71 Start: 43206, Stop: 43012, Start Num: 73

Candidate Starts for Trooper\_71:

(Start: 73 @43206 has 440 MA's), (Start: 76 @43191 has 6 MA's), (Start: 78 @43185 has 16 MA's), (102, 43038),

Gene: TroyPia\_67 Start: 42170, Stop: 41976, Start Num: 73

Candidate Starts for TroyPia\_67:

(Start: 68 @42176 has 8 MA's), (Start: 73 @42170 has 440 MA's), (Start: 76 @42155 has 6 MA's), (Start: 78 @42149 has 16 MA's), (102, 42002),

Gene: TruffulaTree\_85 Start: 53894, Stop: 54091, Start Num: 73

Candidate Starts for TruffulaTree\_85:

(Start: 65 @53885 has 1 MA's), (Start: 73 @53894 has 440 MA's), (Start: 78 @53915 has 16 MA's), (79, 53921), (98, 54023), (102, 54065),

Gene: Turbido\_72 Start: 43490, Stop: 43296, Start Num: 73

Candidate Starts for Turbido\_72:

(Start: 73 @43490 has 440 MA's), (Start: 78 @43469 has 16 MA's), (102, 43322),

Gene: Twister\_64 Start: 41508, Stop: 41308, Start Num: 68

Candidate Starts for Twister\_64:

(20, 41652), (Start: 68 @41508 has 8 MA's), (Start: 73 @41502 has 440 MA's), (Start: 78 @41481 has 16 MA's), (83, 41445), (93, 41397), (98, 41376), (102, 41334),

Gene: Twitch\_83 Start: 53488, Stop: 53685, Start Num: 73

Candidate Starts for Twitch\_83:

(Start: 65 @53479 has 1 MA's), (Start: 73 @53488 has 440 MA's), (Start: 78 @53509 has 16 MA's), (79, 53515), (98, 53617), (102, 53659),

Gene: TygerBlood\_66 Start: 42163, Stop: 41969, Start Num: 73

Candidate Starts for TygerBlood\_66:

(Start: 68 @42169 has 8 MA's), (Start: 73 @42163 has 440 MA's), (Start: 76 @42148 has 6 MA's), (Start: 78 @42142 has 16 MA's), (102, 41995),

Gene: Ulysses\_65 Start: 41849, Stop: 41655, Start Num: 73

Candidate Starts for Ulysses\_65:

(Start: 68 @41855 has 8 MA's), (Start: 73 @41849 has 440 MA's), (Start: 76 @41834 has 6 MA's), (Start: 78 @41828 has 16 MA's), (102, 41681),

Gene: Unicorn\_89 Start: 54470, Stop: 54679, Start Num: 73

Candidate Starts for Unicorn\_89:

(17, 54320), (19, 54326), (33, 54389), (37, 54398), (Start: 73 @54470 has 440 MA's), (Start: 78 @54491 has 16 MA's), (79, 54497), (95, 54584), (98, 54599), (102, 54641),

Gene: Updawg\_72 Start: 43138, Stop: 42944, Start Num: 73

Candidate Starts for Updawg\_72:

(Start: 73 @43138 has 440 MA's), (Start: 76 @43123 has 6 MA's), (Start: 78 @43117 has 16 MA's), (102, 42970),

Gene: Urkel\_83 Start: 53754, Stop: 53951, Start Num: 73

Candidate Starts for Urkel\_83:

(43, 53688), (Start: 73 @53754 has 440 MA's), (Start: 78 @53775 has 16 MA's), (79, 53781), (91, 53853), (98, 53883), (102, 53925),

Gene: VA6\_71 Start: 43189, Stop: 42995, Start Num: 73

Candidate Starts for VA6\_71:

(32, 43273), (Start: 73 @43189 has 440 MA's), (Start: 76 @43174 has 6 MA's), (Start: 78 @43168 has 16 MA's), (102, 43021),

Gene: Validus\_89 Start: 55221, Stop: 55430, Start Num: 73

Candidate Starts for Validus\_89:

(15, 55056), (31, 55137), (38, 55152), (41, 55164), (59, 55209), (Start: 73 @55221 has 440 MA's), (Start: 78 @55242 has 16 MA's), (79, 55248), (81, 55272), (95, 55335), (98, 55350), (102, 55392),

Gene: Veliki\_84 Start: 53463, Stop: 53660, Start Num: 73

Candidate Starts for Veliki\_84:

(51, 53418), (52, 53421), (Start: 73 @53463 has 440 MA's), (Start: 78 @53484 has 16 MA's), (79, 53490), (98, 53592), (102, 53634),

Gene: Veracruz\_65 Start: 42351, Stop: 42157, Start Num: 73

Candidate Starts for Veracruz\_65:

(20, 42501), (Start: 73 @42351 has 440 MA's), (Start: 78 @42330 has 16 MA's), (93, 42246), (95, 42240), (102, 42183),

Gene: Vincenzo\_80 Start: 64923, Stop: 64714, Start Num: 73

Candidate Starts for Vincenzo\_80:

(Start: 73 @64923 has 440 MA's), (Start: 78 @64902 has 16 MA's), (79, 64896), (92, 64818),

Gene: Vix\_69 Start: 42715, Stop: 42521, Start Num: 73

Candidate Starts for Vix\_69:

(6, 43006), (8, 42973), (20, 42865), (59, 42736), (Start: 68 @42721 has 8 MA's), (Start: 73 @42715 has 440 MA's), (Start: 78 @42694 has 16 MA's), (83, 42658), (98, 42589), (102, 42547),

Gene: VohminGhazi\_73 Start: 41678, Stop: 41475, Start Num: 73

Candidate Starts for VohminGhazi\_73:

(Start: 73 @41678 has 440 MA's), (Start: 76 @41663 has 6 MA's), (Start: 78 @41657 has 16 MA's), (102, 41510),

Gene: WalterMcMickey\_64 Start: 41502, Stop: 41308, Start Num: 73

Candidate Starts for WalterMcMickey\_64:

(20, 41652), (Start: 68 @41508 has 8 MA's), (Start: 73 @41502 has 440 MA's), (Start: 78 @41481 has 16 MA's), (83, 41445), (93, 41397), (98, 41376), (102, 41334),

Gene: Wander\_66 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for Wander\_66:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: Waterfoul\_76 Start: 51652, Stop: 51861, Start Num: 73

Candidate Starts for Waterfoul\_76:

(Start: 73 @51652 has 440 MA's), (Start: 78 @51673 has 16 MA's), (79, 51679), (102, 51823),

Gene: Watson\_72 Start: 42624, Stop: 42430, Start Num: 73

Candidate Starts for Watson\_72:

(6, 42915), (8, 42882), (20, 42774), (59, 42645), (Start: 68 @42630 has 8 MA's), (Start: 73 @42624 has 440 MA's), (Start: 78 @42603 has 16 MA's), (83, 42567), (98, 42498), (102, 42456),

Gene: WeiHuaDA\_72 Start: 44078, Stop: 43884, Start Num: 73

Candidate Starts for WeiHuaDA\_72:

(20, 44216), (Start: 73 @44078 has 440 MA's), (Start: 76 @44063 has 6 MA's), (Start: 78 @44057 has 16 MA's), (102, 43910),

Gene: Whabigail7\_72 Start: 43490, Stop: 43296, Start Num: 73

Candidate Starts for Whabigail7\_72:

(Start: 73 @43490 has 440 MA's), (Start: 78 @43469 has 16 MA's), (102, 43322),

Gene: WideWale\_72 Start: 43138, Stop: 42944, Start Num: 73

Candidate Starts for WideWale\_72:

(Start: 73 @43138 has 440 MA's), (Start: 76 @43123 has 6 MA's), (Start: 78 @43117 has 16 MA's), (102, 42970),

Gene: Wilbur\_66 Start: 42160, Stop: 41966, Start Num: 73

Candidate Starts for Wilbur\_66:

(Start: 68 @42166 has 8 MA's), (Start: 73 @42160 has 440 MA's), (Start: 76 @42145 has 6 MA's), (Start: 78 @42139 has 16 MA's), (102, 41992),

Gene: Wile\_64 Start: 42442, Stop: 42248, Start Num: 73

Candidate Starts for Wile\_64:

(Start: 68 @42448 has 8 MA's), (Start: 73 @42442 has 440 MA's), (Start: 76 @42427 has 6 MA's), (Start: 78 @42421 has 16 MA's), (99, 42304), (102, 42274),

Gene: Wizard007\_65 Start: 42168, Stop: 41974, Start Num: 73

Candidate Starts for Wizard007\_65:

(Start: 68 @42174 has 8 MA's), (Start: 73 @42168 has 440 MA's), (Start: 76 @42153 has 6 MA's), (Start: 78 @42147 has 16 MA's), (102, 42000),

Gene: Wooldri\_75 Start: 42544, Stop: 42350, Start Num: 73

Candidate Starts for Wooldri\_75:

(6, 42835), (8, 42802), (20, 42694), (59, 42565), (Start: 68 @42550 has 8 MA's), (Start: 73 @42544 has 440 MA's), (Start: 78 @42523 has 16 MA's), (83, 42487), (98, 42418), (102, 42376),

Gene: Xena\_64 Start: 42409, Stop: 42215, Start Num: 73

Candidate Starts for Xena\_64:

(Start: 68 @42415 has 8 MA's), (Start: 73 @42409 has 440 MA's), (Start: 76 @42394 has 6 MA's), (Start: 78 @42388 has 16 MA's), (102, 42241),

Gene: Ximenita\_90 Start: 54552, Stop: 54761, Start Num: 73

Candidate Starts for Ximenita\_90:

(9, 54354), (29, 54477), (Start: 73 @54552 has 440 MA's), (Start: 78 @54573 has 16 MA's), (95, 54666), (102, 54723),

Gene: Yecey3\_75 Start: 42611, Stop: 42417, Start Num: 73

Candidate Starts for Yecey3\_75:

(Start: 73 @42611 has 440 MA's), (Start: 78 @42590 has 16 MA's), (98, 42485), (102, 42443),

Gene: YoSam321\_66 Start: 42157, Stop: 41963, Start Num: 73

Candidate Starts for YoSam321\_66:

(Start: 68 @42163 has 8 MA's), (Start: 73 @42157 has 440 MA's), (Start: 76 @42142 has 6 MA's), (Start: 78 @42136 has 16 MA's), (102, 41989),

Gene: YoureAdopted\_82 Start: 53283, Stop: 53480, Start Num: 73

Candidate Starts for YoureAdopted\_82:

(Start: 73 @53283 has 440 MA's), (75, 53292), (Start: 78 @53304 has 16 MA's), (79, 53310), (98, 53412), (102, 53454),

Gene: Yuna\_86 Start: 55367, Stop: 55555, Start Num: 78

Candidate Starts for Yuna\_86:

(49, 55307), (Start: 67 @55337 has 7 MA's), (69, 55340), (Start: 73 @55346 has 440 MA's), (Start: 78 @55367 has 16 MA's), (79, 55373), (95, 55460), (102, 55517),

Gene: Zabiza\_79 Start: 49857, Stop: 50033, Start Num: 78

Candidate Starts for Zabiza\_79:

(Start: 65 @49827 has 1 MA's), (Start: 73 @49836 has 440 MA's), (Start: 78 @49857 has 16 MA's), (79, 49863), (98, 49965), (102, 50007),

Gene: Zavala\_85 Start: 53748, Stop: 53945, Start Num: 73



Candidate Starts for Zavala\_85:

(43, 53682), (Start: 73 @53748 has 440 MA's), (Start: 78 @53769 has 16 MA's), (79, 53775), (98, 53877), (102, 53919),

Gene: Zetzy\_70 Start: 42195, Stop: 42001, Start Num: 73

Candidate Starts for Zetzy\_70:

(6, 42486), (8, 42453), (20, 42345), (59, 42216), (Start: 68 @42201 has 8 MA's), (Start: 73 @42195 has 440 MA's), (Start: 78 @42174 has 16 MA's), (83, 42138), (98, 42069), (102, 42027),

Gene: ZoeJ\_84 Start: 54414, Stop: 54614, Start Num: 72

Candidate Starts for ZoeJ\_84:

(13, 54210), (16, 54252), (57, 54390), (Start: 72 @54414 has 4 MA's), (75, 54423), (Start: 78 @54435 has 16 MA's), (79, 54441), (100, 54579), (102, 54585), (103, 54606),