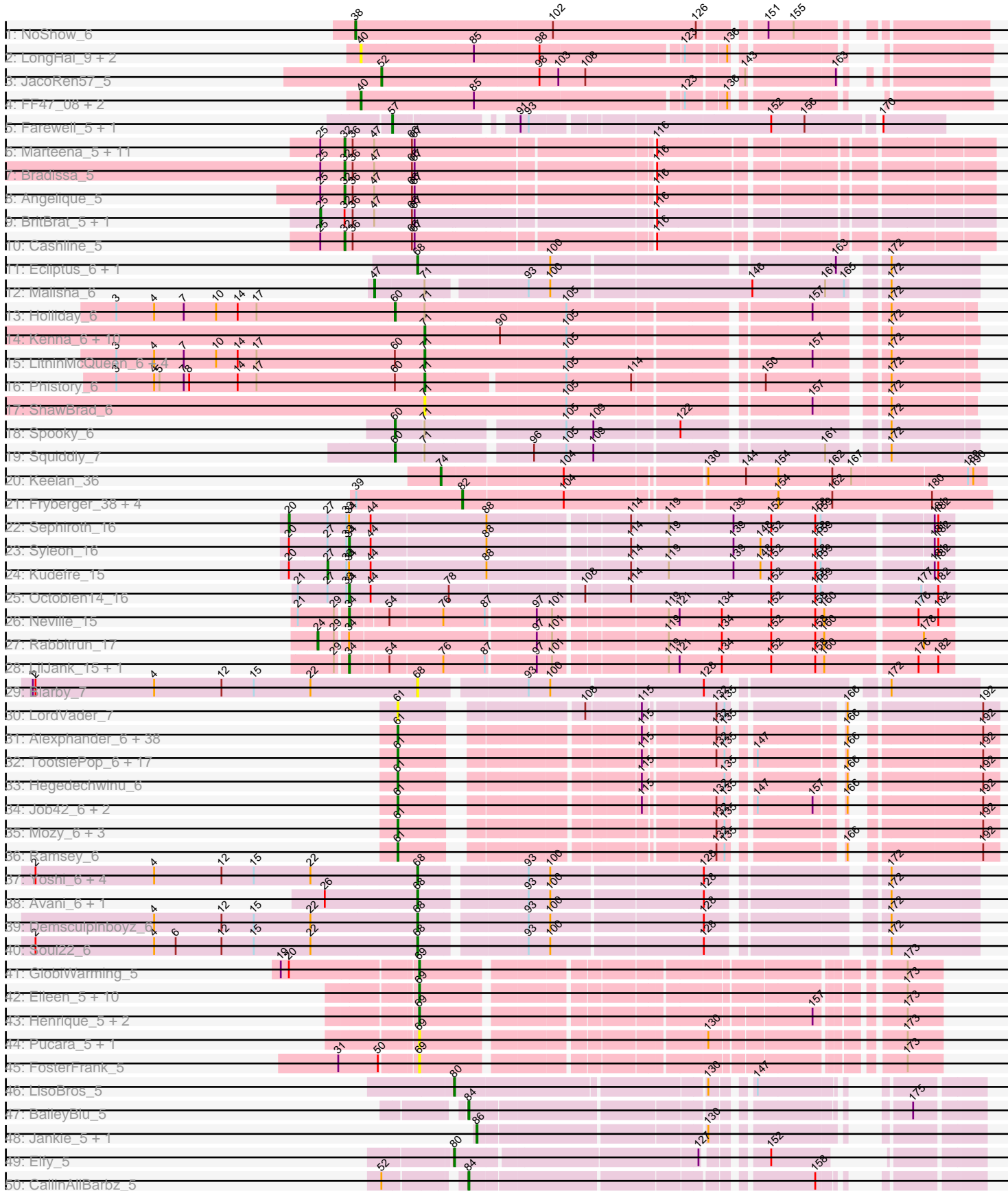
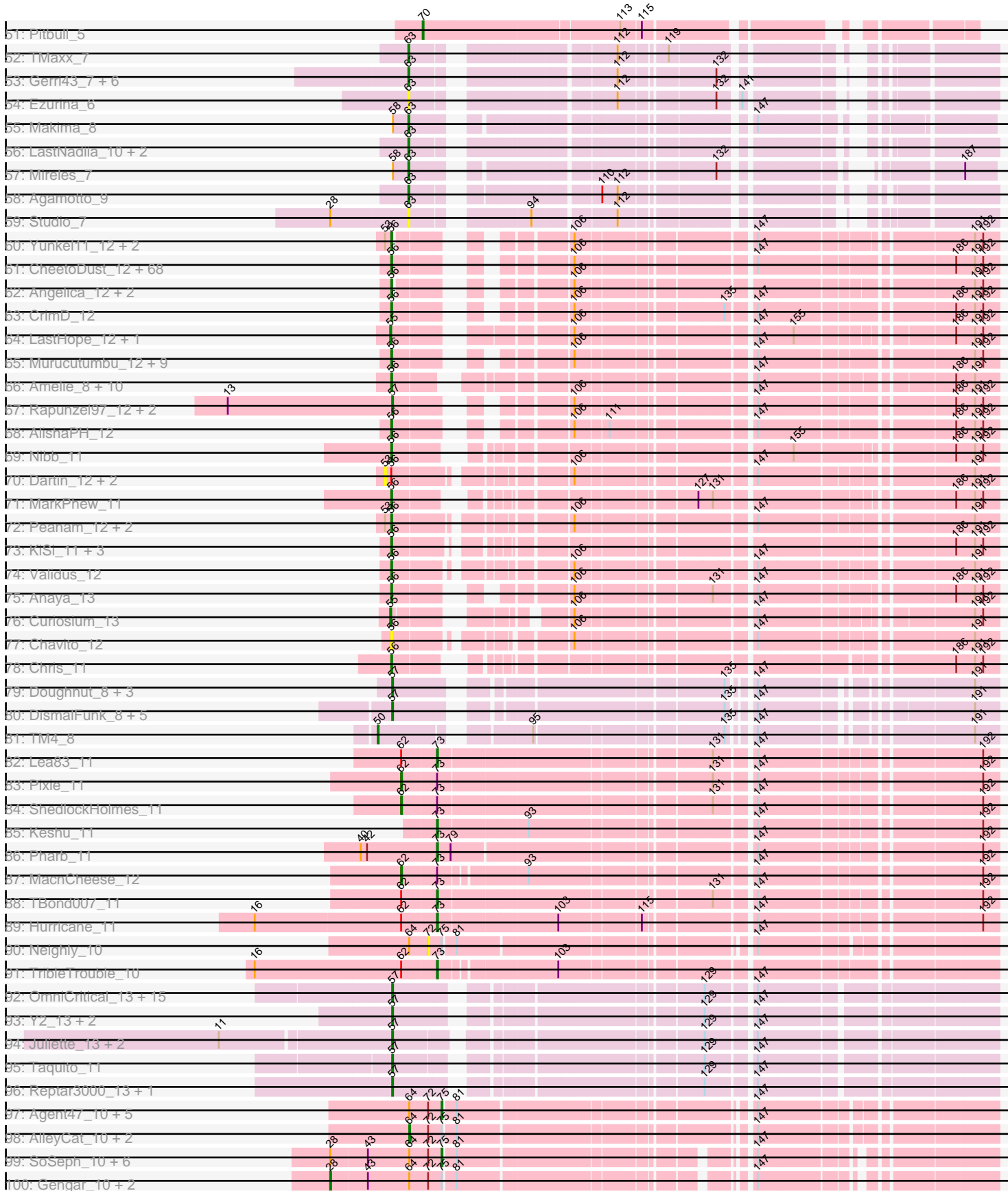


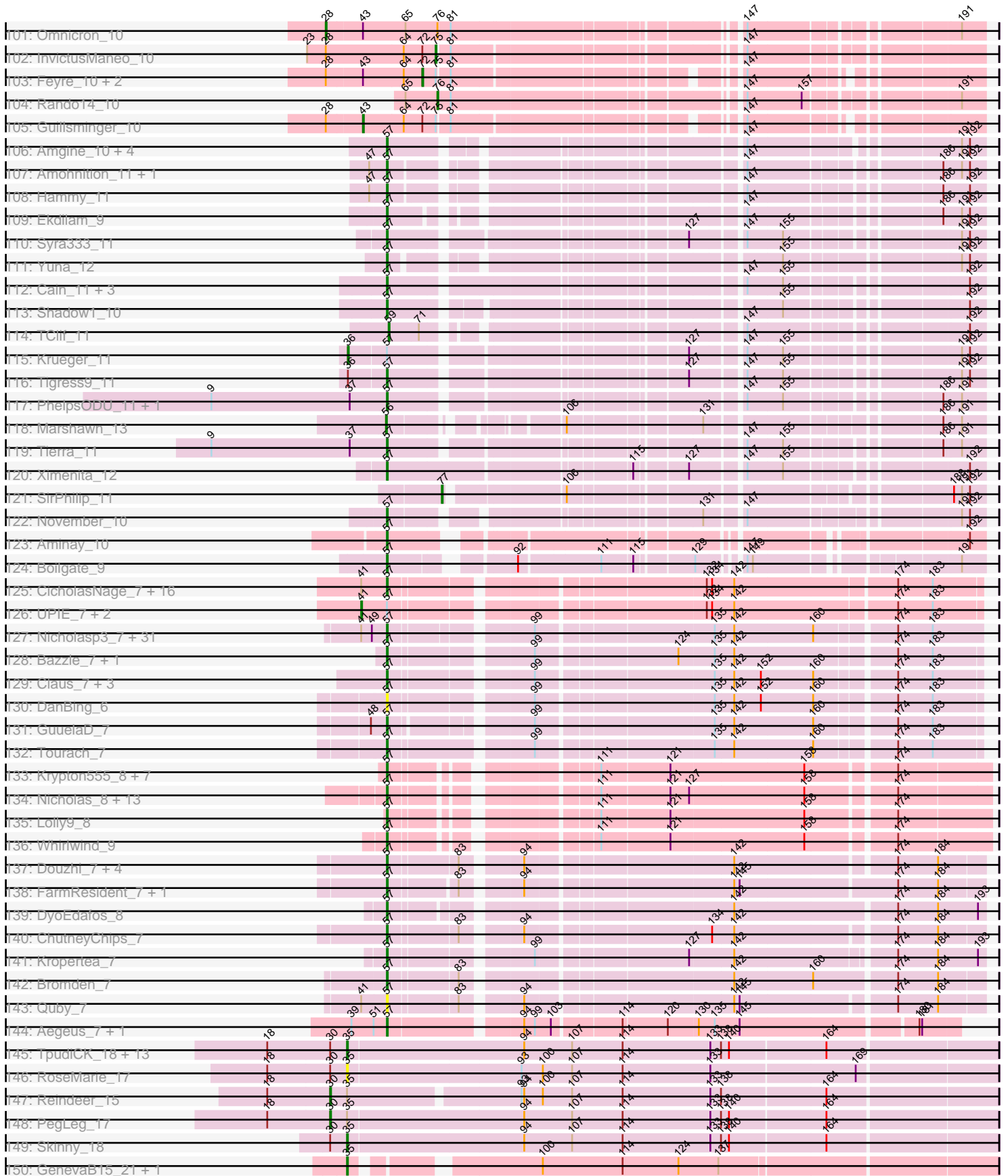
Pham 311048



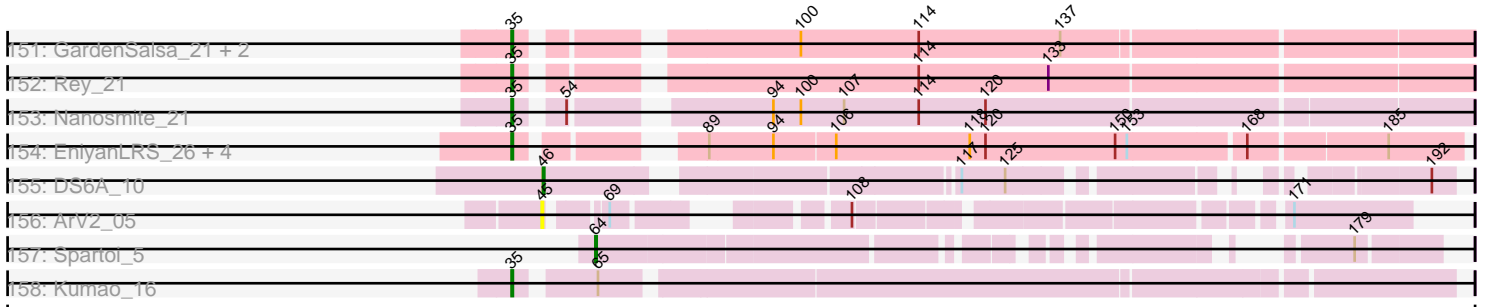
Pham 311048



Pham 311048



Pham 311048



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 311048 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311048 has 536 members, 66 are drafts.

Phages represented in each track:

- Track 1 : NoShow\_6
- Track 2 : LongHai\_9, Salvus\_9, 8UZL\_8
- Track 3 : JacoRen57\_5
- Track 4 : FF47\_08, Muddy\_8, Maco6\_6
- Track 5 : Farewell\_5, Sparky\_5
- Track 6 : Marteena\_5, EnalisNailo\_5, Wrigley\_5, Posh\_5, Jablanski\_5, Pytheas\_5, Floral\_5, EMSquaredA\_5, Confidence\_5, BeeGee\_5, LonelyBoi\_5, Lilas\_5
- Track 7 : Bradissa\_5
- Track 8 : Angelique\_5
- Track 9 : BritBrat\_5, Pollux\_5
- Track 10 : Cashline\_5
- Track 11 : Ecliptus\_6, ODay\_6
- Track 12 : Malisha\_6
- Track 13 : Holliday\_6
- Track 14 : Kenna\_6, Asapag\_6, Getalong\_6, BotCity\_6, Periwinkle\_6, BENTherdunthat\_6, Whitney\_6, Lutum\_6, Leroy\_6, Horus\_6, Frickyeah\_6
- Track 15 : LitninMcQueen\_6, Kamaru\_6, Budski\_6, CheeseTouch\_6, Phabuloso\_6
- Track 16 : Phistory\_6
- Track 17 : ShawBrad\_6
- Track 18 : Spooky\_6
- Track 19 : Squiddly\_7
- Track 20 : Keelan\_36
- Track 21 : Fryberger\_38, Ziko\_41, Volt\_40, Ronaldo\_41, Guey18\_43
- Track 22 : Sephiroth\_16
- Track 23 : Syleon\_16
- Track 24 : Kudefre\_15
- Track 25 : Octobien14\_16
- Track 26 : Neville\_15
- Track 27 : Rabbitrun\_17
- Track 28 : LilJank\_15, Trax\_15
- Track 29 : Blarby\_7
- Track 30 : LordVader\_7
- Track 31 : Alexphander\_6, Leozinho\_6, Plumbus\_6, Bobi\_6, Kingsley\_6, Brookers\_6, MulchExplorer\_6, Cerasum\_6, Tchotchke\_6, Beanstalk\_6, UncleRicky\_6, Kimberlium\_6, Drago\_6, Frankie\_6, SimranZ1\_6, OwlsT2W\_6, Enby\_6, BuzzLyseyear\_6, Squirty\_6, Sarma624\_6, DosHalletts\_6, Brushbloom\_6, Juice456\_6, Boomer\_6, Beakin\_6, Lucia\_6, Oksu\_6, Velveteen\_6, BigPhil\_6,

Lorde\_6, RockyHorror\_6, Seagreen\_6, Doomslug\_6, JalFarm20\_6, Flathead\_6,  
 DirtMcgirt\_6, LittleShirley\_6, Stap\_6, Tootsieroll\_6  
 • Track 32 : TootsiePop\_6, Aloeri\_6, Slim\_6, DocMcStuffins\_6, Peridot\_6, Spikelee\_6,  
 Piper2020\_6, Misha28\_6, Emmaloid\_6, Starcevich\_6, DaWorst\_6,  
 Awesomesauce\_6, Totinger\_6, Coco12\_6, Rialto\_6, ChickenDinner\_6, Pollywog\_6,  
 Mova\_6  
 • Track 33 : Hegedechwinu\_6  
 • Track 34 : Job42\_6, Marker\_6, Madiba\_6  
 • Track 35 : Mozy\_6, Girafales\_6, Cornucopia\_6, Quico\_6  
 • Track 36 : Ramsey\_6  
 • Track 37 : Yoshi\_6, Zapner\_7, Ogopogo\_7, Jabbawokkie\_7, Che9d\_6  
 • Track 38 : Avani\_6, SilverChicken\_6  
 • Track 39 : Demsculpinboyz\_6  
 • Track 40 : Soul22\_6  
 • Track 41 : GlobiWarming\_5  
 • Track 42 : Eileen\_5, Constance\_5, LilyBell\_5, ChuckDuck\_5, Peas\_5, KayMoney\_5,  
 NikkiHotWheels\_5, Judy\_5, PeggyLeg03\_5, NidoQ\_5, LittleRon\_5  
 • Track 43 : Henrique\_5, Karkharias\_5, Bridgette\_5  
 • Track 44 : Pucara\_5, HotPotato\_5  
 • Track 45 : FosterFrank\_5  
 • Track 46 : LisoBros\_5  
 • Track 47 : BaileyBlu\_5  
 • Track 48 : Jankie\_5, GrimEater\_5  
 • Track 49 : Elfy\_5  
 • Track 50 : CallinAllBarbz\_5  
 • Track 51 : Pitbull\_5  
 • Track 52 : TMaxx\_7  
 • Track 53 : Gerri43\_7, ChipsNGuac\_7, CardboardBox\_7, Neuville\_7, Roberts\_7,  
 AnnabelLee\_7, ChamoyPickle\_7  
 • Track 54 : Ezurina\_6  
 • Track 55 : Makima\_8  
 • Track 56 : LastNadiia\_10, TripleC\_10, Audell\_10  
 • Track 57 : Mireles\_7  
 • Track 58 : Agamoto\_9  
 • Track 59 : Studio\_7  
 • Track 60 : Yunke11\_12, Efra2\_12, Guanica15\_12  
 • Track 61 : CheetoDust\_12, SamuelLPlagson\_12, Belladonna\_12, Ganymede\_12,  
 Bella96\_12, Rosmarinus\_12, Peel\_12, CREW\_12, Inky\_12, BaghaKamala\_12,  
 Zavala\_12, Clipper\_12, Capricorn\_12, TreyKay\_12, Atiba\_12, CallaLilly\_12,  
 Lunahalos\_12, Adephagia\_12, Mynx\_12, Beezoo\_12, Durfee\_12, Prithvi\_12,  
 Ramen\_12, Jarvi\_12, BGlluvia\_12, Geraldini\_12, Megsy\_12, Piatt\_12, Boiiii\_12,  
 Hyperbowlee\_12, Zabiza\_12, DartGoblin\_12, YoureAdopted\_11, Spock\_12,  
 Twitch\_12, QuincyRose\_11, Emerson\_12, Llorens\_12, BarrelRoll\_12, CaseJules\_12,  
 Tiri\_12, Anma\_12, Asayake\_12, MacKat\_12, Padfoot\_12, Topper\_12, Jeckyll\_12,  
 ActinUp\_12, Urkel\_12, Joy99\_12, Padpat\_12, JAWS\_12, Tachez\_12, Blizzard\_12,  
 Adonis\_12, BEEST\_12, HedwigODU\_12, Homura\_12, MeaningOfLife\_12,  
 TaiwanKao\_12, ShiaSurprise\_12, TruffulaTree\_12, TiniBug\_12, DrHayes\_12,  
 Dalmuri\_12, LindNT\_12, Pokerus\_11, Apocalypse\_12, Veliki\_12  
 • Track 62 : Angelica\_12, Sulley\_12, Deby\_12  
 • Track 63 : CrimD\_12  
 • Track 64 : LastHope\_12, TingHuaYa\_12  
 • Track 65 : Murucutumbu\_12, Illumine\_12, Pisa4\_11, LaterM\_12, Pisa1\_11,  
 Devera\_12, Stinson\_12, Dole\_12, Bern\_12, Ageofdapage\_12

- Track 66 : Amelie\_8, SgtBeansprout\_8, Teejan\_8, Torres\_8, Nutello\_8, Nikao\_8, Enkosi\_8, Trice\_8, Mdavu\_8, LilPharaoh\_8, Binglebops\_8
- Track 67 : Rapunzel97\_12, Slimphazie\_12, Jayhawk\_12
- Track 68 : AlishaPH\_12
- Track 69 : Nibb\_11
- Track 70 : Dartin\_12, McMater\_12, Richo\_12
- Track 71 : MarkPhew\_11
- Track 72 : Peanam\_12, Shaobing\_12, Niklas\_12
- Track 73 : KiSi\_11, Oscar\_11, LeMond\_11, Scarlett\_11
- Track 74 : Validus\_12
- Track 75 : Anaya\_13
- Track 76 : Curiosium\_13
- Track 77 : Chavito\_12
- Track 78 : Chris\_11
- Track 79 : Doughnut\_8, BoostSeason\_8, ZoeJ\_8, Mufasa\_8
- Track 80 : DismalFunk\_8, Findley\_8, Milly\_8, Strobilo\_8, Marcoliusprime\_8, DismalStressor\_8
- Track 81 : TM4\_8
- Track 82 : Lea83\_11
- Track 83 : Pixie\_11
- Track 84 : ShedlockHolmes\_11
- Track 85 : Keshu\_11
- Track 86 : Pharb\_11
- Track 87 : MacnCheese\_12
- Track 88 : TBond007\_11
- Track 89 : Hurricane\_11
- Track 90 : Neighly\_10
- Track 91 : TribbleTrouble\_10
- Track 92 : OmniCritical\_13, Cheetobro\_13, MissDaisy\_13, Lebo14\_13, Slarp\_13, Fionnbharth\_13, Kraw\_13, DanSyl44\_13, Wintermute\_13, Mitti\_13, Patt\_13, YasnayaPolyana\_13, Chancellor\_13, Malthus\_13, Qhanda\_13, SamScheppers\_11
- Track 93 : Y2\_13, Y10\_13, JF1\_13
- Track 94 : Juliette\_13, Eponine\_13, Ruthiejr\_12
- Track 95 : Taquito\_11
- Track 96 : Reptar3000\_13, Bobquesha\_13
- Track 97 : Agent47\_10, LilDirt\_9, ViviJ\_9, Psycho\_10, Edugator\_9, Dadosky\_10
- Track 98 : AlleyCat\_10, Larva\_10, Kratio\_9
- Track 99 : SoSeph\_10, Miryou\_10, DoubleChamp\_10, Heftyboy\_10, Waterfoul\_10, Thyatira\_10, BananenDer11\_10
- Track 100 : Gengar\_10, Collard\_10, Leston\_10
- Track 101 : Omnicron\_10
- Track 102 : InvictusManeo\_10
- Track 103 : Feyre\_10, OkiRoe\_10, Paola\_10
- Track 104 : Rando14\_10
- Track 105 : Guillsminger\_10
- Track 106 : Amgine\_10, Applecrisp\_10, Fefferhead\_11, Lavahound\_10, Ellie\_9
- Track 107 : Amohnition\_11, DarthP\_11
- Track 108 : Hammy\_11
- Track 109 : Ekdilam\_9
- Track 110 : Syra333\_11
- Track 111 : Yuna\_12
- Track 112 : Cain\_11, Sunflower1121\_10, Phrank\_11, Bryler\_11
- Track 113 : Shadow1\_10

- Track 114 : TClif\_11
- Track 115 : Krueger\_11
- Track 116 : Tigress9\_11
- Track 117 : PhelpsODU\_11, Unicorn\_11
- Track 118 : Marshawn\_13
- Track 119 : Tierra\_11
- Track 120 : Ximenita\_12
- Track 121 : SirPhilip\_11
- Track 122 : November\_10
- Track 123 : Aminay\_10
- Track 124 : Boilgate\_9
- Track 125 : CicholasNage\_7, DirkDirk\_7, OhShagHennessy\_7, Zaria\_7, AvadaKedavra\_7, JoeDirt\_7, Wamburgxpress\_7, Silverleaf\_7, Acquire49\_7, Wyatt2\_7, Appletree2\_7, Rose5\_7, Enceladus\_7, Halena\_7, MAckerman\_7, Poochiewood\_7, Calm\_7
- Track 126 : UPIE\_7, LeBron\_7, Tyson\_7
- Track 127 : Nicholasp3\_7, Underpass\_7, BobsGarage\_7, Lynnae\_7, OverPar\_7, Zakai\_7, Rossetti\_7, Loadrie\_7, Gardann\_7, SoJulia\_7, MkaliMitinis3\_7, BigCheese\_7, Faith1\_7, Finemlucis\_7, Breezona\_7, Miley16\_7, Itos\_7, Netyap\_7, Gabriela\_7, LilDestine\_7, Sarshaun\_7, Lewan\_7, DrSeegs\_7, Rumpelstiltskin\_7, Vetrax\_7, Soap141\_7, Kahlid\_7, Wilder\_7, Winky\_7, Hafay\_7, Crossroads\_7, Wigglewiggles\_7
- Track 128 : Bazzle\_7, Archie\_7
- Track 129 : Claus\_7, Baoshan\_6, DHan\_7, ZhongYanYuan\_6
- Track 130 : DanBing\_6
- Track 131 : GuuelaD\_7
- Track 132 : Tourach\_7
- Track 133 : Krypton555\_8, MiniLon\_8, MiniMac\_8, KirDoubleO7\_6, BourbonZero\_7, Ellson\_8, LiyuLake\_8, DuncansLeg\_8
- Track 134 : Nicholas\_8, Red305\_8, Clautastrophe\_8, Jobypre\_8, Bellis\_8, Moostard\_8, Lumos\_8, Jubie\_8, Samty\_8, Finnry\_8, TriFive\_8, Kingsolomon\_8, Snenia\_8, MsGreen\_8
- Track 135 : Lolly9\_8
- Track 136 : Whirlwind\_9
- Track 137 : Douzhi\_7, PYPDinur\_7, Sheng711\_7, Chaser\_7, BrainDrainer\_8
- Track 138 : FarmResident\_7, Douge\_7
- Track 139 : DyoEdafos\_8
- Track 140 : ChutneyChips\_7
- Track 141 : Kropertea\_7
- Track 142 : Bromden\_7
- Track 143 : Quby\_7
- Track 144 : Aegeus\_7, Baudelaire\_7
- Track 145 : TpudiCK\_18, Diminimus\_18, Izel\_18, Glaske16\_18, Bricole\_17, KleverKiS\_17, LilhomieP\_16, TyDawg\_17, FreakyGoo\_18, Auspice\_17, Bongo\_17, Dulcita\_18, SlimJimmy\_16, IPHane7\_17
- Track 146 : RoseMarie\_17
- Track 147 : Reindeer\_15
- Track 148 : PegLeg\_17
- Track 149 : Skinny\_18
- Track 150 : GenevaB15\_21, Aziz\_21
- Track 151 : GardenSalsa\_21, Estes\_22, MrMagoo\_21
- Track 152 : Rey\_21
- Track 153 : Nanosmite\_21

- Track 154 : EniyanLRS\_26, MaryV\_29, Wildcat\_29, Azrael100\_28, Cosmo\_29
- Track 155 : DS6A\_10
- Track 156 : ArV2\_05
- Track 157 : Spartoi\_5
- Track 158 : Kumao\_16

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

The start number called the most often in the published annotations is 57, it was called in 136 of the 470 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acquire49\_7, Aegeus\_7, Amgine\_10, Aminay\_10, Amohnition\_11, Applecrisp\_10, Appletree2\_7, Archie\_7, AvadaKedavra\_7, Baoshan\_6, Baudelaire\_7, Bazzle\_7, Bellis\_8, BigCheese\_7, Bobquesha\_13, BobsGarage\_7, Boilgate\_9, BoostSeason\_8, BourbonZero\_7, BrainDrainer\_8, Breezona\_7, Bromden\_7, Bryler\_11, Cain\_11, Calm\_7, Chancellor\_13, Chaser\_7, Cheetobro\_13, ChutneyChips\_7, CicholasNage\_7, Claus\_7, Clautastrophe\_8, Crossroads\_7, DHan\_7, DanBing\_6, DanSyl44\_13, DarthP\_11, DirkDirk\_7, DismalFunk\_8, DismalStressor\_8, Douge\_7, Doughnut\_8, Douzhi\_7, DrSeegs\_7, DuncansLeg\_8, DyoEdafos\_8, Ekdilam\_9, Ellie\_9, Ellson\_8, Enceladus\_7, Eponine\_13, Faith1\_7, Farewell\_5, FarmResident\_7, Fefferhead\_11, Findley\_8, Finemlucis\_7, Finnry\_8, Fionnbharth\_13, Gabriela\_7, Gardann\_7, GuuelaD\_7, Hafay\_7, Halena\_7, Hammy\_11, Itos\_7, JF1\_13, Jayhawk\_12, Jobypre\_8, JoeDirt\_7, Jubie\_8, Juliette\_13, Kahlid\_7, Kingsolomon\_8, KirDoubleO7\_6, Kraw\_13, Kropertea\_7, Krypton555\_8, Lavahound\_10, Lebo14\_13, Lewan\_7, LilDestine\_7, LiyuLake\_8, Loadrie\_7, Lolly9\_8, Lumos\_8, Lynnae\_7, MAckerman\_7, Malthus\_13, Marcoliusprime\_8, Miley16\_7, Milly\_8, MiniLon\_8, MiniMac\_8, MissDaisy\_13, Mitti\_13, MkaliMitinis3\_7, Moostard\_8, MsGreen\_8, Mufasa\_8, Netyap\_7, Nicholas\_8, Nicholasp3\_7, November\_10, OhShagHennessy\_7, OmniCritical\_13, OverPar\_7, PYPDinur\_7, Patt\_13, PhelpsODU\_11, Phrank\_11, Poochiewood\_7, Qhanda\_13, Quby\_7, Rapunzel97\_12, Red305\_8, Reptar3000\_13, Rose5\_7, Rossetti\_7, Rumpelstiltskin\_7, Ruthiejr\_12, SamScheppers\_11, Samty\_8, Sarshaun\_7, Shadow1\_10, Sheng711\_7, Silverleaf\_7, Slarp\_13, Slimphazie\_12, Snenia\_8, SoJulia\_7, Soap141\_7, Sparky\_5, Strobilo\_8, Sunflower1121\_10, Syra333\_11, Taquito\_11, Tierra\_11, Tigress9\_11, Tourach\_7, TriFive\_8, Underpass\_7, Unicorn\_11, Vetrrix\_7, Wamburgxpress\_7, Whirlwind\_9, Wigglewiggles\_7, Wilder\_7, Winky\_7, Wintermute\_13, Wyatt2\_7, Ximenita\_12, Y10\_13, Y2\_13, YasnayaPolyana\_13, Yuna\_12, Zakai\_7, Zaria\_7, ZhongYanYuan\_6, ZoeJ\_8,

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

- Krueger\_11, LeBron\_7, Tyson\_7, UPIE\_7,

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

- 8UZL\_8, ActinUp\_12, Adephegia\_12, Adonis\_12, Agamoto\_9, Agent47\_10, Ageofdapage\_12, Alexphander\_6, AlishaPH\_12, AlleyCat\_10, Aloeri\_6, Amelie\_8, Anaya\_13, Angelica\_12, Angelique\_5, Anma\_12, AnnabelLee\_7, Apocalypse\_12, ArV2\_05, Asapag\_6, Asayake\_12, Atiba\_12, Audell\_10, Auspice\_17, Avani\_6, Awesomesauce\_6, Aziz\_21, Azrael100\_28, BEEST\_12, BENtherdunthat\_6, BGlluviae\_12, BaghaKamala\_12, BaileyBlu\_5, BananenDer11\_10, BarrelRoll\_12,

Beakin\_6, Beanstalk\_6, BeeGee\_5, Beezoo\_12, Bella96\_12, Belladonna\_12, Bern\_12, BigPhil\_6, Binglebops\_8, Blarby\_7, Blizzard\_12, Bobi\_6, Boiiii\_12, Bongo\_17, Boomer\_6, BotCity\_6, Bradissa\_5, Bricole\_17, Bridgette\_5, BritBrat\_5, Brookers\_6, Brushbloom\_6, Budski\_6, BuzzLyseyear\_6, CREW\_12, CallaLilly\_12, CallinAllBarbz\_5, Capricorn\_12, CardboardBox\_7, CaseJules\_12, Cashline\_5, Cerasum\_6, ChamoyPickle\_7, Chavito\_12, Che9d\_6, CheeseTouch\_6, CheetoDust\_12, ChickenDinner\_6, ChipsNGuac\_7, Chris\_11, ChuckDuck\_5, Clipper\_12, Coco12\_6, Collard\_10, Confidence\_5, Constance\_5, Cornucopia\_6, Cosmo\_29, CrimD\_12, Curiosium\_13, DS6A\_10, DaWorst\_6, Dadosky\_10, Dalmuri\_12, DartGoblin\_12, Dartin\_12, Deby\_12, Demsculpinboyz\_6, Devera\_12, Diminimus\_18, DirtMcgirt\_6, DocMcStuffins\_6, Dole\_12, Doomslug\_6, DosHalletts\_6, DoubleChamp\_10, DrHayes\_12, Drago\_6, Dulcita\_18, Durfee\_12, EmsquaredA\_5, Ecliptus\_6, Edugator\_9, Efra2\_12, Eileen\_5, Elfy\_5, Emerson\_12, Emmaloid\_6, EnalisNailo\_5, Enby\_6, EniyanLRS\_26, Enkosi\_8, Estes\_22, Ezurina\_6, FF47\_08, Feyre\_10, Flathead\_6, Floral\_5, FosterFrank\_5, Frankie\_6, FreakyGoo\_18, Frickyeah\_6, Fryberger\_38, Ganymede\_12, GardenSalsa\_21, GenevaB15\_21, Gengar\_10, Geraldini\_12, Gerri43\_7, Getalong\_6, Girafales\_6, Glaske16\_18, GlobiWarming\_5, GrimEater\_5, Guanica15\_12, Guey18\_43, Guillsminger\_10, HedwigODU\_12, Heftyboy\_10, Hegedechwinu\_6, Henrique\_5, Holliday\_6, Homura\_12, Horus\_6, HotPotato\_5, Hurricane\_11, Hyperbowlee\_12, IPHane7\_17, Illumine\_12, Inky\_12, InvictusManeo\_10, Izel\_18, JAWS\_12, Jabbawokkie\_7, Jablanski\_5, JacoRen57\_5, JalFarm20\_6, Jankie\_5, Jarvi\_12, Jeckyll\_12, Job42\_6, Joy99\_12, Judy\_5, Juice456\_6, Kamaru\_6, Karkharias\_5, KayMoney\_5, Keelan\_36, Kenna\_6, Keshu\_11, KiSi\_11, Kimberlium\_6, Kingsley\_6, KleverKiS\_17, Kratio\_9, Kudrefre\_15, Kumao\_16, Larva\_10, LastHope\_12, LastNadiia\_10, LaterM\_12, LeMond\_11, Lea83\_11, Leozinho\_6, Leroy\_6, Leston\_10, LilDirt\_9, LilJank\_15, LilPharaoh\_8, Lilas\_5, LilhomieP\_16, LilyBell\_5, LindNT\_12, LisoBros\_5, LitninMcQueen\_6, LittleRon\_5, LittleShirley\_6, Llorens\_12, LonelyBoi\_5, LongHai\_9, LordVader\_7, Lorde\_6, Lucia\_6, Lunahalos\_12, Lutum\_6, MacKat\_12, MacnCheese\_12, Maco6\_6, Madiba\_6, Makima\_8, Malisha\_6, MarkPhew\_11, Marker\_6, Marshawn\_13, Marteena\_5, MaryV\_29, McMater\_12, Mdavu\_8, MeaningOfLife\_12, Megsy\_12, Mireles\_7, Miryou\_10, Misha28\_6, Mova\_6, Mozy\_6, MrMagoo\_21, Muddy\_8, MulchExplorer\_6, Murucutumbu\_12, Mynx\_12, Nanosmite\_21, Neighly\_10, Neuville\_7, Neville\_15, Nibb\_11, NidoQ\_5, Nikao\_8, NikkiHotWheels\_5, Niklas\_12, NoShow\_6, Nutello\_8, ODay\_6, Octobien14\_16, OgoPogo\_7, OkiRoe\_10, Oksu\_6, Omnicron\_10, Oscar\_11, OwlsT2W\_6, Padfoot\_12, Padpat\_12, Paola\_10, Peanam\_12, Peas\_5, Peel\_12, PegLeg\_17, PeggyLeg03\_5, Peridot\_6, Periwinkle\_6, Phabuloso\_6, Pharb\_11, Phistory\_6, Piatt\_12, Piper2020\_6, Pisa1\_11, Pisa4\_11, Pitbull\_5, Pixie\_11, Plumbus\_6, Pokerus\_11, Pollux\_5, Pollywog\_6, Posh\_5, Prithvi\_12, Psycho\_10, Pucara\_5, Pytheas\_5, Quico\_6, QuincyRose\_11, Rabbitrun\_17, Ramen\_12, Ramsey\_6, Rando14\_10, Reindeer\_15, Rey\_21, Rialto\_6, Richo\_12, Roberts\_7, RockyHorror\_6, Ronaldo\_41, RoseMarie\_17, Rosmarinus\_12, Salvus\_9, SamuelLPlaqson\_12, Sarma624\_6, Scarlett\_11, Seagreen\_6, Sephiroth\_16, SgtBeansprout\_8, Shaobing\_12, ShawBrad\_6, ShedlockHolmes\_11, ShiaSurprise\_12, SilverChicken\_6, SimranZ1\_6, SirPhilip\_11, Skinny\_18, SlimJimmy\_16, Slim\_6, SoSeph\_10, Soul22\_6, Spartoi\_5, Spikelee\_6, Spock\_12, Spooky\_6, Squiddly\_7, Squirty\_6, Stap\_6, Starceвич\_6, Stinson\_12, Studio\_7, Sulley\_12, Syleon\_16, TBond007\_11, TClif\_11, TM4\_8, TMaxx\_7, Tachez\_12, TaiwanKao\_12, Tchotchke\_6, Teejan\_8, Thyatira\_10, TingHuaYa\_12, TiniBug\_12, Tiri\_12, TootsiePop\_6, Tootsieroll\_6, Topper\_12, Torres\_8, Totinger\_6, TpudiCK\_18, Trax\_15, TreyKay\_12, TribieTrouble\_10, Trice\_8, TripleC\_10, TruffulaTree\_12, Twitch\_12, TyDawg\_17, UncleRicky\_6, Urkel\_12, Validus\_12, Veliki\_12, Velveteen\_6, ViviJ\_9, Volt\_40,

Waterfoul\_10, Whitney\_6, Wildcat\_29, Wrigley\_5, Yoshi\_6, YoureAdopted\_11, Yunkel11\_12, Zabiza\_12, Zapner\_7, Zavala\_12, Ziko\_41,

### Summary by start number:

#### Start 20:

- Found in 4 of 536 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Sephiroth\_16 (DU1),

#### Start 24:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rabbitrun\_17 (DU2),

#### Start 25:

- Found in 17 of 536 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 2 of 470
- Called 11.8% of time when present
- Phage (with cluster) where this start called: BritBrat\_5 (CY2), Pollux\_5 (CY1),

#### Start 27:

- Found in 4 of 536 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Kudrefre\_15 (DU1),

#### Start 28:

- Found in 17 of 536 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 4 of 470
- Called 23.5% of time when present
- Phage (with cluster) where this start called: Collard\_10 (K5), Gengar\_10 (K5), Leston\_10 (K5), Omnicron\_10 (K5),

#### Start 30:

- Found in 18 of 536 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 2 of 470
- Called 11.1% of time when present
- Phage (with cluster) where this start called: PegLeg\_17 (M1), Reindeer\_15 (M1),

#### Start 32:

- Found in 17 of 536 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 15 of 470
- Called 88.2% of time when present
- Phage (with cluster) where this start called: Angelique\_5 (CY1), BeeGee\_5 (CY5), Bradissa\_5 (CY1), Cashline\_5 (CY6), Confidence\_5 (CY1), EMSquaredA\_5 (CY1), EnalisNailo\_5 (CY1), Floral\_5 (CY1), Jablanski\_5 (CY3), Lilas\_5 (CY1), LonelyBoi\_5 (CY7), Marteena\_5 (CY1), Posh\_5 (CY4), Pytheas\_5 (CY3), Wrigley\_5 (CY4),

#### Start 34:

- Found in 8 of 536 ( 1.5% ) of genes in pham

- Manual Annotations of this start: 4 of 470
- Called 62.5% of time when present
- Phage (with cluster) where this start called: LilJank\_15 (DU2), Neville\_15 (DU2), Octobien14\_16 (DU1), Syleon\_16 (DU1), Trax\_15 (DU2),

#### Start 35:

- Found in 31 of 536 ( 5.8% ) of genes in pham
- Manual Annotations of this start: 26 of 470
- Called 93.5% of time when present
- Phage (with cluster) where this start called: Auspice\_17 (M1), Aziz\_21 (M2), Azrael100\_28 (V), Bongo\_17 (M1), Bricole\_17 (M1), Cosmo\_29 (V), Diminimus\_18 (M1), Dulcita\_18 (M1), EniyanLRS\_26 (V), Estes\_22 (M2), FreakyGoo\_18 (M1), GardenSalsa\_21 (M2), GenevaB15\_21 (M2), Glaske16\_18 (M1), IPhane7\_17 (M1), Izel\_18 (M1), KleverKiS\_17 (M1), Kumao\_16 (singleton), LilhomieP\_16 (M1), MaryV\_29 (V), MrMagoo\_21 (M2), Nanosmite\_21 (M3), Rey\_21 (M2), RoseMarie\_17 (M1), Skinny\_18 (M1), SlimJimmy\_16 (M1), TpudiCK\_18 (M1), TyDawg\_17 (M1), Wildcat\_29 (V),

#### Start 36:

- Found in 19 of 536 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Krueger\_11 (K6),

#### Start 38:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NoShow\_6 (AB),

#### Start 40:

- Found in 7 of 536 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 2 of 470
- Called 85.7% of time when present
- Phage (with cluster) where this start called: 8UZL\_8 (AB), FF47\_08 (AB), LongHai\_9 (AB), Maco6\_6 (AB), Muddy\_8 (AB), Salvus\_9 (AB),

#### Start 41:

- Found in 53 of 536 ( 9.9% ) of genes in pham
- Manual Annotations of this start: 3 of 470
- Called 5.7% of time when present
- Phage (with cluster) where this start called: LeBron\_7 (L1), Tyson\_7 (L1), UPIE\_7 (L1),

#### Start 43:

- Found in 15 of 536 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Guillsminger\_10 (K5),

#### Start 45:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.

- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArV2\_05 (singleton),

Start 46:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A\_10 (singleton),

Start 47:

- Found in 20 of 536 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Malisha\_6 (DN),

Start 50:

- Found in 2 of 536 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 50.0% of time when present
- Phage (with cluster) where this start called: TM4\_8 (K2),

Start 52:

- Found in 2 of 536 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 50.0% of time when present
- Phage (with cluster) where this start called: JacoRen57\_5 (AB),

Start 53:

- Found in 9 of 536 ( 1.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Dartin\_12 (K1), McMater\_12 (K1), Richo\_12 (K1),

Start 55:

- Found in 3 of 536 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 2 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Curiosium\_13 (K1), LastHope\_12 (K1), TingHuaYa\_12 (K1),

Start 56:

- Found in 115 of 536 ( 21.5% ) of genes in pham
- Manual Annotations of this start: 105 of 470
- Called 97.4% of time when present
- Phage (with cluster) where this start called: ActinUp\_12 (K1), Adephegia\_12 (K1), Adonis\_12 (K1), Ageofdapage\_12 (K1), AlishaPH\_12 (K1), Amelie\_8 (K1), Anaya\_13 (K1), Angelica\_12 (K1), Anma\_12 (K1), Apocalypse\_12 (K1), Asayake\_12 (K1), Atiba\_12 (K1), BEEST\_12 (K1), BGlluviae\_12 (K1), BaghaKamala\_12 (K1), BarrelRoll\_12 (K1), Beezoo\_12 (K1), Bella96\_12 (K1), Belladonna\_12 (K1), Bern\_12 (K1), Binglebops\_8 (K1), Blizzard\_12 (K1), Boiii\_12 (K1), CREW\_12 (K1), CallaLilly\_12 (K1), Capricorn\_12 (K1), CaseJules\_12 (K1), Chavito\_12 (K1), CheetoDust\_12 (K1), Chris\_11 (K1), Clipper\_12 (K1), CrimD\_12 (K1), Dalmuri\_12

(K1), DartGoblin\_12 (K1), Deby\_12 (K1), Devera\_12 (K1), Dole\_12 (K1), DrHayes\_12 (K1), Durfee\_12 (K1), Efra2\_12 (K1), Emerson\_12 (K1), Enkosi\_8 (K1), Ganymede\_12 (K1), Geraldini\_12 (K1), Guanica15\_12 (K1), HedwigODU\_12 (K1), Homura\_12 (K1), Hyperbowlee\_12 (K1), Illumine\_12 (K1), Inky\_12 (K1), JAWS\_12 (K1), Jarvi\_12 (K1), Jeckyll\_12 (K1), Joy99\_12 (K1), KiSi\_11 (K1), LaterM\_12 (K1), LeMond\_11 (K1), LilPharaoh\_8 (K1), LindNT\_12 (K1), Llorens\_12 (K1), Lunahalos\_12 (K1), MacKat\_12 (K1), MarkPheW\_11 (K1), Marshawn\_13 (K6), Mdavu\_8 (K1), MeaningOfLife\_12 (K1), Megsy\_12 (K1), Murucutumbu\_12 (K1), Mynx\_12 (K1), Nibb\_11 (K1), Nikao\_8 (K1), Niklas\_12 (K1), Nutello\_8 (K1), Oscar\_11 (K1), Padfoot\_12 (K1), Padpat\_12 (K1), Peanam\_12 (K1), Peel\_12 (K1), Piatt\_12 (K1), Pisa1\_11 (K1), Pisa4\_11 (K1), Pokerus\_11 (K1), Prithvi\_12 (K1), QuincyRose\_11 (K1), Ramen\_12 (K1), Rosmarinus\_12 (K1), SamuelLPlaQson\_12 (K1), Scarlett\_11 (K1), SgtBeansprout\_8 (K1), Shaobing\_12 (K1), ShiaSurprise\_12 (K1), Spock\_12 (K1), Stinson\_12 (K1), Sulley\_12 (K1), Tachez\_12 (K1), TaiwanKao\_12 (K1), Teejan\_8 (K1), TiniBug\_12 (K1), Tiri\_12 (K1), Topper\_12 (K1), Torres\_8 (K1), TreyKay\_12 (K1), Trice\_8 (K1), TruffulaTree\_12 (K1), Twitch\_12 (K1), Urkel\_12 (K1), Validus\_12 (K1), Veliki\_12 (K1), YoureAdopted\_11 (K1), Yunkel11\_12 (K1), Zabiza\_12 (K1), Zavala\_12 (K1),

Start 57:

- Found in 164 of 536 ( 30.6% ) of genes in pham
- Manual Annotations of this start: 136 of 470
- Called 97.6% of time when present
- Phage (with cluster) where this start called: Acquire49\_7 (L1), Aegeus\_7 (L5), Amgine\_10 (K6), Aminay\_10 (K7), Amohnition\_11 (K6), Applecrisp\_10 (K6), Appletree2\_7 (L1), Archie\_7 (L2), AvadaKedavra\_7 (L1), Baoshan\_6 (L2), Baudelaire\_7 (L5), Bazzle\_7 (L2), Bellis\_8 (L3), BigCheese\_7 (L2), Bobquesha\_13 (K4), BobsGarage\_7 (L2), Boilgate\_9 (K8), BoostSeason\_8 (K2), BourbonZero\_7 (L3), BrainDrainer\_8 (L4), Breezona\_7 (L2), Bromden\_7 (L4), Bryler\_11 (K6), Cain\_11 (K6), Calm\_7 (L1), Chancellor\_13 (K4), Chaser\_7 (L4), Cheetobro\_13 (K4), ChutneyChips\_7 (L4), CicholasNage\_7 (L1), Claus\_7 (L2), Clautastrophe\_8 (L3), Crossroads\_7 (L2), DHan\_7 (L2), DanBing\_6 (L2), DanSyl44\_13 (K4), DarthP\_11 (K6), DirkDirk\_7 (L1), DismalFunk\_8 (K2), DismalStressor\_8 (K2), Douge\_7 (L4), Doughnut\_8 (K2), Douzhi\_7 (L4), DrSeegs\_7 (L2), DuncansLeg\_8 (L3), DyoEdafos\_8 (L4), Ekdilam\_9 (K6), Ellie\_9 (K6), Ellson\_8 (L3), Enceladus\_7 (L1), Eponine\_13 (K4), Faith1\_7 (L2), Farewell\_5 (AF), FarmResident\_7 (L4), Fefferhead\_11 (K6), Findley\_8 (K2), Finemlucis\_7 (L2), Finnry\_8 (L3), Fionnbharth\_13 (K4), Gabriela\_7 (L2), Gardann\_7 (L2), GuuelaD\_7 (L2), Hafay\_7 (L2), Halena\_7 (L1), Hammy\_11 (K6), Itos\_7 (L2), JF1\_13 (K4), Jayhawk\_12 (K1), Jobypre\_8 (L3), JoeDirt\_7 (L1), Jubie\_8 (L3), Juliette\_13 (K4), Kahlid\_7 (L2), Kingsolomon\_8 (L3), KirDoubleO7\_6 (L3), Kraw\_13 (K4), Kropertea\_7 (L4), Krypton555\_8 (L3), Lavahound\_10 (K6), Lebo14\_13 (K4), Lewan\_7 (L2), LilDestine\_7 (L2), LiyuLake\_8 (L3), Loadrie\_7 (L2), Lolly9\_8 (L3), Lumos\_8 (L3), Lynnae\_7 (L2), MAckerman\_7 (L1), Malthus\_13 (K4), Marcoliusprime\_8 (K2), Miley16\_7 (L2), Milly\_8 (K2), MiniLon\_8 (L3), MiniMac\_8 (L3), MissDaisy\_13 (K4), Mitti\_13 (K4), MkaliMitinis3\_7 (L2), Moostard\_8 (L3), MsGreen\_8 (L3), Mufasa\_8 (K2), Netyap\_7 (L2), Nicholas\_8 (L3), Nicholasp3\_7 (L2), November\_10 (K6), OhShagHennessy\_7 (L1), OmniCritical\_13 (K4), OverPar\_7 (L2), PYPDinur\_7 (L4), Patt\_13 (K4), PhelpsODU\_11 (K6), Phrank\_11 (K6), Poochiewood\_7 (L1), Qhanda\_13 (K4), Quby\_7 (L4), Rapunzel97\_12 (K1), Red305\_8 (L3), Reptar3000\_13 (K4), Rose5\_7 (L1), Rossetti\_7 (L2), Rumpelstiltskin\_7 (L2), Ruthiejr\_12 (K4), SamScheppers\_11 (K4), Samty\_8 (L3), Sarshaun\_7 (L2), Shadow1\_10 (K6), Sheng711\_7 (L4), Silverleaf\_7 (L1), Slarp\_13 (K4), Slimphazie\_12 (K1), Snenia\_8 (L3), SoJulia\_7 (L2), Soap141\_7 (L2), Sparky\_5

(AF), Strobilo\_8 (K2), Sunflower1121\_10 (K6), Syra333\_11 (K6), Taquito\_11 (K4), Tierra\_11 (K6), Tigress9\_11 (K6), Tourach\_7 (L2), TriFive\_8 (L3), Underpass\_7 (L2), Unicorn\_11 (K6), Vetrix\_7 (L2), Wamburgexpress\_7 (L1), Whirlwind\_9 (L3), Wigglewobble\_7 (L2), Wilder\_7 (L2), Winky\_7 (L2), Wintermute\_13 (K4), Wyatt2\_7 (L1), Ximenita\_12 (K6), Y10\_13 (K4), Y2\_13 (K4), YasnayaPolyana\_13 (K4), Yuna\_12 (K6), Zakai\_7 (L2), Zaria\_7 (L1), ZhongYanYuan\_6 (L2), ZoeJ\_8 (K2),

Start 59:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TClif\_11 (K6),

Start 60:

- Found in 9 of 536 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 3 of 470
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Holliday\_6 (DN1), Spooky\_6 (DN2), Squiddly\_7 (DN2),

Start 61:

- Found in 67 of 536 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 61 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alexphander\_6 (F1), Aloeri\_6 (F1), Awesomesauce\_6 (F1), Beakin\_6 (F1), Beanstalk\_6 (F1), BigPhil\_6 (F1), Bobi\_6 (F1), Boomer\_6 (F1), Brookers\_6 (F1), Brushbloom\_6 (F1), BuzzLyseyear\_6 (F1), Cerasum\_6 (F1), ChickenDinner\_6 (F1), Coco12\_6 (F1), Cornucopia\_6 (F1), DaWorst\_6 (F1), DirtMcgirt\_6 (F1), DocMcStuffins\_6 (F1), Doomslug\_6 (F), DosHalletts\_6 (F1), Drago\_6 (F1), Emmaloid\_6 (F1), Enby\_6 (F1), Flathead\_6 (F1), Frankie\_6 (F1), Girafales\_6 (F1), Hegedechwinu\_6 (F1), JalFarm20\_6 (F1), Job42\_6 (F1), Juice456\_6 (F1), Kimberlium\_6 (F1), Kingsley\_6 (F1), Leozinho\_6 (F1), LittleShirley\_6 (F1), LordVader\_7 (F), Lorde\_6 (F1), Lucia\_6 (F1), Madiba\_6 (F1), Marker\_6 (F1), Misha28\_6 (F1), Mova\_6 (F1), Mozy\_6 (F1), MulchExplorer\_6 (F1), Oksu\_6 (F1), OwlsT2W\_6 (F1), Peridot\_6 (F1), Piper2020\_6 (F1), Plumbus\_6 (F1), Pollywog\_6 (F1), Quico\_6 (F1), Ramsey\_6 (F1), Rialto\_6 (F1), RockyHorror\_6 (F1), Sarma624\_6 (F1), Seagreen\_6 (F1), SimranZ1\_6 (F1), Slim\_6 (F1), Spikelee\_6 (F1), Squirty\_6 (F3), Stap\_6 (F1), Starceвич\_6 (F1), Tchotchke\_6 (F1), TootsiePop\_6 (F1), Tootsieroll\_6 (F1), Totinger\_6 (F1), UncleRicky\_6 (F1), Velveteen\_6 (F1),

Start 62:

- Found in 7 of 536 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 3 of 470
- Called 42.9% of time when present
- Phage (with cluster) where this start called: MacnCheese\_12 (K3), Pixie\_11 (K3), ShedlockHolmes\_11 (K3),

Start 63:

- Found in 16 of 536 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 11 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agamoto\_9 (FR), AnnabelLee\_7 (FR), Audell\_10 (FR), CardboardBox\_7 (FR), ChamoyPickle\_7 (FR), ChipsNGuac\_7 (FR),

Ezurina\_6 (FR), Gerri43\_7 (FR), LastNadiia\_10 (FR), Makima\_8 (FR), Mireles\_7 (FR), Neuville\_7 (FR), Roberts\_7 (FR), Studio\_7 (FR), TMaxx\_7 (FR), TripleC\_10 (FR),

Start 64:

- Found in 26 of 536 ( 4.9% ) of genes in pham
- Manual Annotations of this start: 4 of 470
- Called 15.4% of time when present
- Phage (with cluster) where this start called: AlleyCat\_10 (K5), Kratio\_9 (K5), Larva\_10 (K5), Spartoi\_5 (singleton),

Start 68:

- Found in 12 of 536 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 10 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Avani\_6 (F2), Blarby\_7 (F), Che9d\_6 (F2), Demsculpinboyz\_6 (F2), Ecliptus\_6 (DN), Jabbawokkie\_7 (F2), ODay\_6 (DN), Ogopogo\_7 (F1), SilverChicken\_6 (F2), Soul22\_6 (F2), Yoshi\_6 (F2), Zapner\_7 (F2),

Start 69:

- Found in 19 of 536 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 13 of 470
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Bridgette\_5 (FA), ChuckDuck\_5 (FA), Constance\_5 (FA), Eileen\_5 (FA), FosterFrank\_5 (FA), GlobiWarming\_5 (FA), Henrique\_5 (FA), HotPotato\_5 (FA), Judy\_5 (FA), Karkharias\_5 (FA), KayMoney\_5 (FA), LilyBell\_5 (FA), LittleRon\_5 (FA), NidoQ\_5 (FA), NikkiHotWheels\_5 (FA), Peas\_5 (FA), PeggyLeg03\_5 (FA), Pucara\_5 (FA),

Start 70:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pitbull\_5 (FQ1),

Start 71:

- Found in 23 of 536 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 16 of 470
- Called 78.3% of time when present
- Phage (with cluster) where this start called: Asapag\_6 (DN1), BENtherdunthat\_6 (DN1), BotCity\_6 (DN), Budski\_6 (DN), CheeseTouch\_6 (DN1), Frickyeah\_6 (DN1), Getalong\_6 (DN1), Horus\_6 (DN1), Kamaru\_6 (DN1), Kenna\_6 (DN1), Leroy\_6 (DN1), LitninMcQueen\_6 (DN1), Lutum\_6 (DN1), Periwinkle\_6 (DN1), Phabuloso\_6 (DN1), Phistory\_6 (DN1), ShawBrad\_6 (DN1), Whitney\_6 (DN1),

Start 72:

- Found in 25 of 536 ( 4.7% ) of genes in pham
- Manual Annotations of this start: 3 of 470
- Called 16.0% of time when present
- Phage (with cluster) where this start called: Feyre\_10 (K5), Neighly\_10 (K3), OkiRoe\_10 (K5), Paola\_10 (K5),

Start 73:

- Found in 9 of 536 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 6 of 470
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Hurricane\_11 (K3), Keshu\_11 (K3), Lea83\_11 (K3), Pharb\_11 (K3), TBond007\_11 (K3), TribbleTrouble\_10 (K3),

#### Start 74:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keelan\_36 (DP),

#### Start 75:

- Found in 25 of 536 ( 4.7% ) of genes in pham
- Manual Annotations of this start: 13 of 470
- Called 56.0% of time when present
- Phage (with cluster) where this start called: Agent47\_10 (K5), BananenDer11\_10 (K5), Dadosky\_10 (K5), DoubleChamp\_10 (K5), Edugator\_9 (K5), Heftyboy\_10 (K5), InvictusManeo\_10 (K5), LilDirt\_9 (K5), Miryou\_10 (K5), Psycho\_10 (K5), SoSeph\_10 (K5), Thyatira\_10 (K5), ViviJ\_9 (K5), Waterfoul\_10 (K5),

#### Start 76:

- Found in 5 of 536 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Rando14\_10 (K5),

#### Start 77:

- Found in 1 of 536 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SirPhilip\_11 (K6),

#### Start 80:

- Found in 2 of 536 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 2 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elfy\_5 (FP), LisoBros\_5 (FP),

#### Start 82:

- Found in 5 of 536 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 5 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_38 (DP), Guey18\_43 (DP), Ronaldo\_41 (DP), Volt\_40 (DP), Ziko\_41 (DP),

#### Start 84:

- Found in 2 of 536 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 2 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BaileyBlu\_5 (FP), CallinAllBarbz\_5 (FP),

#### Start 86:

- Found in 2 of 536 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 2 of 470
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GrimEater\_5 (FP), Jankie\_5 (FP),

### **Summary by clusters:**

There are 41 clusters represented in this pham: FP, DN, FR, M3, V, singleton, K3, K2, K1, M1, K6, K5, K4, K8, DP, F, AF, DN1, DN2, DU1, DU2, CY3, CY2, CY1, AB, CY7, CY6, CY5, CY4, L4, L5, L2, L3, L1, F1, F2, F3, FA, K7, FQ1, M2,

Info for manual annotations of cluster AB:

- Start number 38 was manually annotated 1 time for cluster AB.
- Start number 40 was manually annotated 2 times for cluster AB.
- Start number 52 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AF:

- Start number 57 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster CY1:

- Start number 25 was manually annotated 1 time for cluster CY1.
- Start number 32 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 25 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 32 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 32 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 32 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

- Start number 32 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 32 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster DN:

- Start number 47 was manually annotated 1 time for cluster DN.
- Start number 68 was manually annotated 2 times for cluster DN.
- Start number 71 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 60 was manually annotated 1 time for cluster DN1.
- Start number 71 was manually annotated 14 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 60 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DP:

- Start number 74 was manually annotated 1 time for cluster DP.
- Start number 82 was manually annotated 5 times for cluster DP.

Info for manual annotations of cluster DU1:

- Start number 20 was manually annotated 1 time for cluster DU1.
- Start number 27 was manually annotated 1 time for cluster DU1.
- Start number 34 was manually annotated 2 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 24 was manually annotated 1 time for cluster DU2.
- Start number 34 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster F1:

- Start number 61 was manually annotated 60 times for cluster F1.
- Start number 68 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

- Start number 68 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster F3:

- Start number 61 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster FA:

- Start number 69 was manually annotated 13 times for cluster FA.

Info for manual annotations of cluster FP:

- Start number 80 was manually annotated 2 times for cluster FP.
- Start number 84 was manually annotated 2 times for cluster FP.
- Start number 86 was manually annotated 2 times for cluster FP.

Info for manual annotations of cluster FQ1:

- Start number 70 was manually annotated 1 time for cluster FQ1.

Info for manual annotations of cluster FR:

- Start number 63 was manually annotated 11 times for cluster FR.

Info for manual annotations of cluster K1:

- Start number 55 was manually annotated 2 times for cluster K1.
- Start number 56 was manually annotated 104 times for cluster K1.
- Start number 57 was manually annotated 3 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 50 was manually annotated 1 time for cluster K2.
- Start number 57 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 62 was manually annotated 3 times for cluster K3.
- Start number 73 was manually annotated 6 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 57 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 28 was manually annotated 4 times for cluster K5.
- Start number 43 was manually annotated 1 time for cluster K5.
- Start number 64 was manually annotated 3 times for cluster K5.
- Start number 72 was manually annotated 3 times for cluster K5.
- Start number 75 was manually annotated 13 times for cluster K5.
- Start number 76 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster K6:

- Start number 36 was manually annotated 1 time for cluster K6.
- Start number 56 was manually annotated 1 time for cluster K6.
- Start number 57 was manually annotated 22 times for cluster K6.
- Start number 59 was manually annotated 1 time for cluster K6.
- Start number 77 was manually annotated 1 time for cluster K6.

Info for manual annotations of cluster K7:

- Start number 57 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 57 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster L1:

- Start number 41 was manually annotated 3 times for cluster L1.
- Start number 57 was manually annotated 16 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 57 was manually annotated 32 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 57 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 57 was manually annotated 6 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 57 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 30 was manually annotated 2 times for cluster M1.
- Start number 35 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 35 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 35 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 35 was manually annotated 5 times for cluster V.

### **Gene Information:**

Gene: 8UZL\_8 Start: 5809, Stop: 6405, Start Num: 40

Candidate Starts for 8UZL\_8:

(Start: 40 @5809 has 2 MA's), (85, 5932), (98, 6001), (123, 6151), (136, 6190),

Gene: Acquire49\_7 Start: 5429, Stop: 6040, Start Num: 57

Candidate Starts for Acquire49\_7:

(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: ActinUp\_12 Start: 7313, Stop: 7855, Start Num: 56

Candidate Starts for ActinUp\_12:

(Start: 56 @7313 has 105 MA's), (106, 7448), (147, 7616), (186, 7811), (191, 7829), (192, 7838),

Gene: Adephagia\_12 Start: 7313, Stop: 7855, Start Num: 56

Candidate Starts for Adephagia\_12:

(Start: 56 @7313 has 105 MA's), (106, 7448), (147, 7616), (186, 7811), (191, 7829), (192, 7838),

Gene: Adonis\_12 Start: 7324, Stop: 7866, Start Num: 56

Candidate Starts for Adonis\_12:

(Start: 56 @7324 has 105 MA's), (106, 7459), (147, 7627), (186, 7822), (191, 7840), (192, 7849),

Gene: Aegeus\_7 Start: 5028, Stop: 5621, Start Num: 57

Candidate Starts for Aegeus\_7:

(39, 4989), (51, 5013), (Start: 57 @5028 has 136 MA's), (94, 5163), (99, 5175), (103, 5193), (114, 5265), (120, 5313), (130, 5346), (135, 5364), (145, 5391), (180, 5577), (181, 5580),

Gene: Agamotto\_9 Start: 8117, Stop: 8620, Start Num: 63

Candidate Starts for Agamotto\_9:

(Start: 63 @8117 has 11 MA's), (110, 8285), (112, 8300),

Gene: Agent47\_10 Start: 7496, Stop: 8026, Start Num: 75

Candidate Starts for Agent47\_10:

(Start: 64 @7460 has 4 MA's), (Start: 72 @7481 has 3 MA's), (Start: 75 @7496 has 13 MA's), (81, 7508), (147, 7793),

Gene: Ageofdapage\_12 Start: 7253, Stop: 7795, Start Num: 56

Candidate Starts for Ageofdapage\_12:

(Start: 56 @7253 has 105 MA's), (106, 7388), (147, 7556), (191, 7769), (192, 7778),

Gene: Alexphander\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Alexphander\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: AlishaPH\_12 Start: 7315, Stop: 7857, Start Num: 56

Candidate Starts for AlishaPH\_12:

(Start: 56 @7315 has 105 MA's), (106, 7450), (111, 7483), (147, 7618), (186, 7813), (191, 7831), (192, 7840),

Gene: AlleyCat\_10 Start: 7355, Stop: 7921, Start Num: 64

Candidate Starts for AlleyCat\_10:

(Start: 64 @7355 has 4 MA's), (Start: 72 @7376 has 3 MA's), (Start: 75 @7391 has 13 MA's), (81, 7403), (147, 7688),

Gene: Aloeri\_6 Start: 4412, Stop: 4948, Start Num: 61

Candidate Starts for Aloeri\_6:

(Start: 61 @4412 has 61 MA's), (115, 4634), (132, 4703), (135, 4712), (147, 4730), (166, 4814), (192, 4931),

Gene: Amelie\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Amelie\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: Amgine\_10 Start: 6944, Stop: 7507, Start Num: 57

Candidate Starts for Amgine\_10:

(Start: 57 @6944 has 136 MA's), (147, 7274), (191, 7481), (192, 7490),

Gene: Aminay\_10 Start: 7229, Stop: 7786, Start Num: 57

Candidate Starts for Aminay\_10:

(Start: 57 @7229 has 136 MA's), (192, 7769),

Gene: Amohnition\_11 Start: 7198, Stop: 7755, Start Num: 57

Candidate Starts for Amohnition\_11:

(Start: 47 @7180 has 1 MA's), (Start: 57 @7198 has 136 MA's), (147, 7522), (186, 7711), (191, 7729), (192, 7738),

Gene: Anaya\_13 Start: 7316, Stop: 7855, Start Num: 56

Candidate Starts for Anaya\_13:

(Start: 56 @7316 has 105 MA's), (106, 7451), (131, 7583), (147, 7619), (186, 7811), (191, 7829), (192, 7838),

Gene: Angelica\_12 Start: 7293, Stop: 7826, Start Num: 56

Candidate Starts for Angelica\_12:

(Start: 56 @7293 has 105 MA's), (106, 7422), (191, 7800), (192, 7809),

Gene: Angelique\_5 Start: 4595, Stop: 5251, Start Num: 32

Candidate Starts for Angelique\_5:

(Start: 25 @4568 has 2 MA's), (Start: 32 @4595 has 15 MA's), (Start: 36 @4604 has 1 MA's), (Start: 47 @4628 has 1 MA's), (66, 4670), (67, 4673), (116, 4919),

Gene: Anma\_12 Start: 7263, Stop: 7805, Start Num: 56

Candidate Starts for Anma\_12:

(Start: 56 @7263 has 105 MA's), (106, 7398), (147, 7566), (186, 7761), (191, 7779), (192, 7788),

Gene: AnnabelLee\_7 Start: 4967, Stop: 5473, Start Num: 63

Candidate Starts for AnnabelLee\_7:

(Start: 63 @4967 has 11 MA's), (112, 5153), (132, 5246),

Gene: Apocalypse\_12 Start: 7291, Stop: 7833, Start Num: 56

Candidate Starts for Apocalypse\_12:

(Start: 56 @7291 has 105 MA's), (106, 7426), (147, 7594), (186, 7789), (191, 7807), (192, 7816),

Gene: Applecrisp\_10 Start: 7342, Stop: 7908, Start Num: 57

Candidate Starts for Applecrisp\_10:

(Start: 57 @7342 has 136 MA's), (147, 7675), (191, 7882), (192, 7891),

Gene: Appletree2\_7 Start: 5403, Stop: 6014, Start Num: 57

Candidate Starts for Appletree2\_7:

(Start: 41 @5376 has 3 MA's), (Start: 57 @5403 has 136 MA's), (132, 5718), (134, 5724), (142, 5748), (174, 5922), (183, 5961),

Gene: ArV2\_05 Start: 4203, Stop: 4730, Start Num: 45

Candidate Starts for ArV2\_05:

(45, 4203), (Start: 69 @4236 has 13 MA's), (108, 4362), (171, 4641),

Gene: Archie\_7 Start: 5396, Stop: 6001, Start Num: 57

Candidate Starts for Archie\_7:

(Start: 57 @5396 has 136 MA's), (99, 5537), (124, 5681), (135, 5720), (142, 5741), (174, 5909), (183, 5948),

Gene: Asapag\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for Asapag\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: Asayake\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Asayake\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Atiba\_12 Start: 7279, Stop: 7821, Start Num: 56

Candidate Starts for Atiba\_12:

(Start: 56 @7279 has 105 MA's), (106, 7414), (147, 7582), (186, 7777), (191, 7795), (192, 7804),

Gene: Audell\_10 Start: 8386, Stop: 8895, Start Num: 63

Candidate Starts for Audell\_10:

(Start: 63 @8386 has 11 MA's),

Gene: Auspice\_17 Start: 9093, Stop: 9809, Start Num: 35

Candidate Starts for Auspice\_17:

(18, 9006), (Start: 30 @9075 has 2 MA's), (Start: 35 @9093 has 26 MA's), (94, 9288), (107, 9342), (114, 9399), (133, 9498), (138, 9510), (140, 9519), (164, 9624),

Gene: AvadaKedavra\_7 Start: 5429, Stop: 6040, Start Num: 57

Candidate Starts for AvadaKedavra\_7:

(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: Avani\_6 Start: 4307, Stop: 4855, Start Num: 68

Candidate Starts for Avani\_6:

(26, 4205), (Start: 68 @4307 has 10 MA's), (93, 4412), (100, 4436), (128, 4595), (172, 4760),

Gene: Awesomesauce\_6 Start: 4411, Stop: 4947, Start Num: 61

Candidate Starts for Awesomesauce\_6:

(Start: 61 @4411 has 61 MA's), (115, 4633), (132, 4702), (135, 4711), (147, 4729), (166, 4813), (192, 4930),

Gene: Aziz\_21 Start: 9693, Stop: 10367, Start Num: 35

Candidate Starts for Aziz\_21:

(Start: 35 @9693 has 26 MA's), (100, 9870), (114, 9960), (124, 10023), (137, 10068),

Gene: Azrael100\_28 Start: 12267, Stop: 12920, Start Num: 35

Candidate Starts for Azrael100\_28:

(Start: 35 @12267 has 26 MA's), (89, 12366), (94, 12414), (106, 12459), (118, 12561), (120, 12573), (150, 12672), (153, 12681), (168, 12765), (185, 12864),

Gene: BEEST\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for BEEST\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: BENtherdunthat\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for BENtherdunthat\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: BGlluviae\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for BGlluviae\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: BaghaKamala\_12 Start: 7289, Stop: 7825, Start Num: 56

Candidate Starts for BaghaKamala\_12:

(Start: 56 @7289 has 105 MA's), (106, 7418), (147, 7586), (186, 7781), (191, 7799), (192, 7808),

Gene: BaileyBlu\_5 Start: 4160, Stop: 4618, Start Num: 84

Candidate Starts for BaileyBlu\_5:

(Start: 84 @4160 has 2 MA's), (175, 4547),

Gene: BananenDer11\_10 Start: 7478, Stop: 7987, Start Num: 75

Candidate Starts for BananenDer11\_10:

(Start: 28 @7358 has 4 MA's), (Start: 43 @7397 has 1 MA's), (Start: 64 @7442 has 4 MA's), (Start: 72 @7463 has 3 MA's), (Start: 75 @7478 has 13 MA's), (81, 7490), (147, 7763),

Gene: Baoshan\_6 Start: 5250, Stop: 5855, Start Num: 57

Candidate Starts for Baoshan\_6:

(Start: 57 @5250 has 136 MA's), (99, 5391), (135, 5574), (142, 5595), (152, 5625), (160, 5682), (174, 5763), (183, 5802),

Gene: BarrelRoll\_12 Start: 7307, Stop: 7849, Start Num: 56

Candidate Starts for BarrelRoll\_12:

(Start: 56 @7307 has 105 MA's), (106, 7442), (147, 7610), (186, 7805), (191, 7823), (192, 7832),

Gene: Baudelaire\_7 Start: 5028, Stop: 5621, Start Num: 57

Candidate Starts for Baudelaire\_7:

(39, 4989), (51, 5013), (Start: 57 @5028 has 136 MA's), (94, 5163), (99, 5175), (103, 5193), (114, 5265), (120, 5313), (130, 5346), (135, 5364), (145, 5391), (180, 5577), (181, 5580),

Gene: Bazzle\_7 Start: 5372, Stop: 5977, Start Num: 57

Candidate Starts for Bazzle\_7:

(Start: 57 @5372 has 136 MA's), (99, 5513), (124, 5657), (135, 5696), (142, 5717), (174, 5885), (183, 5924),

Gene: Beakin\_6 Start: 4411, Stop: 4947, Start Num: 61

Candidate Starts for Beakin\_6:

(Start: 61 @4411 has 61 MA's), (115, 4633), (132, 4702), (135, 4711), (166, 4813), (192, 4930),

Gene: Beanstalk\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Beanstalk\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: BeeGee\_5 Start: 4598, Stop: 5254, Start Num: 32

Candidate Starts for BeeGee\_5:

(Start: 25 @4571 has 2 MA's), (Start: 32 @4598 has 15 MA's), (Start: 36 @4607 has 1 MA's), (Start: 47 @4631 has 1 MA's), (66, 4673), (67, 4676), (116, 4922),

Gene: Beezoo\_12 Start: 7339, Stop: 7875, Start Num: 56

Candidate Starts for Beezoo\_12:

(Start: 56 @7339 has 105 MA's), (106, 7468), (147, 7636), (186, 7831), (191, 7849), (192, 7858),

Gene: Bella96\_12 Start: 7242, Stop: 7784, Start Num: 56

Candidate Starts for Bella96\_12:

(Start: 56 @7242 has 105 MA's), (106, 7377), (147, 7545), (186, 7740), (191, 7758), (192, 7767),

Gene: Belladonna\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Belladonna\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Bellis\_8 Start: 5538, Stop: 6137, Start Num: 57

Candidate Starts for Bellis\_8:

(Start: 57 @5538 has 136 MA's), (111, 5724), (121, 5799), (127, 5820), (158, 5946), (174, 6036),

Gene: Bern\_12 Start: 7282, Stop: 7815, Start Num: 56

Candidate Starts for Bern\_12:

(Start: 56 @7282 has 105 MA's), (106, 7411), (147, 7579), (191, 7789), (192, 7798),

Gene: BigCheese\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for BigCheese\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: BigPhil\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for BigPhil\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Biglebops\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Biglebops\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: Blarby\_7 Start: 4831, Stop: 5379, Start Num: 68

Candidate Starts for Blarby\_7:

(1, 4405), (2, 4408), (4, 4540), (12, 4615), (15, 4651), (22, 4714), (Start: 68 @4831 has 10 MA's), (93, 4936), (100, 4960), (128, 5119), (172, 5284),

Gene: Blizzard\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Blizzard\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Bobi\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Bobi\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Bobquesha\_13 Start: 8298, Stop: 8870, Start Num: 57  
Candidate Starts for Bobquesha\_13:  
(Start: 57 @8298 has 136 MA's), (129, 8586), (147, 8631),

Gene: BobsGarage\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for BobsGarage\_7:  
(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743),  
(142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Boiiii\_12 Start: 7357, Stop: 7899, Start Num: 56  
Candidate Starts for Boiiii\_12:  
(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Boilgate\_9 Start: 7303, Stop: 7857, Start Num: 57  
Candidate Starts for Boilgate\_9:  
(Start: 57 @7303 has 136 MA's), (92, 7414), (111, 7501), (115, 7534), (129, 7591), (147, 7630), (149,  
7636), (191, 7831),

Gene: Bongo\_17 Start: 9093, Stop: 9809, Start Num: 35  
Candidate Starts for Bongo\_17:  
(18, 9006), (Start: 30 @9075 has 2 MA's), (Start: 35 @9093 has 26 MA's), (94, 9288), (107, 9342),  
(114, 9399), (133, 9498), (138, 9510), (140, 9519), (164, 9624),

Gene: Boomer\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Boomer\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: BoostSeason\_8 Start: 5333, Stop: 5878, Start Num: 57  
Candidate Starts for BoostSeason\_8:  
(Start: 57 @5333 has 136 MA's), (135, 5636), (147, 5654), (191, 5852),

Gene: BotCity\_6 Start: 4325, Stop: 4876, Start Num: 71  
Candidate Starts for BotCity\_6:  
(Start: 71 @4325 has 16 MA's), (90, 4406), (105, 4478), (172, 4784),

Gene: BourbonZero\_7 Start: 5543, Stop: 6142, Start Num: 57  
Candidate Starts for BourbonZero\_7:  
(Start: 57 @5543 has 136 MA's), (111, 5729), (121, 5804), (158, 5951), (174, 6041),

Gene: Bradissa\_5 Start: 4602, Stop: 5258, Start Num: 32  
Candidate Starts for Bradissa\_5:  
(Start: 25 @4575 has 2 MA's), (Start: 32 @4602 has 15 MA's), (Start: 36 @4611 has 1 MA's), (Start: 47  
@4635 has 1 MA's), (66, 4677), (67, 4680), (116, 4926),

Gene: BrainDrainer\_8 Start: 5236, Stop: 5844, Start Num: 57  
Candidate Starts for BrainDrainer\_8:  
(Start: 57 @5236 has 136 MA's), (83, 5308), (94, 5365), (142, 5581), (174, 5749), (184, 5794),

Gene: Breezona\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Breezona\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Bricole\_17 Start: 9092, Stop: 9808, Start Num: 35

Candidate Starts for Bricole\_17:

(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: Bridgette\_5 Start: 5076, Stop: 5570, Start Num: 69

Candidate Starts for Bridgette\_5:

(Start: 69 @5076 has 13 MA's), (157, 5457), (173, 5532),

Gene: BritBrat\_5 Start: 4577, Stop: 5260, Start Num: 25

Candidate Starts for BritBrat\_5:

(Start: 25 @4577 has 2 MA's), (Start: 32 @4604 has 15 MA's), (Start: 36 @4613 has 1 MA's), (Start: 47 @4637 has 1 MA's), (66, 4679), (67, 4682), (116, 4928),

Gene: Bromden\_7 Start: 5140, Stop: 5754, Start Num: 57

Candidate Starts for Bromden\_7:

(Start: 57 @5140 has 136 MA's), (83, 5212), (142, 5485), (160, 5572), (174, 5659), (184, 5704),

Gene: Brookers\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Brookers\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Brushbloom\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Brushbloom\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Bryler\_11 Start: 6246, Stop: 6824, Start Num: 57

Candidate Starts for Bryler\_11:

(Start: 57 @6246 has 136 MA's), (147, 6591), (155, 6630), (192, 6807),

Gene: Budski\_6 Start: 4327, Stop: 4875, Start Num: 71

Candidate Starts for Budski\_6:

(3, 3985), (4, 4027), (7, 4060), (10, 4096), (14, 4120), (17, 4141), (Start: 60 @4294 has 3 MA's), (Start: 71 @4327 has 16 MA's), (105, 4480), (157, 4723), (172, 4786),

Gene: BuzzLyseyear\_6 Start: 4407, Stop: 4943, Start Num: 61

Candidate Starts for BuzzLyseyear\_6:

(Start: 61 @4407 has 61 MA's), (115, 4629), (132, 4698), (135, 4707), (166, 4809), (192, 4926),

Gene: CREW\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for CREW\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Cain\_11 Start: 6234, Stop: 6812, Start Num: 57

Candidate Starts for Cain\_11:

(Start: 57 @6234 has 136 MA's), (147, 6579), (155, 6618), (192, 6795),

Gene: CallaLilly\_12 Start: 7286, Stop: 7822, Start Num: 56

Candidate Starts for CallaLilly\_12:

(Start: 56 @7286 has 105 MA's), (106, 7415), (147, 7583), (186, 7778), (191, 7796), (192, 7805),

Gene: CallinAllBarbz\_5 Start: 4163, Stop: 4621, Start Num: 84

Candidate Starts for CallinAllBarbz\_5:

(Start: 52 @4088 has 1 MA's), (Start: 84 @4163 has 2 MA's), (158, 4499),

Gene: Calm\_7 Start: 5430, Stop: 6041, Start Num: 57

Candidate Starts for Calm\_7:

(Start: 41 @5403 has 3 MA's), (Start: 57 @5430 has 136 MA's), (132, 5745), (134, 5751), (142, 5775), (174, 5949), (183, 5988),

Gene: Capricorn\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Capricorn\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: CardboardBox\_7 Start: 4967, Stop: 5473, Start Num: 63

Candidate Starts for CardboardBox\_7:

(Start: 63 @4967 has 11 MA's), (112, 5153), (132, 5246),

Gene: CaseJules\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for CaseJules\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Cashline\_5 Start: 4451, Stop: 5107, Start Num: 32

Candidate Starts for Cashline\_5:

(Start: 25 @4424 has 2 MA's), (Start: 32 @4451 has 15 MA's), (Start: 36 @4460 has 1 MA's), (66, 4526), (67, 4529), (116, 4775),

Gene: Cerasum\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Cerasum\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: ChamoyPickle\_7 Start: 4967, Stop: 5473, Start Num: 63

Candidate Starts for ChamoyPickle\_7:

(Start: 63 @4967 has 11 MA's), (112, 5153), (132, 5246),

Gene: Chancellor\_13 Start: 8544, Stop: 9116, Start Num: 57

Candidate Starts for Chancellor\_13:

(Start: 57 @8544 has 136 MA's), (129, 8832), (147, 8877),

Gene: Chaser\_7 Start: 5142, Stop: 5759, Start Num: 57

Candidate Starts for Chaser\_7:

(Start: 57 @5142 has 136 MA's), (83, 5214), (94, 5271), (142, 5487), (174, 5664), (184, 5709),

Gene: Chavito\_12 Start: 6370, Stop: 6924, Start Num: 56

Candidate Starts for Chavito\_12:

(Start: 56 @6370 has 105 MA's), (106, 6520), (147, 6688), (191, 6898),

Gene: Che9d\_6 Start: 4316, Stop: 4864, Start Num: 68

Candidate Starts for Che9d\_6:

(2, 3893), (4, 4025), (12, 4100), (15, 4136), (22, 4199), (Start: 68 @4316 has 10 MA's), (93, 4421), (100, 4445), (128, 4604), (172, 4769),

Gene: CheeseTouch\_6 Start: 4327, Stop: 4875, Start Num: 71  
Candidate Starts for CheeseTouch\_6:  
(3, 3985), (4, 4027), (7, 4060), (10, 4096), (14, 4120), (17, 4141), (Start: 60 @4294 has 3 MA's), (Start: 71 @4327 has 16 MA's), (105, 4480), (157, 4723), (172, 4786),

Gene: CheetoDust\_12 Start: 7333, Stop: 7875, Start Num: 56  
Candidate Starts for CheetoDust\_12:  
(Start: 56 @7333 has 105 MA's), (106, 7468), (147, 7636), (186, 7831), (191, 7849), (192, 7858),

Gene: Cheetobro\_13 Start: 8544, Stop: 9116, Start Num: 57  
Candidate Starts for Cheetobro\_13:  
(Start: 57 @8544 has 136 MA's), (129, 8832), (147, 8877),

Gene: ChickenDinner\_6 Start: 4412, Stop: 4948, Start Num: 61  
Candidate Starts for ChickenDinner\_6:  
(Start: 61 @4412 has 61 MA's), (115, 4634), (132, 4703), (135, 4712), (147, 4730), (166, 4814), (192, 4931),

Gene: ChipsNGuac\_7 Start: 4967, Stop: 5473, Start Num: 63  
Candidate Starts for ChipsNGuac\_7:  
(Start: 63 @4967 has 11 MA's), (112, 5153), (132, 5246),

Gene: Chris\_11 Start: 6182, Stop: 6724, Start Num: 56  
Candidate Starts for Chris\_11:  
(Start: 56 @6182 has 105 MA's), (186, 6680), (191, 6698), (192, 6707),

Gene: ChuckDuck\_5 Start: 5037, Stop: 5531, Start Num: 69  
Candidate Starts for ChuckDuck\_5:  
(Start: 69 @5037 has 13 MA's), (173, 5493),

Gene: ChutneyChips\_7 Start: 5139, Stop: 5747, Start Num: 57  
Candidate Starts for ChutneyChips\_7:  
(Start: 57 @5139 has 136 MA's), (83, 5211), (94, 5268), (134, 5460), (142, 5484), (174, 5652), (184, 5697),

Gene: CicholasNage\_7 Start: 5430, Stop: 6041, Start Num: 57  
Candidate Starts for CicholasNage\_7:  
(Start: 41 @5403 has 3 MA's), (Start: 57 @5430 has 136 MA's), (132, 5745), (134, 5751), (142, 5775), (174, 5949), (183, 5988),

Gene: Claus\_7 Start: 5430, Stop: 6035, Start Num: 57  
Candidate Starts for Claus\_7:  
(Start: 57 @5430 has 136 MA's), (99, 5571), (135, 5754), (142, 5775), (152, 5805), (160, 5862), (174, 5943), (183, 5982),

Gene: Clautastrophe\_8 Start: 5542, Stop: 6141, Start Num: 57  
Candidate Starts for Clautastrophe\_8:  
(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: Clipper\_12 Start: 7333, Stop: 7875, Start Num: 56  
Candidate Starts for Clipper\_12:  
(Start: 56 @7333 has 105 MA's), (106, 7468), (147, 7636), (186, 7831), (191, 7849), (192, 7858),

Gene: Coco12\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Coco12\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (147, 4726), (166, 4810), (192, 4927),

Gene: Collard\_10 Start: 7358, Stop: 7987, Start Num: 28  
Candidate Starts for Collard\_10:  
(Start: 28 @7358 has 4 MA's), (Start: 43 @7397 has 1 MA's), (Start: 64 @7442 has 4 MA's), (Start: 72 @7463 has 3 MA's), (Start: 75 @7478 has 13 MA's), (81, 7490), (147, 7763),

Gene: Confidence\_5 Start: 4598, Stop: 5254, Start Num: 32  
Candidate Starts for Confidence\_5:  
(Start: 25 @4571 has 2 MA's), (Start: 32 @4598 has 15 MA's), (Start: 36 @4607 has 1 MA's), (Start: 47 @4631 has 1 MA's), (66, 4673), (67, 4676), (116, 4922),

Gene: Constance\_5 Start: 5077, Stop: 5574, Start Num: 69  
Candidate Starts for Constance\_5:  
(Start: 69 @5077 has 13 MA's), (173, 5536),

Gene: Cornucopia\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Cornucopia\_6:  
(Start: 61 @4408 has 61 MA's), (132, 4699), (135, 4708), (192, 4927),

Gene: Cosmo\_29 Start: 12274, Stop: 12927, Start Num: 35  
Candidate Starts for Cosmo\_29:  
(Start: 35 @12274 has 26 MA's), (89, 12373), (94, 12421), (106, 12466), (118, 12568), (120, 12580), (150, 12679), (153, 12688), (168, 12772), (185, 12871),

Gene: CrimD\_12 Start: 7285, Stop: 7827, Start Num: 56  
Candidate Starts for CrimD\_12:  
(Start: 56 @7285 has 105 MA's), (106, 7420), (135, 7564), (147, 7588), (186, 7783), (191, 7801), (192, 7810),

Gene: Crossroads\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for Crossroads\_7:  
(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Curiosium\_13 Start: 6689, Stop: 7222, Start Num: 55  
Candidate Starts for Curiosium\_13:  
(Start: 55 @6689 has 2 MA's), (106, 6824), (147, 6992), (191, 7196), (192, 7205),

Gene: DHan\_7 Start: 5366, Stop: 5971, Start Num: 57  
Candidate Starts for DHan\_7:  
(Start: 57 @5366 has 136 MA's), (99, 5507), (135, 5690), (142, 5711), (152, 5741), (160, 5798), (174, 5879), (183, 5918),

Gene: DS6A\_10 Start: 7559, Stop: 8122, Start Num: 46  
Candidate Starts for DS6A\_10:  
(Start: 46 @7559 has 1 MA's), (117, 7835), (125, 7868), (192, 8105),

Gene: DaWorst\_6 Start: 4409, Stop: 4945, Start Num: 61  
Candidate Starts for DaWorst\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: Dadosky\_10 Start: 7391, Stop: 7921, Start Num: 75

Candidate Starts for Dadosky\_10:

(Start: 64 @7355 has 4 MA's), (Start: 72 @7376 has 3 MA's), (Start: 75 @7391 has 13 MA's), (81, 7403), (147, 7688),

Gene: Dalmuri\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Dalmuri\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: DanBing\_6 Start: 5249, Stop: 5854, Start Num: 57

Candidate Starts for DanBing\_6:

(Start: 57 @5249 has 136 MA's), (99, 5390), (135, 5573), (142, 5594), (152, 5624), (160, 5681), (174, 5762), (183, 5801),

Gene: DanSyl44\_13 Start: 8547, Stop: 9119, Start Num: 57

Candidate Starts for DanSyl44\_13:

(Start: 57 @8547 has 136 MA's), (129, 8835), (147, 8880),

Gene: DartGoblin\_12 Start: 7242, Stop: 7784, Start Num: 56

Candidate Starts for DartGoblin\_12:

(Start: 56 @7242 has 105 MA's), (106, 7377), (147, 7545), (186, 7740), (191, 7758), (192, 7767),

Gene: DarthP\_11 Start: 7198, Stop: 7755, Start Num: 57

Candidate Starts for DarthP\_11:

(Start: 47 @7180 has 1 MA's), (Start: 57 @7198 has 136 MA's), (147, 7522), (186, 7711), (191, 7729), (192, 7738),

Gene: Dartin\_12 Start: 6370, Stop: 6936, Start Num: 53

Candidate Starts for Dartin\_12:

(53, 6370), (Start: 56 @6376 has 105 MA's), (106, 6532), (147, 6700), (191, 6910),

Gene: Deby\_12 Start: 7293, Stop: 7826, Start Num: 56

Candidate Starts for Deby\_12:

(Start: 56 @7293 has 105 MA's), (106, 7422), (191, 7800), (192, 7809),

Gene: Demsculpinboyz\_6 Start: 4307, Stop: 4855, Start Num: 68

Candidate Starts for Demsculpinboyz\_6:

(4, 4016), (12, 4091), (15, 4127), (22, 4190), (Start: 68 @4307 has 10 MA's), (93, 4412), (100, 4436), (128, 4595), (172, 4760),

Gene: Devera\_12 Start: 7321, Stop: 7854, Start Num: 56

Candidate Starts for Devera\_12:

(Start: 56 @7321 has 105 MA's), (106, 7447), (147, 7615), (191, 7828), (192, 7837),

Gene: Diminimus\_18 Start: 9092, Stop: 9808, Start Num: 35

Candidate Starts for Diminimus\_18:

(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: DirkDirk\_7 Start: 5431, Stop: 6042, Start Num: 57

Candidate Starts for DirkDirk\_7:

(Start: 41 @5404 has 3 MA's), (Start: 57 @5431 has 136 MA's), (132, 5746), (134, 5752), (142, 5776), (174, 5950), (183, 5989),

Gene: DirtMcgirt\_6 Start: 4410, Stop: 4946, Start Num: 61

Candidate Starts for DirtMcgirt\_6:

(Start: 61 @4410 has 61 MA's), (115, 4632), (132, 4701), (135, 4710), (166, 4812), (192, 4929),

Gene: DismalFunk\_8 Start: 5349, Stop: 5891, Start Num: 57

Candidate Starts for DismalFunk\_8:

(Start: 57 @5349 has 136 MA's), (135, 5652), (147, 5670), (191, 5865),

Gene: DismalStressor\_8 Start: 5349, Stop: 5891, Start Num: 57

Candidate Starts for DismalStressor\_8:

(Start: 57 @5349 has 136 MA's), (135, 5652), (147, 5670), (191, 5865),

Gene: DocMcStuffins\_6 Start: 4412, Stop: 4948, Start Num: 61

Candidate Starts for DocMcStuffins\_6:

(Start: 61 @4412 has 61 MA's), (115, 4634), (132, 4703), (135, 4712), (147, 4730), (166, 4814), (192, 4931),

Gene: Dole\_12 Start: 7321, Stop: 7854, Start Num: 56

Candidate Starts for Dole\_12:

(Start: 56 @7321 has 105 MA's), (106, 7447), (147, 7615), (191, 7828), (192, 7837),

Gene: Doomslug\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Doomslug\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: DosHalletts\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for DosHalletts\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: DoubleChamp\_10 Start: 7478, Stop: 7987, Start Num: 75

Candidate Starts for DoubleChamp\_10:

(Start: 28 @7358 has 4 MA's), (Start: 43 @7397 has 1 MA's), (Start: 64 @7442 has 4 MA's), (Start: 72 @7463 has 3 MA's), (Start: 75 @7478 has 13 MA's), (81, 7490), (147, 7763),

Gene: Douge\_7 Start: 5097, Stop: 5705, Start Num: 57

Candidate Starts for Douge\_7:

(Start: 57 @5097 has 136 MA's), (83, 5169), (94, 5226), (142, 5442), (145, 5448), (174, 5610), (184, 5655),

Gene: Doughnut\_8 Start: 5333, Stop: 5878, Start Num: 57

Candidate Starts for Doughnut\_8:

(Start: 57 @5333 has 136 MA's), (135, 5636), (147, 5654), (191, 5852),

Gene: Douzhi\_7 Start: 5097, Stop: 5705, Start Num: 57

Candidate Starts for Douzhi\_7:

(Start: 57 @5097 has 136 MA's), (83, 5169), (94, 5226), (142, 5442), (174, 5610), (184, 5655),

Gene: DrHayes\_12 Start: 7263, Stop: 7805, Start Num: 56

Candidate Starts for DrHayes\_12:

(Start: 56 @7263 has 105 MA's), (106, 7398), (147, 7566), (186, 7761), (191, 7779), (192, 7788),

Gene: DrSeegs\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for DrSeegs\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Drago\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Drago\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Dulcita\_18 Start: 9092, Stop: 9808, Start Num: 35

Candidate Starts for Dulcita\_18:

(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: DuncansLeg\_8 Start: 5545, Stop: 6144, Start Num: 57

Candidate Starts for DuncansLeg\_8:

(Start: 57 @5545 has 136 MA's), (111, 5731), (121, 5806), (158, 5953), (174, 6043),

Gene: Durfee\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Durfee\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: DyoEdafos\_8 Start: 5282, Stop: 5893, Start Num: 57

Candidate Starts for DyoEdafos\_8:

(Start: 57 @5282 has 136 MA's), (142, 5621), (174, 5795), (184, 5840), (193, 5885),

Gene: EMSquaredA\_5 Start: 4604, Stop: 5260, Start Num: 32

Candidate Starts for EMSquaredA\_5:

(Start: 25 @4577 has 2 MA's), (Start: 32 @4604 has 15 MA's), (Start: 36 @4613 has 1 MA's), (Start: 47 @4637 has 1 MA's), (66, 4679), (67, 4682), (116, 4928),

Gene: Ecliptus\_6 Start: 4342, Stop: 4902, Start Num: 68

Candidate Starts for Ecliptus\_6:

(Start: 68 @4342 has 10 MA's), (100, 4483), (163, 4768), (172, 4807),

Gene: Edugator\_9 Start: 7391, Stop: 7921, Start Num: 75

Candidate Starts for Edugator\_9:

(Start: 64 @7355 has 4 MA's), (Start: 72 @7376 has 3 MA's), (Start: 75 @7391 has 13 MA's), (81, 7403), (147, 7688),

Gene: Efra2\_12 Start: 6263, Stop: 6796, Start Num: 56

Candidate Starts for Efra2\_12:

(53, 6257), (Start: 56 @6263 has 105 MA's), (106, 6392), (147, 6560), (191, 6770), (192, 6779),

Gene: Eileen\_5 Start: 5037, Stop: 5534, Start Num: 69

Candidate Starts for Eileen\_5:

(Start: 69 @5037 has 13 MA's), (173, 5496),

Gene: Ekdilam\_9 Start: 6928, Stop: 7482, Start Num: 57

Candidate Starts for Ekdilam\_9:

(Start: 57 @6928 has 136 MA's), (147, 7249), (186, 7438), (191, 7456), (192, 7465),

Gene: Elfy\_5 Start: 4192, Stop: 4650, Start Num: 80

Candidate Starts for Elfy\_5:

(Start: 80 @4192 has 2 MA's), (127, 4444), (152, 4495),

Gene: Ellie\_9 Start: 7015, Stop: 7581, Start Num: 57

Candidate Starts for Ellie\_9:

(Start: 57 @7015 has 136 MA's), (147, 7348), (191, 7555), (192, 7564),

Gene: Ellson\_8 Start: 5554, Stop: 6153, Start Num: 57

Candidate Starts for Ellson\_8:

(Start: 57 @5554 has 136 MA's), (111, 5740), (121, 5815), (158, 5962), (174, 6052),

Gene: Emerson\_12 Start: 7316, Stop: 7858, Start Num: 56

Candidate Starts for Emerson\_12:

(Start: 56 @7316 has 105 MA's), (106, 7451), (147, 7619), (186, 7814), (191, 7832), (192, 7841),

Gene: Emmaloid\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Emmaloid\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: EnalisNailo\_5 Start: 4604, Stop: 5260, Start Num: 32

Candidate Starts for EnalisNailo\_5:

(Start: 25 @4577 has 2 MA's), (Start: 32 @4604 has 15 MA's), (Start: 36 @4613 has 1 MA's), (Start: 47 @4637 has 1 MA's), (66, 4679), (67, 4682), (116, 4928),

Gene: Enby\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Enby\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Enceladus\_7 Start: 5431, Stop: 6042, Start Num: 57

Candidate Starts for Enceladus\_7:

(Start: 41 @5404 has 3 MA's), (Start: 57 @5431 has 136 MA's), (132, 5746), (134, 5752), (142, 5776), (174, 5950), (183, 5989),

Gene: EniyanLRS\_26 Start: 11965, Stop: 12621, Start Num: 35

Candidate Starts for EniyanLRS\_26:

(Start: 35 @11965 has 26 MA's), (89, 12067), (94, 12115), (106, 12160), (118, 12262), (120, 12274), (150, 12373), (153, 12382), (168, 12466), (185, 12565),

Gene: Enkosi\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Enkosi\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: Eponine\_13 Start: 8420, Stop: 8992, Start Num: 57

Candidate Starts for Eponine\_13:

(11, 8240), (Start: 57 @8420 has 136 MA's), (129, 8708), (147, 8753),

Gene: Estes\_22 Start: 9832, Stop: 10506, Start Num: 35

Candidate Starts for Estes\_22:

(Start: 35 @9832 has 26 MA's), (100, 10009), (114, 10099), (137, 10207),

Gene: Ezurina\_6 Start: 4583, Stop: 5089, Start Num: 63  
Candidate Starts for Ezurina\_6:  
(Start: 63 @4583 has 11 MA's), (112, 4769), (132, 4862), (141, 4880),

Gene: FF47\_08 Start: 5790, Stop: 6386, Start Num: 40  
Candidate Starts for FF47\_08:  
(Start: 40 @5790 has 2 MA's), (85, 5913), (123, 6132), (136, 6171),

Gene: Faith1\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for Faith1\_7:  
(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743),  
(142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Farewell\_5 Start: 4759, Stop: 5304, Start Num: 57  
Candidate Starts for Farewell\_5:  
(Start: 57 @4759 has 136 MA's), (91, 4870), (93, 4879), (152, 5128), (156, 5164), (170, 5236),

Gene: FarmResident\_7 Start: 5136, Stop: 5750, Start Num: 57  
Candidate Starts for FarmResident\_7:  
(Start: 57 @5136 has 136 MA's), (83, 5205), (94, 5262), (142, 5478), (145, 5484), (174, 5655), (184,  
5700),

Gene: Fefferhead\_11 Start: 7185, Stop: 7748, Start Num: 57  
Candidate Starts for Fefferhead\_11:  
(Start: 57 @7185 has 136 MA's), (147, 7515), (191, 7722), (192, 7731),

Gene: Feyre\_10 Start: 7278, Stop: 7802, Start Num: 72  
Candidate Starts for Feyre\_10:  
(Start: 28 @7173 has 4 MA's), (Start: 43 @7212 has 1 MA's), (Start: 64 @7257 has 4 MA's), (Start: 72  
@7278 has 3 MA's), (Start: 75 @7293 has 13 MA's), (81, 7305), (147, 7578),

Gene: Findley\_8 Start: 5349, Stop: 5891, Start Num: 57  
Candidate Starts for Findley\_8:  
(Start: 57 @5349 has 136 MA's), (135, 5652), (147, 5670), (191, 5865),

Gene: Finemlucis\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for Finemlucis\_7:  
(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743),  
(142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Finnry\_8 Start: 5539, Stop: 6138, Start Num: 57  
Candidate Starts for Finnry\_8:  
(Start: 57 @5539 has 136 MA's), (111, 5725), (121, 5800), (127, 5821), (158, 5947), (174, 6037),

Gene: Fionnbharth\_13 Start: 8534, Stop: 9106, Start Num: 57  
Candidate Starts for Fionnbharth\_13:  
(Start: 57 @8534 has 136 MA's), (129, 8822), (147, 8867),

Gene: Flathead\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Flathead\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Floral\_5 Start: 4604, Stop: 5260, Start Num: 32

Candidate Starts for Floral\_5:

(Start: 25 @4577 has 2 MA's), (Start: 32 @4604 has 15 MA's), (Start: 36 @4613 has 1 MA's), (Start: 47 @4637 has 1 MA's), (66, 4679), (67, 4682), (116, 4928),

Gene: FosterFrank\_5 Start: 5039, Stop: 5533, Start Num: 69

Candidate Starts for FosterFrank\_5:

(31, 4961), (Start: 50 @5003 has 1 MA's), (Start: 69 @5039 has 13 MA's), (173, 5495),

Gene: Frankie\_6 Start: 4602, Stop: 5138, Start Num: 61

Candidate Starts for Frankie\_6:

(Start: 61 @4602 has 61 MA's), (115, 4824), (132, 4893), (135, 4902), (166, 5004), (192, 5121),

Gene: FreakyGoo\_18 Start: 9093, Stop: 9809, Start Num: 35

Candidate Starts for FreakyGoo\_18:

(18, 9006), (Start: 30 @9075 has 2 MA's), (Start: 35 @9093 has 26 MA's), (94, 9288), (107, 9342), (114, 9399), (133, 9498), (138, 9510), (140, 9519), (164, 9624),

Gene: Frickyeah\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for Frickyeah\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: Fryberger\_38 Start: 13725, Stop: 14291, Start Num: 82

Candidate Starts for Fryberger\_38:

(39, 13608), (Start: 82 @13725 has 5 MA's), (104, 13833), (154, 14055), (162, 14115), (180, 14226),

Gene: Gabriela\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Gabriela\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Ganymede\_12 Start: 7333, Stop: 7875, Start Num: 56

Candidate Starts for Ganymede\_12:

(Start: 56 @7333 has 105 MA's), (106, 7468), (147, 7636), (186, 7831), (191, 7849), (192, 7858),

Gene: Gardann\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Gardann\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: GardenSalsa\_21 Start: 9666, Stop: 10340, Start Num: 35

Candidate Starts for GardenSalsa\_21:

(Start: 35 @9666 has 26 MA's), (100, 9843), (114, 9933), (137, 10041),

Gene: GenevaB15\_21 Start: 9693, Stop: 10367, Start Num: 35

Candidate Starts for GenevaB15\_21:

(Start: 35 @9693 has 26 MA's), (100, 9870), (114, 9960), (124, 10023), (137, 10068),

Gene: Gengar\_10 Start: 7279, Stop: 7908, Start Num: 28

Candidate Starts for Gengar\_10:

(Start: 28 @7279 has 4 MA's), (Start: 43 @7318 has 1 MA's), (Start: 64 @7363 has 4 MA's), (Start: 72 @7384 has 3 MA's), (Start: 75 @7399 has 13 MA's), (81, 7411), (147, 7684),

Gene: Geraldini\_12 Start: 7339, Stop: 7875, Start Num: 56

Candidate Starts for Geraldini\_12:

(Start: 56 @7339 has 105 MA's), (106, 7468), (147, 7636), (186, 7831), (191, 7849), (192, 7858),

Gene: Gerri43\_7 Start: 4967, Stop: 5473, Start Num: 63

Candidate Starts for Gerri43\_7:

(Start: 63 @4967 has 11 MA's), (112, 5153), (132, 5246),

Gene: Getalong\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for Getalong\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: Girafales\_6 Start: 4403, Stop: 4939, Start Num: 61

Candidate Starts for Girafales\_6:

(Start: 61 @4403 has 61 MA's), (132, 4694), (135, 4703), (192, 4922),

Gene: Glaske16\_18 Start: 9092, Stop: 9808, Start Num: 35

Candidate Starts for Glaske16\_18:

(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: GlobiWarming\_5 Start: 5032, Stop: 5529, Start Num: 69

Candidate Starts for GlobiWarming\_5:

(19, 4891), (Start: 20 @4900 has 1 MA's), (Start: 69 @5032 has 13 MA's), (173, 5491),

Gene: GrimEater\_5 Start: 4179, Stop: 4631, Start Num: 86

Candidate Starts for GrimEater\_5:

(Start: 86 @4179 has 2 MA's), (130, 4410),

Gene: Guanica15\_12 Start: 6279, Stop: 6812, Start Num: 56

Candidate Starts for Guanica15\_12:

(53, 6273), (Start: 56 @6279 has 105 MA's), (106, 6408), (147, 6576), (191, 6786), (192, 6795),

Gene: Guey18\_43 Start: 14918, Stop: 15484, Start Num: 82

Candidate Starts for Guey18\_43:

(39, 14801), (Start: 82 @14918 has 5 MA's), (104, 15026), (154, 15248), (162, 15308), (180, 15419),

Gene: Guillsminger\_10 Start: 7293, Stop: 7883, Start Num: 43

Candidate Starts for Guillsminger\_10:

(Start: 28 @7254 has 4 MA's), (Start: 43 @7293 has 1 MA's), (Start: 64 @7338 has 4 MA's), (Start: 72 @7359 has 3 MA's), (Start: 75 @7374 has 13 MA's), (81, 7386), (147, 7659),

Gene: GuuelaD\_7 Start: 5462, Stop: 6061, Start Num: 57

Candidate Starts for GuuelaD\_7:

(48, 5447), (Start: 57 @5462 has 136 MA's), (99, 5597), (135, 5780), (142, 5801), (160, 5888), (174, 5969), (183, 6008),

Gene: Hafay\_7 Start: 5455, Stop: 6060, Start Num: 57

Candidate Starts for Hafay\_7:

(Start: 41 @5428 has 3 MA's), (49, 5440), (Start: 57 @5455 has 136 MA's), (99, 5593), (135, 5776), (142, 5797), (160, 5884), (174, 5965), (183, 6004),

Gene: Halena\_7 Start: 5430, Stop: 6041, Start Num: 57

Candidate Starts for Halena\_7:

(Start: 41 @5403 has 3 MA's), (Start: 57 @5430 has 136 MA's), (132, 5745), (134, 5751), (142, 5775), (174, 5949), (183, 5988),

Gene: Hammy\_11 Start: 7195, Stop: 7752, Start Num: 57

Candidate Starts for Hammy\_11:

(Start: 47 @7177 has 1 MA's), (Start: 57 @7195 has 136 MA's), (147, 7519), (186, 7708), (192, 7735),

Gene: HedwigODU\_12 Start: 7313, Stop: 7855, Start Num: 56

Candidate Starts for HedwigODU\_12:

(Start: 56 @7313 has 105 MA's), (106, 7448), (147, 7616), (186, 7811), (191, 7829), (192, 7838),

Gene: Heftyboy\_10 Start: 7501, Stop: 8010, Start Num: 75

Candidate Starts for Heftyboy\_10:

(Start: 28 @7381 has 4 MA's), (Start: 43 @7420 has 1 MA's), (Start: 64 @7465 has 4 MA's), (Start: 72 @7486 has 3 MA's), (Start: 75 @7501 has 13 MA's), (81, 7513), (147, 7786),

Gene: Hegedechwinu\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Hegedechwinu\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (135, 4708), (166, 4810), (192, 4927),

Gene: Henrique\_5 Start: 5037, Stop: 5531, Start Num: 69

Candidate Starts for Henrique\_5:

(Start: 69 @5037 has 13 MA's), (157, 5418), (173, 5493),

Gene: Holliday\_6 Start: 4294, Stop: 4875, Start Num: 60

Candidate Starts for Holliday\_6:

(3, 3985), (4, 4027), (7, 4060), (10, 4096), (14, 4120), (17, 4141), (Start: 60 @4294 has 3 MA's), (Start: 71 @4327 has 16 MA's), (105, 4480), (157, 4723), (172, 4786),

Gene: Homura\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Homura\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Horus\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for Horus\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: HotPotato\_5 Start: 5037, Stop: 5534, Start Num: 69

Candidate Starts for HotPotato\_5:

(Start: 69 @5037 has 13 MA's), (130, 5316), (173, 5496),

Gene: Hurricane\_11 Start: 7335, Stop: 7883, Start Num: 73

Candidate Starts for Hurricane\_11:

(16, 7140), (Start: 62 @7299 has 3 MA's), (Start: 73 @7335 has 6 MA's), (103, 7461), (115, 7545), (147, 7647), (192, 7866),

Gene: Hyperbowlee\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Hyperbowlee\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: IPHane7\_17 Start: 9093, Stop: 9809, Start Num: 35

Candidate Starts for IPHane7\_17:

(18, 9006), (Start: 30 @9075 has 2 MA's), (Start: 35 @9093 has 26 MA's), (94, 9288), (107, 9342), (114, 9399), (133, 9498), (138, 9510), (140, 9519), (164, 9624),

Gene: Illumine\_12 Start: 7321, Stop: 7854, Start Num: 56

Candidate Starts for Illumine\_12:

(Start: 56 @7321 has 105 MA's), (106, 7447), (147, 7615), (191, 7828), (192, 7837),

Gene: Inky\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Inky\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: InvictusManeo\_10 Start: 7500, Stop: 8030, Start Num: 75

Candidate Starts for InvictusManeo\_10:

(23, 7356), (Start: 28 @7377 has 4 MA's), (Start: 64 @7464 has 4 MA's), (Start: 72 @7485 has 3 MA's), (Start: 75 @7500 has 13 MA's), (81, 7512), (147, 7797),

Gene: Itos\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Itos\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Izel\_18 Start: 9092, Stop: 9808, Start Num: 35

Candidate Starts for Izel\_18:

(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: JAWS\_12 Start: 7310, Stop: 7852, Start Num: 56

Candidate Starts for JAWS\_12:

(Start: 56 @7310 has 105 MA's), (106, 7445), (147, 7613), (186, 7808), (191, 7826), (192, 7835),

Gene: JF1\_13 Start: 8533, Stop: 9105, Start Num: 57

Candidate Starts for JF1\_13:

(Start: 57 @8533 has 136 MA's), (129, 8821), (147, 8866),

Gene: Jabbawokkie\_7 Start: 4830, Stop: 5378, Start Num: 68

Candidate Starts for Jabbawokkie\_7:

(2, 4407), (4, 4539), (12, 4614), (15, 4650), (22, 4713), (Start: 68 @4830 has 10 MA's), (93, 4935), (100, 4959), (128, 5118), (172, 5283),

Gene: Jablanski\_5 Start: 4451, Stop: 5107, Start Num: 32

Candidate Starts for Jablanski\_5:

(Start: 25 @4424 has 2 MA's), (Start: 32 @4451 has 15 MA's), (Start: 36 @4460 has 1 MA's), (Start: 47 @4484 has 1 MA's), (66, 4526), (67, 4529), (116, 4775),

Gene: JacoRen57\_5 Start: 4850, Stop: 5443, Start Num: 52

Candidate Starts for JacoRen57\_5:

(Start: 52 @4850 has 1 MA's), (98, 5021), (103, 5042), (108, 5072), (143, 5234), (163, 5324),

Gene: JalFarm20\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for JalFarm20\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Jankie\_5 Start: 4178, Stop: 4630, Start Num: 86

Candidate Starts for Jankie\_5:  
(Start: 86 @4178 has 2 MA's), (130, 4409),

Gene: Jarvi\_12 Start: 7357, Stop: 7899, Start Num: 56  
Candidate Starts for Jarvi\_12:  
(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Jayhawk\_12 Start: 7314, Stop: 7856, Start Num: 57  
Candidate Starts for Jayhawk\_12:  
(13, 7131), (Start: 57 @7314 has 136 MA's), (106, 7449), (147, 7617), (186, 7812), (191, 7830), (192, 7839),

Gene: Jeckyll\_12 Start: 7357, Stop: 7899, Start Num: 56  
Candidate Starts for Jeckyll\_12:  
(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Job42\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Job42\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (147, 4726), (157, 4786), (166, 4810), (192, 4927),

Gene: Jobypre\_8 Start: 5542, Stop: 6141, Start Num: 57  
Candidate Starts for Jobypre\_8:  
(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: JoeDirt\_7 Start: 5430, Stop: 6041, Start Num: 57  
Candidate Starts for JoeDirt\_7:  
(Start: 41 @5403 has 3 MA's), (Start: 57 @5430 has 136 MA's), (132, 5745), (134, 5751), (142, 5775), (174, 5949), (183, 5988),

Gene: Joy99\_12 Start: 7289, Stop: 7825, Start Num: 56  
Candidate Starts for Joy99\_12:  
(Start: 56 @7289 has 105 MA's), (106, 7418), (147, 7586), (186, 7781), (191, 7799), (192, 7808),

Gene: Jubie\_8 Start: 5542, Stop: 6141, Start Num: 57  
Candidate Starts for Jubie\_8:  
(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: Judy\_5 Start: 5076, Stop: 5573, Start Num: 69  
Candidate Starts for Judy\_5:  
(Start: 69 @5076 has 13 MA's), (173, 5535),

Gene: Juice456\_6 Start: 4409, Stop: 4945, Start Num: 61  
Candidate Starts for Juice456\_6:  
(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: Juliette\_13 Start: 8420, Stop: 8992, Start Num: 57  
Candidate Starts for Juliette\_13:  
(11, 8240), (Start: 57 @8420 has 136 MA's), (129, 8708), (147, 8753),

Gene: Kahlid\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for Kahlid\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Kamaru\_6 Start: 4327, Stop: 4875, Start Num: 71

Candidate Starts for Kamaru\_6:

(3, 3985), (4, 4027), (7, 4060), (10, 4096), (14, 4120), (17, 4141), (Start: 60 @4294 has 3 MA's), (Start: 71 @4327 has 16 MA's), (105, 4480), (157, 4723), (172, 4786),

Gene: Karkharias\_5 Start: 5037, Stop: 5531, Start Num: 69

Candidate Starts for Karkharias\_5:

(Start: 69 @5037 has 13 MA's), (157, 5418), (173, 5493),

Gene: KayMoney\_5 Start: 5037, Stop: 5531, Start Num: 69

Candidate Starts for KayMoney\_5:

(Start: 69 @5037 has 13 MA's), (173, 5493),

Gene: Keelan\_36 Start: 13692, Stop: 14267, Start Num: 74

Candidate Starts for Keelan\_36:

(Start: 74 @13692 has 1 MA's), (104, 13821), (130, 13965), (144, 14007), (154, 14043), (162, 14103), (167, 14124), (189, 14247), (190, 14253),

Gene: Kenna\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for Kenna\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: Keshu\_11 Start: 7324, Stop: 7872, Start Num: 73

Candidate Starts for Keshu\_11:

(Start: 73 @7324 has 6 MA's), (93, 7417), (147, 7636), (192, 7855),

Gene: KiSi\_11 Start: 6171, Stop: 6728, Start Num: 56

Candidate Starts for KiSi\_11:

(Start: 56 @6171 has 105 MA's), (186, 6684), (191, 6702), (192, 6711),

Gene: Kimberlium\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Kimberlium\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: Kingsley\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Kingsley\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Kingsolomon\_8 Start: 5542, Stop: 6141, Start Num: 57

Candidate Starts for Kingsolomon\_8:

(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: KirDoubleO7\_6 Start: 5554, Stop: 6153, Start Num: 57

Candidate Starts for KirDoubleO7\_6:

(Start: 57 @5554 has 136 MA's), (111, 5740), (121, 5815), (158, 5962), (174, 6052),

Gene: KleverKiS\_17 Start: 9089, Stop: 9805, Start Num: 35

Candidate Starts for KleverKiS\_17:

(18, 9002), (Start: 30 @9071 has 2 MA's), (Start: 35 @9089 has 26 MA's), (94, 9284), (107, 9338), (114, 9395), (133, 9494), (138, 9506), (140, 9515), (164, 9620),

Gene: Kratio\_9 Start: 7091, Stop: 7657, Start Num: 64

Candidate Starts for Kratio\_9:

(Start: 64 @7091 has 4 MA's), (Start: 72 @7112 has 3 MA's), (Start: 75 @7127 has 13 MA's), (81, 7139), (147, 7424),

Gene: Kraw\_13 Start: 8453, Stop: 9025, Start Num: 57

Candidate Starts for Kraw\_13:

(Start: 57 @8453 has 136 MA's), (129, 8741), (147, 8786),

Gene: Kropertea\_7 Start: 5089, Stop: 5700, Start Num: 57

Candidate Starts for Kropertea\_7:

(Start: 57 @5089 has 136 MA's), (99, 5230), (127, 5386), (142, 5434), (174, 5602), (184, 5647), (193, 5692),

Gene: Krueger\_11 Start: 6185, Stop: 6796, Start Num: 36

Candidate Starts for Krueger\_11:

(Start: 36 @6185 has 1 MA's), (Start: 57 @6224 has 136 MA's), (127, 6512), (147, 6563), (155, 6602), (191, 6770), (192, 6779),

Gene: Krypton555\_8 Start: 5533, Stop: 6132, Start Num: 57

Candidate Starts for Krypton555\_8:

(Start: 57 @5533 has 136 MA's), (111, 5719), (121, 5794), (158, 5941), (174, 6031),

Gene: Kudrefre\_15 Start: 8967, Stop: 9623, Start Num: 27

Candidate Starts for Kudrefre\_15:

(Start: 20 @8925 has 1 MA's), (Start: 27 @8967 has 1 MA's), (33, 8988), (Start: 34 @8991 has 4 MA's), (44, 9015), (88, 9141), (114, 9285), (119, 9324), (139, 9393), (148, 9423), (152, 9435), (158, 9483), (159, 9489), (181, 9603), (182, 9606),

Gene: Kumao\_16 Start: 8489, Stop: 9151, Start Num: 35

Candidate Starts for Kumao\_16:

(Start: 35 @8489 has 26 MA's), (65, 8540),

Gene: Larva\_10 Start: 7222, Stop: 7788, Start Num: 64

Candidate Starts for Larva\_10:

(Start: 64 @7222 has 4 MA's), (Start: 72 @7243 has 3 MA's), (Start: 75 @7258 has 13 MA's), (81, 7270), (147, 7555),

Gene: LastHope\_12 Start: 6334, Stop: 6882, Start Num: 55

Candidate Starts for LastHope\_12:

(Start: 55 @6334 has 2 MA's), (106, 6484), (147, 6652), (155, 6691), (186, 6838), (191, 6856), (192, 6865),

Gene: LastNadiia\_10 Start: 7336, Stop: 7845, Start Num: 63

Candidate Starts for LastNadiia\_10:

(Start: 63 @7336 has 11 MA's),

Gene: LaterM\_12 Start: 7280, Stop: 7822, Start Num: 56

Candidate Starts for LaterM\_12:

(Start: 56 @7280 has 105 MA's), (106, 7415), (147, 7583), (191, 7796), (192, 7805),

Gene: Lavahound\_10 Start: 6944, Stop: 7507, Start Num: 57

Candidate Starts for Lavahound\_10:

(Start: 57 @6944 has 136 MA's), (147, 7274), (191, 7481), (192, 7490),

Gene: LeBron\_7 Start: 5403, Stop: 6041, Start Num: 41

Candidate Starts for LeBron\_7:

(Start: 41 @5403 has 3 MA's), (Start: 57 @5430 has 136 MA's), (132, 5745), (134, 5751), (142, 5775), (174, 5949), (183, 5988),

Gene: LeMond\_11 Start: 6171, Stop: 6728, Start Num: 56

Candidate Starts for LeMond\_11:

(Start: 56 @6171 has 105 MA's), (186, 6684), (191, 6702), (192, 6711),

Gene: Lea83\_11 Start: 7326, Stop: 7874, Start Num: 73

Candidate Starts for Lea83\_11:

(Start: 62 @7290 has 3 MA's), (Start: 73 @7326 has 6 MA's), (131, 7602), (147, 7638), (192, 7857),

Gene: Lebo14\_13 Start: 8547, Stop: 9119, Start Num: 57

Candidate Starts for Lebo14\_13:

(Start: 57 @8547 has 136 MA's), (129, 8835), (147, 8880),

Gene: Leozinho\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Leozinho\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Leroy\_6 Start: 4328, Stop: 4879, Start Num: 71

Candidate Starts for Leroy\_6:

(Start: 71 @4328 has 16 MA's), (90, 4409), (105, 4481), (172, 4787),

Gene: Leston\_10 Start: 7384, Stop: 8013, Start Num: 28

Candidate Starts for Leston\_10:

(Start: 28 @7384 has 4 MA's), (Start: 43 @7423 has 1 MA's), (Start: 64 @7468 has 4 MA's), (Start: 72 @7489 has 3 MA's), (Start: 75 @7504 has 13 MA's), (81, 7516), (147, 7789),

Gene: Lewan\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Lewan\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: LilDestine\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for LilDestine\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: LilDirt\_9 Start: 7257, Stop: 7787, Start Num: 75

Candidate Starts for LilDirt\_9:

(Start: 64 @7221 has 4 MA's), (Start: 72 @7242 has 3 MA's), (Start: 75 @7257 has 13 MA's), (81, 7269), (147, 7554),

Gene: LilJank\_15 Start: 8880, Stop: 9503, Start Num: 34

Candidate Starts for LilJank\_15:

(29, 8868), (Start: 34 @8880 has 4 MA's), (54, 8919), (Start: 76 @8976 has 1 MA's), (87, 9021), (97, 9072), (101, 9087), (119, 9201), (121, 9213), (134, 9258), (152, 9312), (158, 9360), (160, 9369), (176, 9465), (182, 9486),

Gene: LilPharaoh\_8 Start: 6589, Stop: 7137, Start Num: 56  
Candidate Starts for LilPharaoh\_8:  
(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: Lilas\_5 Start: 4604, Stop: 5260, Start Num: 32  
Candidate Starts for Lilas\_5:  
(Start: 25 @4577 has 2 MA's), (Start: 32 @4604 has 15 MA's), (Start: 36 @4613 has 1 MA's), (Start: 47 @4637 has 1 MA's), (66, 4679), (67, 4682), (116, 4928),

Gene: LilhomieP\_16 Start: 9093, Stop: 9809, Start Num: 35  
Candidate Starts for LilhomieP\_16:  
(18, 9006), (Start: 30 @9075 has 2 MA's), (Start: 35 @9093 has 26 MA's), (94, 9288), (107, 9342), (114, 9399), (133, 9498), (138, 9510), (140, 9519), (164, 9624),

Gene: LilyBell\_5 Start: 5052, Stop: 5546, Start Num: 69  
Candidate Starts for LilyBell\_5:  
(Start: 69 @5052 has 13 MA's), (173, 5508),

Gene: LindNT\_12 Start: 7280, Stop: 7822, Start Num: 56  
Candidate Starts for LindNT\_12:  
(Start: 56 @7280 has 105 MA's), (106, 7415), (147, 7583), (186, 7778), (191, 7796), (192, 7805),

Gene: LisoBros\_5 Start: 4378, Stop: 4854, Start Num: 80  
Candidate Starts for LisoBros\_5:  
(Start: 80 @4378 has 2 MA's), (130, 4636), (147, 4669),

Gene: LitninMcQueen\_6 Start: 4327, Stop: 4875, Start Num: 71  
Candidate Starts for LitninMcQueen\_6:  
(3, 3985), (4, 4027), (7, 4060), (10, 4096), (14, 4120), (17, 4141), (Start: 60 @4294 has 3 MA's), (Start: 71 @4327 has 16 MA's), (105, 4480), (157, 4723), (172, 4786),

Gene: LittleRon\_5 Start: 5037, Stop: 5531, Start Num: 69  
Candidate Starts for LittleRon\_5:  
(Start: 69 @5037 has 13 MA's), (173, 5493),

Gene: LittleShirley\_6 Start: 4409, Stop: 4945, Start Num: 61  
Candidate Starts for LittleShirley\_6:  
(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: LiyuLake\_8 Start: 5545, Stop: 6144, Start Num: 57  
Candidate Starts for LiyuLake\_8:  
(Start: 57 @5545 has 136 MA's), (111, 5731), (121, 5806), (158, 5953), (174, 6043),

Gene: Llorens\_12 Start: 7357, Stop: 7899, Start Num: 56  
Candidate Starts for Llorens\_12:  
(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Loadrie\_7 Start: 5455, Stop: 6060, Start Num: 57  
Candidate Starts for Loadrie\_7:  
(Start: 41 @5428 has 3 MA's), (49, 5440), (Start: 57 @5455 has 136 MA's), (99, 5593), (135, 5776), (142, 5797), (160, 5884), (174, 5965), (183, 6004),

Gene: Lolly9\_8 Start: 5548, Stop: 6147, Start Num: 57  
Candidate Starts for Lolly9\_8:  
(Start: 57 @5548 has 136 MA's), (111, 5734), (121, 5809), (158, 5956), (174, 6046),

Gene: LonelyBoi\_5 Start: 4451, Stop: 5107, Start Num: 32  
Candidate Starts for LonelyBoi\_5:  
(Start: 25 @4424 has 2 MA's), (Start: 32 @4451 has 15 MA's), (Start: 36 @4460 has 1 MA's), (Start: 47 @4484 has 1 MA's), (66, 4526), (67, 4529), (116, 4775),

Gene: LongHai\_9 Start: 6114, Stop: 6710, Start Num: 40  
Candidate Starts for LongHai\_9:  
(Start: 40 @6114 has 2 MA's), (85, 6237), (98, 6306), (123, 6456), (136, 6495),

Gene: LordVader\_7 Start: 4404, Stop: 4940, Start Num: 61  
Candidate Starts for LordVader\_7:  
(Start: 61 @4404 has 61 MA's), (108, 4572), (115, 4626), (132, 4695), (135, 4704), (166, 4806), (192, 4923),

Gene: Lorde\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Lorde\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Lucia\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Lucia\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Lumos\_8 Start: 5542, Stop: 6141, Start Num: 57  
Candidate Starts for Lumos\_8:  
(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: Lunahalos\_12 Start: 7357, Stop: 7899, Start Num: 56  
Candidate Starts for Lunahalos\_12:  
(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Lutum\_6 Start: 4327, Stop: 4878, Start Num: 71  
Candidate Starts for Lutum\_6:  
(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: Lynnae\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for Lynnae\_7:  
(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: MAckerman\_7 Start: 5429, Stop: 6040, Start Num: 57  
Candidate Starts for MAckerman\_7:  
(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: MacKat\_12 Start: 7333, Stop: 7875, Start Num: 56  
Candidate Starts for MacKat\_12:  
(Start: 56 @7333 has 105 MA's), (106, 7468), (147, 7636), (186, 7831), (191, 7849), (192, 7858),

Gene: MacnCheese\_12 Start: 7513, Stop: 8091, Start Num: 62

Candidate Starts for MacnCheese\_12:

(Start: 62 @7513 has 3 MA's), (Start: 73 @7549 has 6 MA's), (93, 7633), (147, 7852), (192, 8074),

Gene: Maco6\_6 Start: 5069, Stop: 5665, Start Num: 40

Candidate Starts for Maco6\_6:

(Start: 40 @5069 has 2 MA's), (85, 5192), (123, 5411), (136, 5450),

Gene: Madiba\_6 Start: 4407, Stop: 4943, Start Num: 61

Candidate Starts for Madiba\_6:

(Start: 61 @4407 has 61 MA's), (115, 4629), (132, 4698), (135, 4707), (147, 4725), (157, 4785), (166, 4809), (192, 4926),

Gene: Makima\_8 Start: 6454, Stop: 6963, Start Num: 63

Candidate Starts for Makima\_8:

(58, 6439), (Start: 63 @6454 has 11 MA's), (147, 6757),

Gene: Malisha\_6 Start: 5305, Stop: 5919, Start Num: 47

Candidate Starts for Malisha\_6:

(Start: 47 @5305 has 1 MA's), (Start: 71 @5359 has 16 MA's), (93, 5458), (100, 5482), (146, 5695), (161, 5773), (165, 5794), (172, 5824),

Gene: Malthus\_13 Start: 8453, Stop: 9025, Start Num: 57

Candidate Starts for Malthus\_13:

(Start: 57 @8453 has 136 MA's), (129, 8741), (147, 8786),

Gene: Marcoliusprime\_8 Start: 5349, Stop: 5891, Start Num: 57

Candidate Starts for Marcoliusprime\_8:

(Start: 57 @5349 has 136 MA's), (135, 5652), (147, 5670), (191, 5865),

Gene: MarkPhew\_11 Start: 6090, Stop: 6629, Start Num: 56

Candidate Starts for MarkPhew\_11:

(Start: 56 @6090 has 105 MA's), (127, 6342), (131, 6357), (186, 6585), (191, 6603), (192, 6612),

Gene: Marker\_6 Start: 4407, Stop: 4943, Start Num: 61

Candidate Starts for Marker\_6:

(Start: 61 @4407 has 61 MA's), (115, 4629), (132, 4698), (135, 4707), (147, 4725), (157, 4785), (166, 4809), (192, 4926),

Gene: Marshawn\_13 Start: 6726, Stop: 7280, Start Num: 56

Candidate Starts for Marshawn\_13:

(Start: 56 @6726 has 105 MA's), (106, 6876), (131, 7008), (186, 7236), (191, 7254),

Gene: Marteena\_5 Start: 4604, Stop: 5260, Start Num: 32

Candidate Starts for Marteena\_5:

(Start: 25 @4577 has 2 MA's), (Start: 32 @4604 has 15 MA's), (Start: 36 @4613 has 1 MA's), (Start: 47 @4637 has 1 MA's), (66, 4679), (67, 4682), (116, 4928),

Gene: MaryV\_29 Start: 12237, Stop: 12893, Start Num: 35

Candidate Starts for MaryV\_29:

(Start: 35 @12237 has 26 MA's), (89, 12339), (94, 12387), (106, 12432), (118, 12534), (120, 12546), (150, 12645), (153, 12654), (168, 12738), (185, 12837),

Gene: McMater\_12 Start: 6370, Stop: 6936, Start Num: 53

Candidate Starts for McMater\_12:

(53, 6370), (Start: 56 @6376 has 105 MA's), (106, 6532), (147, 6700), (191, 6910),

Gene: Mdavu\_8 Start: 6577, Stop: 7125, Start Num: 56

Candidate Starts for Mdavu\_8:

(Start: 56 @6577 has 105 MA's), (147, 6892), (186, 7081), (191, 7099),

Gene: MeaningOfLife\_12 Start: 7286, Stop: 7828, Start Num: 56

Candidate Starts for MeaningOfLife\_12:

(Start: 56 @7286 has 105 MA's), (106, 7421), (147, 7589), (186, 7784), (191, 7802), (192, 7811),

Gene: Megsy\_12 Start: 7283, Stop: 7825, Start Num: 56

Candidate Starts for Megsy\_12:

(Start: 56 @7283 has 105 MA's), (106, 7418), (147, 7586), (186, 7781), (191, 7799), (192, 7808),

Gene: Miley16\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Miley16\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Milly\_8 Start: 5349, Stop: 5891, Start Num: 57

Candidate Starts for Milly\_8:

(Start: 57 @5349 has 136 MA's), (135, 5652), (147, 5670), (191, 5865),

Gene: MiniLon\_8 Start: 5548, Stop: 6147, Start Num: 57

Candidate Starts for MiniLon\_8:

(Start: 57 @5548 has 136 MA's), (111, 5734), (121, 5809), (158, 5956), (174, 6046),

Gene: MiniMac\_8 Start: 5548, Stop: 6147, Start Num: 57

Candidate Starts for MiniMac\_8:

(Start: 57 @5548 has 136 MA's), (111, 5734), (121, 5809), (158, 5956), (174, 6046),

Gene: Mireles\_7 Start: 4860, Stop: 5363, Start Num: 63

Candidate Starts for Mireles\_7:

(58, 4845), (Start: 63 @4860 has 11 MA's), (132, 5136), (187, 5331),

Gene: Miryou\_10 Start: 7374, Stop: 7883, Start Num: 75

Candidate Starts for Miryou\_10:

(Start: 28 @7254 has 4 MA's), (Start: 43 @7293 has 1 MA's), (Start: 64 @7338 has 4 MA's), (Start: 72 @7359 has 3 MA's), (Start: 75 @7374 has 13 MA's), (81, 7386), (147, 7659),

Gene: Misha28\_6 Start: 4412, Stop: 4948, Start Num: 61

Candidate Starts for Misha28\_6:

(Start: 61 @4412 has 61 MA's), (115, 4634), (132, 4703), (135, 4712), (147, 4730), (166, 4814), (192, 4931),

Gene: MissDaisy\_13 Start: 8319, Stop: 8891, Start Num: 57

Candidate Starts for MissDaisy\_13:

(Start: 57 @8319 has 136 MA's), (129, 8607), (147, 8652),

Gene: Mitti\_13 Start: 8457, Stop: 9029, Start Num: 57

Candidate Starts for Mitti\_13:

(Start: 57 @8457 has 136 MA's), (129, 8745), (147, 8790),

Gene: MkaliMitinis3\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for MkaliMitinis3\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Moostard\_8 Start: 5538, Stop: 6137, Start Num: 57

Candidate Starts for Moostard\_8:

(Start: 57 @5538 has 136 MA's), (111, 5724), (121, 5799), (127, 5820), (158, 5946), (174, 6036),

Gene: Mova\_6 Start: 4410, Stop: 4946, Start Num: 61

Candidate Starts for Mova\_6:

(Start: 61 @4410 has 61 MA's), (115, 4632), (132, 4701), (135, 4710), (147, 4728), (166, 4812), (192, 4929),

Gene: Mozy\_6 Start: 4405, Stop: 4941, Start Num: 61

Candidate Starts for Mozy\_6:

(Start: 61 @4405 has 61 MA's), (132, 4696), (135, 4705), (192, 4924),

Gene: MrMagoo\_21 Start: 9666, Stop: 10340, Start Num: 35

Candidate Starts for MrMagoo\_21:

(Start: 35 @9666 has 26 MA's), (100, 9843), (114, 9933), (137, 10041),

Gene: MsGreen\_8 Start: 5542, Stop: 6141, Start Num: 57

Candidate Starts for MsGreen\_8:

(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: Muddy\_8 Start: 6022, Stop: 6618, Start Num: 40

Candidate Starts for Muddy\_8:

(Start: 40 @6022 has 2 MA's), (85, 6145), (123, 6364), (136, 6403),

Gene: Mufasa\_8 Start: 5333, Stop: 5878, Start Num: 57

Candidate Starts for Mufasa\_8:

(Start: 57 @5333 has 136 MA's), (135, 5636), (147, 5654), (191, 5852),

Gene: MulchExplorer\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for MulchExplorer\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: Murucutumbu\_12 Start: 7273, Stop: 7815, Start Num: 56

Candidate Starts for Murucutumbu\_12:

(Start: 56 @7273 has 105 MA's), (106, 7408), (147, 7576), (191, 7789), (192, 7798),

Gene: Mynx\_12 Start: 7336, Stop: 7878, Start Num: 56

Candidate Starts for Mynx\_12:

(Start: 56 @7336 has 105 MA's), (106, 7471), (147, 7639), (186, 7834), (191, 7852), (192, 7861),

Gene: Nanosmite\_21 Start: 9886, Stop: 10557, Start Num: 35

Candidate Starts for Nanosmite\_21:

(Start: 35 @9886 has 26 MA's), (54, 9913), (94, 10039), (100, 10060), (107, 10093), (114, 10150), (120, 10201),

Gene: Neighly\_10 Start: 7242, Stop: 7787, Start Num: 72

Candidate Starts for Neighly\_10:

(Start: 64 @7221 has 4 MA's), (Start: 72 @7242 has 3 MA's), (Start: 75 @7257 has 13 MA's), (81, 7269), (147, 7554),

Gene: Netyap\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Netyap\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Neuville\_7 Start: 4967, Stop: 5473, Start Num: 63

Candidate Starts for Neuville\_7:

(Start: 63 @4967 has 11 MA's), (112, 5153), (132, 5246),

Gene: Neville\_15 Start: 8829, Stop: 9452, Start Num: 34

Candidate Starts for Neville\_15:

(21, 8778), (29, 8817), (Start: 34 @8829 has 4 MA's), (54, 8868), (Start: 76 @8925 has 1 MA's), (87, 8970), (97, 9021), (101, 9036), (119, 9150), (121, 9162), (134, 9207), (152, 9261), (158, 9309), (160, 9318), (176, 9414), (182, 9435),

Gene: Nibb\_11 Start: 6227, Stop: 6772, Start Num: 56

Candidate Starts for Nibb\_11:

(Start: 56 @6227 has 105 MA's), (155, 6572), (186, 6728), (191, 6746), (192, 6755),

Gene: Nicholas\_8 Start: 5542, Stop: 6141, Start Num: 57

Candidate Starts for Nicholas\_8:

(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: Nicholasp3\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Nicholasp3\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: NidoQ\_5 Start: 5094, Stop: 5591, Start Num: 69

Candidate Starts for NidoQ\_5:

(Start: 69 @5094 has 13 MA's), (173, 5553),

Gene: Nikao\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Nikao\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: NikkiHotWheels\_5 Start: 5034, Stop: 5531, Start Num: 69

Candidate Starts for NikkiHotWheels\_5:

(Start: 69 @5034 has 13 MA's), (173, 5493),

Gene: Niklas\_12 Start: 6376, Stop: 6936, Start Num: 56

Candidate Starts for Niklas\_12:

(53, 6370), (Start: 56 @6376 has 105 MA's), (106, 6532), (147, 6700), (191, 6910),

Gene: NoShow\_6 Start: 5050, Stop: 5676, Start Num: 38

Candidate Starts for NoShow\_6:

(Start: 38 @5050 has 1 MA's), (102, 5263), (126, 5422), (151, 5479), (155, 5506),

Gene: November\_10 Start: 7032, Stop: 7598, Start Num: 57

Candidate Starts for November\_10:

(Start: 57 @7032 has 136 MA's), (131, 7326), (147, 7362), (191, 7572), (192, 7581),

Gene: Nutello\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Nutello\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: ODay\_6 Start: 4340, Stop: 4900, Start Num: 68

Candidate Starts for ODay\_6:

(Start: 68 @4340 has 10 MA's), (100, 4481), (163, 4766), (172, 4805),

Gene: Octobien14\_16 Start: 10060, Stop: 10689, Start Num: 34

Candidate Starts for Octobien14\_16:

(21, 10003), (Start: 27 @10036 has 1 MA's), (33, 10057), (Start: 34 @10060 has 4 MA's), (44, 10084), (78, 10168), (108, 10306), (114, 10351), (152, 10501), (158, 10549), (159, 10555), (177, 10657), (182, 10672),

Gene: Ogotopogo\_7 Start: 4568, Stop: 5116, Start Num: 68

Candidate Starts for Ogotopogo\_7:

(2, 4145), (4, 4277), (12, 4352), (15, 4388), (22, 4451), (Start: 68 @4568 has 10 MA's), (93, 4673), (100, 4697), (128, 4856), (172, 5021),

Gene: OhShagHennessy\_7 Start: 5403, Stop: 6014, Start Num: 57

Candidate Starts for OhShagHennessy\_7:

(Start: 41 @5376 has 3 MA's), (Start: 57 @5403 has 136 MA's), (132, 5718), (134, 5724), (142, 5748), (174, 5922), (183, 5961),

Gene: OkiRoe\_10 Start: 7360, Stop: 7884, Start Num: 72

Candidate Starts for OkiRoe\_10:

(Start: 28 @7255 has 4 MA's), (Start: 43 @7294 has 1 MA's), (Start: 64 @7339 has 4 MA's), (Start: 72 @7360 has 3 MA's), (Start: 75 @7375 has 13 MA's), (81, 7387), (147, 7660),

Gene: Oksu\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Oksu\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: OmniCritical\_13 Start: 8444, Stop: 9016, Start Num: 57

Candidate Starts for OmniCritical\_13:

(Start: 57 @8444 has 136 MA's), (129, 8732), (147, 8777),

Gene: Omnicron\_10 Start: 6242, Stop: 6898, Start Num: 28

Candidate Starts for Omnicron\_10:

(Start: 28 @6242 has 4 MA's), (Start: 43 @6281 has 1 MA's), (65, 6329), (Start: 76 @6365 has 1 MA's), (81, 6377), (147, 6665), (191, 6872),

Gene: Oscar\_11 Start: 6172, Stop: 6729, Start Num: 56

Candidate Starts for Oscar\_11:

(Start: 56 @6172 has 105 MA's), (186, 6685), (191, 6703), (192, 6712),

Gene: OverPar\_7 Start: 5455, Stop: 6060, Start Num: 57

Candidate Starts for OverPar\_7:

(Start: 41 @5428 has 3 MA's), (49, 5440), (Start: 57 @5455 has 136 MA's), (99, 5593), (135, 5776), (142, 5797), (160, 5884), (174, 5965), (183, 6004),

Gene: OwlsT2W\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for OwlsT2W\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: PYPDinur\_7 Start: 5097, Stop: 5705, Start Num: 57  
Candidate Starts for PYPDinur\_7:  
(Start: 57 @5097 has 136 MA's), (83, 5169), (94, 5226), (142, 5442), (174, 5610), (184, 5655),

Gene: Padfoot\_12 Start: 7357, Stop: 7899, Start Num: 56  
Candidate Starts for Padfoot\_12:  
(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Padpat\_12 Start: 7316, Stop: 7858, Start Num: 56  
Candidate Starts for Padpat\_12:  
(Start: 56 @7316 has 105 MA's), (106, 7451), (147, 7619), (186, 7814), (191, 7832), (192, 7841),

Gene: Paola\_10 Start: 7359, Stop: 7883, Start Num: 72  
Candidate Starts for Paola\_10:  
(Start: 28 @7254 has 4 MA's), (Start: 43 @7293 has 1 MA's), (Start: 64 @7338 has 4 MA's), (Start: 72 @7359 has 3 MA's), (Start: 75 @7374 has 13 MA's), (81, 7386), (147, 7659),

Gene: Patt\_13 Start: 8295, Stop: 8867, Start Num: 57  
Candidate Starts for Patt\_13:  
(Start: 57 @8295 has 136 MA's), (129, 8583), (147, 8628),

Gene: Peanam\_12 Start: 6376, Stop: 6936, Start Num: 56  
Candidate Starts for Peanam\_12:  
(53, 6370), (Start: 56 @6376 has 105 MA's), (106, 6532), (147, 6700), (191, 6910),

Gene: Peas\_5 Start: 5037, Stop: 5534, Start Num: 69  
Candidate Starts for Peas\_5:  
(Start: 69 @5037 has 13 MA's), (173, 5496),

Gene: Peel\_12 Start: 7357, Stop: 7899, Start Num: 56  
Candidate Starts for Peel\_12:  
(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: PegLeg\_17 Start: 9074, Stop: 9808, Start Num: 30  
Candidate Starts for PegLeg\_17:  
(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: PeggyLeg03\_5 Start: 5077, Stop: 5574, Start Num: 69  
Candidate Starts for PeggyLeg03\_5:  
(Start: 69 @5077 has 13 MA's), (173, 5536),

Gene: Peridot\_6 Start: 4409, Stop: 4945, Start Num: 61  
Candidate Starts for Peridot\_6:  
(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: Periwinkle\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for Periwinkle\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: Phabuloso\_6 Start: 4327, Stop: 4875, Start Num: 71

Candidate Starts for Phabuloso\_6:

(3, 3985), (4, 4027), (7, 4060), (10, 4096), (14, 4120), (17, 4141), (Start: 60 @4294 has 3 MA's), (Start: 71 @4327 has 16 MA's), (105, 4480), (157, 4723), (172, 4786),

Gene: Pharb\_11 Start: 7169, Stop: 7717, Start Num: 73

Candidate Starts for Pharb\_11:

(Start: 40 @7088 has 2 MA's), (42, 7094), (Start: 73 @7169 has 6 MA's), (79, 7184), (147, 7481), (192, 7700),

Gene: PhelpsODU\_11 Start: 6278, Stop: 6850, Start Num: 57

Candidate Starts for PhelpsODU\_11:

(9, 6080), (37, 6236), (Start: 57 @6278 has 136 MA's), (147, 6617), (155, 6656), (186, 6806), (191, 6824),

Gene: Phistory\_6 Start: 4325, Stop: 4867, Start Num: 71

Candidate Starts for Phistory\_6:

(3, 3986), (4, 4028), (5, 4034), (7, 4061), (8, 4067), (14, 4121), (17, 4142), (Start: 60 @4295 has 3 MA's), (Start: 71 @4325 has 16 MA's), (105, 4469), (114, 4541), (150, 4661), (172, 4775),

Gene: Phrank\_11 Start: 6234, Stop: 6800, Start Num: 57

Candidate Starts for Phrank\_11:

(Start: 57 @6234 has 136 MA's), (147, 6567), (155, 6606), (192, 6783),

Gene: Piatt\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Piatt\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Piper2020\_6 Start: 4411, Stop: 4947, Start Num: 61

Candidate Starts for Piper2020\_6:

(Start: 61 @4411 has 61 MA's), (115, 4633), (132, 4702), (135, 4711), (147, 4729), (166, 4813), (192, 4930),

Gene: Pisa1\_11 Start: 7079, Stop: 7612, Start Num: 56

Candidate Starts for Pisa1\_11:

(Start: 56 @7079 has 105 MA's), (106, 7208), (147, 7376), (191, 7586), (192, 7595),

Gene: Pisa4\_11 Start: 7079, Stop: 7612, Start Num: 56

Candidate Starts for Pisa4\_11:

(Start: 56 @7079 has 105 MA's), (106, 7208), (147, 7376), (191, 7586), (192, 7595),

Gene: Pitbull\_5 Start: 3934, Stop: 4455, Start Num: 70

Candidate Starts for Pitbull\_5:

(Start: 70 @3934 has 1 MA's), (113, 4144), (115, 4165),

Gene: Pixie\_11 Start: 7042, Stop: 7626, Start Num: 62

Candidate Starts for Pixie\_11:

(Start: 62 @7042 has 3 MA's), (Start: 73 @7078 has 6 MA's), (131, 7354), (147, 7390), (192, 7609),

Gene: Plumbus\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Plumbus\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: Pokerus\_11 Start: 7270, Stop: 7812, Start Num: 56

Candidate Starts for Pokerus\_11:

(Start: 56 @7270 has 105 MA's), (106, 7405), (147, 7573), (186, 7768), (191, 7786), (192, 7795),

Gene: Pollux\_5 Start: 4577, Stop: 5260, Start Num: 25

Candidate Starts for Pollux\_5:

(Start: 25 @4577 has 2 MA's), (Start: 32 @4604 has 15 MA's), (Start: 36 @4613 has 1 MA's), (Start: 47 @4637 has 1 MA's), (66, 4679), (67, 4682), (116, 4928),

Gene: Pollywog\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Pollywog\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (147, 4726), (166, 4810), (192, 4927),

Gene: Poochiewood\_7 Start: 5429, Stop: 6040, Start Num: 57

Candidate Starts for Poochiewood\_7:

(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: Posh\_5 Start: 4598, Stop: 5254, Start Num: 32

Candidate Starts for Posh\_5:

(Start: 25 @4571 has 2 MA's), (Start: 32 @4598 has 15 MA's), (Start: 36 @4607 has 1 MA's), (Start: 47 @4631 has 1 MA's), (66, 4673), (67, 4676), (116, 4922),

Gene: Prithvi\_12 Start: 7280, Stop: 7822, Start Num: 56

Candidate Starts for Prithvi\_12:

(Start: 56 @7280 has 105 MA's), (106, 7415), (147, 7583), (186, 7778), (191, 7796), (192, 7805),

Gene: Psycho\_10 Start: 7388, Stop: 7918, Start Num: 75

Candidate Starts for Psycho\_10:

(Start: 64 @7352 has 4 MA's), (Start: 72 @7373 has 3 MA's), (Start: 75 @7388 has 13 MA's), (81, 7400), (147, 7685),

Gene: Pucara\_5 Start: 5039, Stop: 5533, Start Num: 69

Candidate Starts for Pucara\_5:

(Start: 69 @5039 has 13 MA's), (130, 5318), (173, 5495),

Gene: Pytheas\_5 Start: 4451, Stop: 5107, Start Num: 32

Candidate Starts for Pytheas\_5:

(Start: 25 @4424 has 2 MA's), (Start: 32 @4451 has 15 MA's), (Start: 36 @4460 has 1 MA's), (Start: 47 @4484 has 1 MA's), (66, 4526), (67, 4529), (116, 4775),

Gene: Qhanda\_13 Start: 8553, Stop: 9125, Start Num: 57

Candidate Starts for Qhanda\_13:

(Start: 57 @8553 has 136 MA's), (129, 8841), (147, 8886),

Gene: Quby\_7 Start: 5096, Stop: 5704, Start Num: 57

Candidate Starts for Quby\_7:

(Start: 41 @5069 has 3 MA's), (Start: 57 @5096 has 136 MA's), (83, 5168), (94, 5225), (142, 5441), (145, 5447), (174, 5609), (184, 5654),

Gene: Quico\_6 Start: 4403, Stop: 4939, Start Num: 61  
Candidate Starts for Quico\_6:  
(Start: 61 @4403 has 61 MA's), (132, 4694), (135, 4703), (192, 4922),

Gene: QuincyRose\_11 Start: 7333, Stop: 7875, Start Num: 56  
Candidate Starts for QuincyRose\_11:  
(Start: 56 @7333 has 105 MA's), (106, 7468), (147, 7636), (186, 7831), (191, 7849), (192, 7858),

Gene: Rabbitrun\_17 Start: 9317, Stop: 9976, Start Num: 24  
Candidate Starts for Rabbitrun\_17:  
(Start: 24 @9317 has 1 MA's), (29, 9335), (Start: 34 @9347 has 4 MA's), (97, 9545), (101, 9560), (119, 9674), (134, 9731), (152, 9785), (158, 9833), (160, 9842), (178, 9944),

Gene: Ramen\_12 Start: 7313, Stop: 7855, Start Num: 56  
Candidate Starts for Ramen\_12:  
(Start: 56 @7313 has 105 MA's), (106, 7448), (147, 7616), (186, 7811), (191, 7829), (192, 7838),

Gene: Ramsey\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for Ramsey\_6:  
(Start: 61 @4408 has 61 MA's), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Rando14\_10 Start: 6393, Stop: 6926, Start Num: 76  
Candidate Starts for Rando14\_10:  
(65, 6357), (Start: 76 @6393 has 1 MA's), (81, 6405), (147, 6693), (157, 6753), (191, 6900),

Gene: Rapunzel97\_12 Start: 7314, Stop: 7856, Start Num: 57  
Candidate Starts for Rapunzel97\_12:  
(13, 7131), (Start: 57 @7314 has 136 MA's), (106, 7449), (147, 7617), (186, 7812), (191, 7830), (192, 7839),

Gene: Red305\_8 Start: 5542, Stop: 6141, Start Num: 57  
Candidate Starts for Red305\_8:  
(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: Reindeer\_15 Start: 8937, Stop: 9662, Start Num: 30  
Candidate Starts for Reindeer\_15:  
(18, 8868), (Start: 30 @8937 has 2 MA's), (Start: 35 @8955 has 26 MA's), (93, 9138), (94, 9141), (100, 9162), (107, 9195), (114, 9252), (133, 9351), (138, 9363), (164, 9477),

Gene: Reptar3000\_13 Start: 8297, Stop: 8869, Start Num: 57  
Candidate Starts for Reptar3000\_13:  
(Start: 57 @8297 has 136 MA's), (129, 8585), (147, 8630),

Gene: Rey\_21 Start: 9898, Stop: 10575, Start Num: 35  
Candidate Starts for Rey\_21:  
(Start: 35 @9898 has 26 MA's), (114, 10165), (133, 10264),

Gene: Rialto\_6 Start: 4409, Stop: 4945, Start Num: 61  
Candidate Starts for Rialto\_6:  
(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: Richo\_12 Start: 6370, Stop: 6936, Start Num: 53  
Candidate Starts for Richo\_12:  
(53, 6370), (Start: 56 @6376 has 105 MA's), (106, 6532), (147, 6700), (191, 6910),

Gene: Roberts\_7 Start: 4967, Stop: 5473, Start Num: 63  
Candidate Starts for Roberts\_7:  
(Start: 63 @4967 has 11 MA's), (112, 5153), (132, 5246),

Gene: RockyHorror\_6 Start: 4408, Stop: 4944, Start Num: 61  
Candidate Starts for RockyHorror\_6:  
(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Ronaldo\_41 Start: 14655, Stop: 15221, Start Num: 82  
Candidate Starts for Ronaldo\_41:  
(39, 14538), (Start: 82 @14655 has 5 MA's), (104, 14763), (154, 14985), (162, 15045), (180, 15156),

Gene: Rose5\_7 Start: 5429, Stop: 6040, Start Num: 57  
Candidate Starts for Rose5\_7:  
(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774),  
(174, 5948), (183, 5987),

Gene: RoseMarie\_17 Start: 9337, Stop: 10053, Start Num: 35  
Candidate Starts for RoseMarie\_17:  
(18, 9250), (Start: 30 @9319 has 2 MA's), (Start: 35 @9337 has 26 MA's), (93, 9529), (100, 9553),  
(107, 9586), (114, 9643), (133, 9742), (169, 9901),

Gene: Rosmarinus\_12 Start: 7345, Stop: 7887, Start Num: 56  
Candidate Starts for Rosmarinus\_12:  
(Start: 56 @7345 has 105 MA's), (106, 7480), (147, 7648), (186, 7843), (191, 7861), (192, 7870),

Gene: Rossetti\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for Rossetti\_7:  
(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743),  
(142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Rumpelstiltskin\_7 Start: 5422, Stop: 6027, Start Num: 57  
Candidate Starts for Rumpelstiltskin\_7:  
(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743),  
(142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Ruthiejr\_12 Start: 8151, Stop: 8723, Start Num: 57  
Candidate Starts for Ruthiejr\_12:  
(11, 7971), (Start: 57 @8151 has 136 MA's), (129, 8439), (147, 8484),

Gene: Salvus\_9 Start: 6114, Stop: 6710, Start Num: 40  
Candidate Starts for Salvus\_9:  
(Start: 40 @6114 has 2 MA's), (85, 6237), (98, 6306), (123, 6456), (136, 6495),

Gene: SamScheppers\_11 Start: 8060, Stop: 8632, Start Num: 57  
Candidate Starts for SamScheppers\_11:  
(Start: 57 @8060 has 136 MA's), (129, 8348), (147, 8393),

Gene: Samty\_8 Start: 5538, Stop: 6137, Start Num: 57

Candidate Starts for Samty\_8:

(Start: 57 @5538 has 136 MA's), (111, 5724), (121, 5799), (127, 5820), (158, 5946), (174, 6036),

Gene: SamuelLPlaqson\_12 Start: 7263, Stop: 7805, Start Num: 56

Candidate Starts for SamuelLPlaqson\_12:

(Start: 56 @7263 has 105 MA's), (106, 7398), (147, 7566), (186, 7761), (191, 7779), (192, 7788),

Gene: Sarma624\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Sarma624\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Sarshaun\_7 Start: 5455, Stop: 6060, Start Num: 57

Candidate Starts for Sarshaun\_7:

(Start: 41 @5428 has 3 MA's), (49, 5440), (Start: 57 @5455 has 136 MA's), (99, 5593), (135, 5776), (142, 5797), (160, 5884), (174, 5965), (183, 6004),

Gene: Scarlett\_11 Start: 6171, Stop: 6728, Start Num: 56

Candidate Starts for Scarlett\_11:

(Start: 56 @6171 has 105 MA's), (186, 6684), (191, 6702), (192, 6711),

Gene: Seagreen\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Seagreen\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: Sephiroth\_16 Start: 9096, Stop: 9794, Start Num: 20

Candidate Starts for Sephiroth\_16:

(Start: 20 @9096 has 1 MA's), (Start: 27 @9138 has 1 MA's), (33, 9159), (Start: 34 @9162 has 4 MA's), (44, 9186), (88, 9312), (114, 9456), (119, 9495), (139, 9564), (152, 9606), (158, 9654), (159, 9660), (181, 9774), (182, 9777),

Gene: SgtBeansprout\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for SgtBeansprout\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: Shadow1\_10 Start: 6145, Stop: 6711, Start Num: 57

Candidate Starts for Shadow1\_10:

(Start: 57 @6145 has 136 MA's), (155, 6517), (192, 6694),

Gene: Shaobing\_12 Start: 6376, Stop: 6936, Start Num: 56

Candidate Starts for Shaobing\_12:

(53, 6370), (Start: 56 @6376 has 105 MA's), (106, 6532), (147, 6700), (191, 6910),

Gene: ShawBrad\_6 Start: 4327, Stop: 4875, Start Num: 71

Candidate Starts for ShawBrad\_6:

(Start: 71 @4327 has 16 MA's), (105, 4480), (157, 4723), (172, 4786),

Gene: ShedlockHolmes\_11 Start: 7290, Stop: 7874, Start Num: 62

Candidate Starts for ShedlockHolmes\_11:

(Start: 62 @7290 has 3 MA's), (Start: 73 @7326 has 6 MA's), (131, 7602), (147, 7638), (192, 7857),

Gene: Sheng711\_7 Start: 5097, Stop: 5705, Start Num: 57

Candidate Starts for Sheng711\_7:

(Start: 57 @5097 has 136 MA's), (83, 5169), (94, 5226), (142, 5442), (174, 5610), (184, 5655),

Gene: ShiaSurprise\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for ShiaSurprise\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: SilverChicken\_6 Start: 4307, Stop: 4855, Start Num: 68

Candidate Starts for SilverChicken\_6:

(26, 4205), (Start: 68 @4307 has 10 MA's), (93, 4412), (100, 4436), (128, 4595), (172, 4760),

Gene: Silverleaf\_7 Start: 5429, Stop: 6040, Start Num: 57

Candidate Starts for Silverleaf\_7:

(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: SimranZ1\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for SimranZ1\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: SirPhilip\_11 Start: 6046, Stop: 6564, Start Num: 77

Candidate Starts for SirPhilip\_11:

(Start: 77 @6046 has 1 MA's), (106, 6163), (188, 6529), (191, 6538), (192, 6547),

Gene: Skinny\_18 Start: 9093, Stop: 9809, Start Num: 35

Candidate Starts for Skinny\_18:

(Start: 30 @9075 has 2 MA's), (Start: 35 @9093 has 26 MA's), (94, 9288), (107, 9342), (114, 9399), (133, 9498), (138, 9510), (140, 9519), (164, 9624),

Gene: Slarp\_13 Start: 8544, Stop: 9116, Start Num: 57

Candidate Starts for Slarp\_13:

(Start: 57 @8544 has 136 MA's), (129, 8832), (147, 8877),

Gene: Slim\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Slim\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: SlimJimmy\_16 Start: 9092, Stop: 9808, Start Num: 35

Candidate Starts for SlimJimmy\_16:

(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: Slimphazie\_12 Start: 7314, Stop: 7856, Start Num: 57

Candidate Starts for Slimphazie\_12:

(13, 7131), (Start: 57 @7314 has 136 MA's), (106, 7449), (147, 7617), (186, 7812), (191, 7830), (192, 7839),

Gene: Snenia\_8 Start: 5542, Stop: 6141, Start Num: 57

Candidate Starts for Snenia\_8:

(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: SoJulia\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for SoJulia\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: SoSeph\_10 Start: 7501, Stop: 8010, Start Num: 75

Candidate Starts for SoSeph\_10:

(Start: 28 @7381 has 4 MA's), (Start: 43 @7420 has 1 MA's), (Start: 64 @7465 has 4 MA's), (Start: 72 @7486 has 3 MA's), (Start: 75 @7501 has 13 MA's), (81, 7513), (147, 7786),

Gene: Soap141\_7 Start: 5455, Stop: 6060, Start Num: 57

Candidate Starts for Soap141\_7:

(Start: 41 @5428 has 3 MA's), (49, 5440), (Start: 57 @5455 has 136 MA's), (99, 5593), (135, 5776), (142, 5797), (160, 5884), (174, 5965), (183, 6004),

Gene: Soul22\_6 Start: 4306, Stop: 4854, Start Num: 68

Candidate Starts for Soul22\_6:

(2, 3883), (4, 4015), (6, 4039), (12, 4090), (15, 4126), (22, 4189), (Start: 68 @4306 has 10 MA's), (93, 4411), (100, 4435), (128, 4594), (172, 4759),

Gene: Sparky\_5 Start: 4760, Stop: 5305, Start Num: 57

Candidate Starts for Sparky\_5:

(Start: 57 @4760 has 136 MA's), (91, 4871), (93, 4880), (152, 5129), (156, 5165), (170, 5237),

Gene: Spartoi\_5 Start: 4178, Stop: 4681, Start Num: 64

Candidate Starts for Spartoi\_5:

(Start: 64 @4178 has 4 MA's), (179, 4622),

Gene: Spikelee\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Spikelee\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: Spock\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Spock\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Spooky\_6 Start: 4301, Stop: 4870, Start Num: 60

Candidate Starts for Spooky\_6:

(Start: 60 @4301 has 3 MA's), (Start: 71 @4331 has 16 MA's), (105, 4472), (109, 4502), (122, 4589), (172, 4778),

Gene: Squiddly\_7 Start: 4994, Stop: 5563, Start Num: 60

Candidate Starts for Squiddly\_7:

(Start: 60 @4994 has 3 MA's), (Start: 71 @5024 has 16 MA's), (96, 5129), (105, 5165), (109, 5195), (161, 5420), (172, 5471),

Gene: Squirty\_6 Start: 4407, Stop: 4943, Start Num: 61

Candidate Starts for Squirty\_6:

(Start: 61 @4407 has 61 MA's), (115, 4629), (132, 4698), (135, 4707), (166, 4809), (192, 4926),

Gene: Stap\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Stap\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Starcevich\_6 Start: 4409, Stop: 4945, Start Num: 61  
Candidate Starts for Starcevich\_6:  
(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: Stinson\_12 Start: 7285, Stop: 7827, Start Num: 56  
Candidate Starts for Stinson\_12:  
(Start: 56 @7285 has 105 MA's), (106, 7420), (147, 7588), (191, 7801), (192, 7810),

Gene: Strobilo\_8 Start: 5349, Stop: 5891, Start Num: 57  
Candidate Starts for Strobilo\_8:  
(Start: 57 @5349 has 136 MA's), (135, 5652), (147, 5670), (191, 5865),

Gene: Studio\_7 Start: 4771, Stop: 5280, Start Num: 63  
Candidate Starts for Studio\_7:  
(Start: 28 @4687 has 4 MA's), (Start: 63 @4771 has 11 MA's), (94, 4876), (112, 4957),

Gene: Sulley\_12 Start: 7292, Stop: 7825, Start Num: 56  
Candidate Starts for Sulley\_12:  
(Start: 56 @7292 has 105 MA's), (106, 7421), (191, 7799), (192, 7808),

Gene: Sunflower1121\_10 Start: 6147, Stop: 6722, Start Num: 57  
Candidate Starts for Sunflower1121\_10:  
(Start: 57 @6147 has 136 MA's), (147, 6489), (155, 6528), (192, 6705),

Gene: Syleon\_16 Start: 9084, Stop: 9716, Start Num: 34  
Candidate Starts for Syleon\_16:  
(Start: 20 @9018 has 1 MA's), (Start: 27 @9060 has 1 MA's), (33, 9081), (Start: 34 @9084 has 4 MA's), (44, 9108), (88, 9234), (114, 9378), (119, 9417), (139, 9486), (148, 9516), (152, 9528), (158, 9576), (159, 9582), (181, 9696), (182, 9699),

Gene: Syra333\_11 Start: 6243, Stop: 6815, Start Num: 57  
Candidate Starts for Syra333\_11:  
(Start: 57 @6243 has 136 MA's), (127, 6531), (147, 6582), (155, 6621), (191, 6789), (192, 6798),

Gene: TBond007\_11 Start: 7077, Stop: 7625, Start Num: 73  
Candidate Starts for TBond007\_11:  
(Start: 62 @7041 has 3 MA's), (Start: 73 @7077 has 6 MA's), (131, 7353), (147, 7389), (192, 7608),

Gene: TClif\_11 Start: 6257, Stop: 6814, Start Num: 59  
Candidate Starts for TClif\_11:  
(Start: 59 @6257 has 1 MA's), (Start: 71 @6290 has 16 MA's), (147, 6581), (192, 6797),

Gene: TM4\_8 Start: 5384, Stop: 5944, Start Num: 50  
Candidate Starts for TM4\_8:  
(Start: 50 @5384 has 1 MA's), (95, 5516), (135, 5702), (147, 5720), (191, 5918),

Gene: TMaxx\_7 Start: 4931, Stop: 5440, Start Num: 63  
Candidate Starts for TMaxx\_7:  
(Start: 63 @4931 has 11 MA's), (112, 5117), (119, 5162),

Gene: Tachez\_12 Start: 7279, Stop: 7821, Start Num: 56  
Candidate Starts for Tachez\_12:

(Start: 56 @7279 has 105 MA's), (106, 7414), (147, 7582), (186, 7777), (191, 7795), (192, 7804),

Gene: TaiwanKao\_12 Start: 7286, Stop: 7828, Start Num: 56

Candidate Starts for TaiwanKao\_12:

(Start: 56 @7286 has 105 MA's), (106, 7421), (147, 7589), (186, 7784), (191, 7802), (192, 7811),

Gene: Taquito\_11 Start: 8133, Stop: 8702, Start Num: 57

Candidate Starts for Taquito\_11:

(Start: 57 @8133 has 136 MA's), (129, 8418), (147, 8463),

Gene: Tchotchke\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Tchotchke\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (166, 4811), (192, 4928),

Gene: Teejan\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Teejan\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: Thyatira\_10 Start: 7374, Stop: 7883, Start Num: 75

Candidate Starts for Thyatira\_10:

(Start: 28 @7254 has 4 MA's), (Start: 43 @7293 has 1 MA's), (Start: 64 @7338 has 4 MA's), (Start: 72 @7359 has 3 MA's), (Start: 75 @7374 has 13 MA's), (81, 7386), (147, 7659),

Gene: Tierra\_11 Start: 6942, Stop: 7514, Start Num: 57

Candidate Starts for Tierra\_11:

(9, 6744), (37, 6900), (Start: 57 @6942 has 136 MA's), (147, 7281), (155, 7320), (186, 7470), (191, 7488),

Gene: Tigress9\_11 Start: 6224, Stop: 6796, Start Num: 57

Candidate Starts for Tigress9\_11:

(Start: 36 @6185 has 1 MA's), (Start: 57 @6224 has 136 MA's), (127, 6512), (147, 6563), (155, 6602), (191, 6770), (192, 6779),

Gene: TingHuaYa\_12 Start: 6338, Stop: 6886, Start Num: 55

Candidate Starts for TingHuaYa\_12:

(Start: 55 @6338 has 2 MA's), (106, 6488), (147, 6656), (155, 6695), (186, 6842), (191, 6860), (192, 6869),

Gene: TiniBug\_12 Start: 7263, Stop: 7805, Start Num: 56

Candidate Starts for TiniBug\_12:

(Start: 56 @7263 has 105 MA's), (106, 7398), (147, 7566), (186, 7761), (191, 7779), (192, 7788),

Gene: Tiri\_12 Start: 7324, Stop: 7866, Start Num: 56

Candidate Starts for Tiri\_12:

(Start: 56 @7324 has 105 MA's), (106, 7459), (147, 7627), (186, 7822), (191, 7840), (192, 7849),

Gene: TootsiePop\_6 Start: 4412, Stop: 4948, Start Num: 61

Candidate Starts for TootsiePop\_6:

(Start: 61 @4412 has 61 MA's), (115, 4634), (132, 4703), (135, 4712), (147, 4730), (166, 4814), (192, 4931),

Gene: Tootsieroll\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Tootsieroll\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Topper\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Topper\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Torres\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Torres\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: Totinger\_6 Start: 4409, Stop: 4945, Start Num: 61

Candidate Starts for Totinger\_6:

(Start: 61 @4409 has 61 MA's), (115, 4631), (132, 4700), (135, 4709), (147, 4727), (166, 4811), (192, 4928),

Gene: Tourach\_7 Start: 5433, Stop: 6041, Start Num: 57

Candidate Starts for Tourach\_7:

(Start: 57 @5433 has 136 MA's), (99, 5577), (135, 5760), (142, 5781), (160, 5868), (174, 5949), (183, 5988),

Gene: TpudiCK\_18 Start: 9092, Stop: 9808, Start Num: 35

Candidate Starts for TpudiCK\_18:

(18, 9005), (Start: 30 @9074 has 2 MA's), (Start: 35 @9092 has 26 MA's), (94, 9287), (107, 9341), (114, 9398), (133, 9497), (138, 9509), (140, 9518), (164, 9623),

Gene: Trax\_15 Start: 8829, Stop: 9452, Start Num: 34

Candidate Starts for Trax\_15:

(29, 8817), (Start: 34 @8829 has 4 MA's), (54, 8868), (Start: 76 @8925 has 1 MA's), (87, 8970), (97, 9021), (101, 9036), (119, 9150), (121, 9162), (134, 9207), (152, 9261), (158, 9309), (160, 9318), (176, 9414), (182, 9435),

Gene: TreyKay\_12 Start: 7280, Stop: 7822, Start Num: 56

Candidate Starts for TreyKay\_12:

(Start: 56 @7280 has 105 MA's), (106, 7415), (147, 7583), (186, 7778), (191, 7796), (192, 7805),

Gene: TriFive\_8 Start: 5542, Stop: 6141, Start Num: 57

Candidate Starts for TriFive\_8:

(Start: 57 @5542 has 136 MA's), (111, 5728), (121, 5803), (127, 5824), (158, 5950), (174, 6040),

Gene: TribelTrouble\_10 Start: 7121, Stop: 7663, Start Num: 73

Candidate Starts for TribelTrouble\_10:

(16, 6923), (Start: 62 @7085 has 3 MA's), (Start: 73 @7121 has 6 MA's), (103, 7238),

Gene: Trice\_8 Start: 6589, Stop: 7137, Start Num: 56

Candidate Starts for Trice\_8:

(Start: 56 @6589 has 105 MA's), (147, 6904), (186, 7093), (191, 7111),

Gene: TripleC\_10 Start: 8397, Stop: 8909, Start Num: 63

Candidate Starts for TripleC\_10:

(Start: 63 @8397 has 11 MA's),

Gene: TruffulaTree\_12 Start: 7310, Stop: 7852, Start Num: 56

Candidate Starts for TruffulaTree\_12:

(Start: 56 @7310 has 105 MA's), (106, 7445), (147, 7613), (186, 7808), (191, 7826), (192, 7835),

Gene: Twitch\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Twitch\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: TyDawg\_17 Start: 9093, Stop: 9809, Start Num: 35

Candidate Starts for TyDawg\_17:

(18, 9006), (Start: 30 @9075 has 2 MA's), (Start: 35 @9093 has 26 MA's), (94, 9288), (107, 9342), (114, 9399), (133, 9498), (138, 9510), (140, 9519), (164, 9624),

Gene: Tyson\_7 Start: 5402, Stop: 6040, Start Num: 41

Candidate Starts for Tyson\_7:

(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: UPIE\_7 Start: 5400, Stop: 6038, Start Num: 41

Candidate Starts for UPIE\_7:

(Start: 41 @5400 has 3 MA's), (Start: 57 @5427 has 136 MA's), (132, 5742), (134, 5748), (142, 5772), (174, 5946), (183, 5985),

Gene: UncleRicky\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for UncleRicky\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Underpass\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Underpass\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Unicorn\_11 Start: 6278, Stop: 6850, Start Num: 57

Candidate Starts for Unicorn\_11:

(9, 6080), (37, 6236), (Start: 57 @6278 has 136 MA's), (147, 6617), (155, 6656), (186, 6806), (191, 6824),

Gene: Urkel\_12 Start: 7263, Stop: 7805, Start Num: 56

Candidate Starts for Urkel\_12:

(Start: 56 @7263 has 105 MA's), (106, 7398), (147, 7566), (186, 7761), (191, 7779), (192, 7788),

Gene: Validus\_12 Start: 6293, Stop: 6850, Start Num: 56

Candidate Starts for Validus\_12:

(Start: 56 @6293 has 105 MA's), (106, 6446), (147, 6614), (191, 6824),

Gene: Veliki\_12 Start: 7357, Stop: 7899, Start Num: 56

Candidate Starts for Veliki\_12:

(Start: 56 @7357 has 105 MA's), (106, 7492), (147, 7660), (186, 7855), (191, 7873), (192, 7882),

Gene: Velveteen\_6 Start: 4408, Stop: 4944, Start Num: 61

Candidate Starts for Velveteen\_6:

(Start: 61 @4408 has 61 MA's), (115, 4630), (132, 4699), (135, 4708), (166, 4810), (192, 4927),

Gene: Vetrrix\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Vetrrix\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: ViviJ\_9 Start: 7257, Stop: 7787, Start Num: 75

Candidate Starts for ViviJ\_9:

(Start: 64 @7221 has 4 MA's), (Start: 72 @7242 has 3 MA's), (Start: 75 @7257 has 13 MA's), (81, 7269), (147, 7554),

Gene: Volt\_40 Start: 14655, Stop: 15221, Start Num: 82

Candidate Starts for Volt\_40:

(39, 14538), (Start: 82 @14655 has 5 MA's), (104, 14763), (154, 14985), (162, 15045), (180, 15156),

Gene: Wamburgexpress\_7 Start: 5429, Stop: 6040, Start Num: 57

Candidate Starts for Wamburgexpress\_7:

(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: Waterfoul\_10 Start: 7396, Stop: 7905, Start Num: 75

Candidate Starts for Waterfoul\_10:

(Start: 28 @7276 has 4 MA's), (Start: 43 @7315 has 1 MA's), (Start: 64 @7360 has 4 MA's), (Start: 72 @7381 has 3 MA's), (Start: 75 @7396 has 13 MA's), (81, 7408), (147, 7681),

Gene: Whirlwind\_9 Start: 5535, Stop: 6134, Start Num: 57

Candidate Starts for Whirlwind\_9:

(Start: 57 @5535 has 136 MA's), (111, 5721), (121, 5796), (158, 5943), (174, 6033),

Gene: Whitney\_6 Start: 4327, Stop: 4878, Start Num: 71

Candidate Starts for Whitney\_6:

(Start: 71 @4327 has 16 MA's), (90, 4408), (105, 4480), (172, 4786),

Gene: Wigglewobble\_7 Start: 5455, Stop: 6060, Start Num: 57

Candidate Starts for Wigglewobble\_7:

(Start: 41 @5428 has 3 MA's), (49, 5440), (Start: 57 @5455 has 136 MA's), (99, 5593), (135, 5776), (142, 5797), (160, 5884), (174, 5965), (183, 6004),

Gene: Wildcat\_29 Start: 12247, Stop: 12903, Start Num: 35

Candidate Starts for Wildcat\_29:

(Start: 35 @12247 has 26 MA's), (89, 12349), (94, 12397), (106, 12442), (118, 12544), (120, 12556), (150, 12655), (153, 12664), (168, 12748), (185, 12847),

Gene: Wilder\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Wilder\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Winky\_7 Start: 5422, Stop: 6027, Start Num: 57

Candidate Starts for Winky\_7:

(Start: 41 @5395 has 3 MA's), (49, 5407), (Start: 57 @5422 has 136 MA's), (99, 5560), (135, 5743), (142, 5764), (160, 5851), (174, 5932), (183, 5971),

Gene: Wintermute\_13 Start: 8533, Stop: 9105, Start Num: 57

Candidate Starts for Wintermute\_13:

(Start: 57 @8533 has 136 MA's), (129, 8821), (147, 8866),

Gene: Wrigley\_5 Start: 4448, Stop: 5104, Start Num: 32

Candidate Starts for Wrigley\_5:

(Start: 25 @4421 has 2 MA's), (Start: 32 @4448 has 15 MA's), (Start: 36 @4457 has 1 MA's), (Start: 47 @4481 has 1 MA's), (66, 4523), (67, 4526), (116, 4772),

Gene: Wyatt2\_7 Start: 5429, Stop: 6040, Start Num: 57

Candidate Starts for Wyatt2\_7:

(Start: 41 @5402 has 3 MA's), (Start: 57 @5429 has 136 MA's), (132, 5744), (134, 5750), (142, 5774), (174, 5948), (183, 5987),

Gene: Ximenita\_12 Start: 6410, Stop: 6994, Start Num: 57

Candidate Starts for Ximenita\_12:

(Start: 57 @6410 has 136 MA's), (115, 6659), (127, 6710), (147, 6761), (155, 6800), (192, 6977),

Gene: Y10\_13 Start: 8533, Stop: 9105, Start Num: 57

Candidate Starts for Y10\_13:

(Start: 57 @8533 has 136 MA's), (129, 8821), (147, 8866),

Gene: Y2\_13 Start: 8533, Stop: 9105, Start Num: 57

Candidate Starts for Y2\_13:

(Start: 57 @8533 has 136 MA's), (129, 8821), (147, 8866),

Gene: YasnayaPolyana\_13 Start: 8534, Stop: 9106, Start Num: 57

Candidate Starts for YasnayaPolyana\_13:

(Start: 57 @8534 has 136 MA's), (129, 8822), (147, 8867),

Gene: Yoshi\_6 Start: 4306, Stop: 4854, Start Num: 68

Candidate Starts for Yoshi\_6:

(2, 3883), (4, 4015), (12, 4090), (15, 4126), (22, 4189), (Start: 68 @4306 has 10 MA's), (93, 4411), (100, 4435), (128, 4594), (172, 4759),

Gene: YoureAdopted\_11 Start: 7286, Stop: 7828, Start Num: 56

Candidate Starts for YoureAdopted\_11:

(Start: 56 @7286 has 105 MA's), (106, 7421), (147, 7589), (186, 7784), (191, 7802), (192, 7811),

Gene: Yuna\_12 Start: 6421, Stop: 6981, Start Num: 57

Candidate Starts for Yuna\_12:

(Start: 57 @6421 has 136 MA's), (155, 6781), (191, 6955), (192, 6964),

Gene: Yunkel11\_12 Start: 6279, Stop: 6812, Start Num: 56

Candidate Starts for Yunkel11\_12:

(53, 6273), (Start: 56 @6279 has 105 MA's), (106, 6408), (147, 6576), (191, 6786), (192, 6795),

Gene: Zabiza\_12 Start: 7313, Stop: 7855, Start Num: 56

Candidate Starts for Zabiza\_12:

(Start: 56 @7313 has 105 MA's), (106, 7448), (147, 7616), (186, 7811), (191, 7829), (192, 7838),

Gene: Zakai\_7 Start: 5410, Stop: 6015, Start Num: 57

Candidate Starts for Zakai\_7:

(Start: 41 @5383 has 3 MA's), (49, 5395), (Start: 57 @5410 has 136 MA's), (99, 5548), (135, 5731), (142, 5752), (160, 5839), (174, 5920), (183, 5959),

Gene: Zapner\_7 Start: 4831, Stop: 5379, Start Num: 68

Candidate Starts for Zapner\_7:

(2, 4408), (4, 4540), (12, 4615), (15, 4651), (22, 4714), (Start: 68 @4831 has 10 MA's), (93, 4936), (100, 4960), (128, 5119), (172, 5284),

Gene: Zaria\_7 Start: 5430, Stop: 6041, Start Num: 57

Candidate Starts for Zaria\_7:

(Start: 41 @5403 has 3 MA's), (Start: 57 @5430 has 136 MA's), (132, 5745), (134, 5751), (142, 5775), (174, 5949), (183, 5988),

Gene: Zavala\_12 Start: 7295, Stop: 7837, Start Num: 56

Candidate Starts for Zavala\_12:

(Start: 56 @7295 has 105 MA's), (106, 7430), (147, 7598), (186, 7793), (191, 7811), (192, 7820),

Gene: ZhongYanYuan\_6 Start: 5250, Stop: 5855, Start Num: 57

Candidate Starts for ZhongYanYuan\_6:

(Start: 57 @5250 has 136 MA's), (99, 5391), (135, 5574), (142, 5595), (152, 5625), (160, 5682), (174, 5763), (183, 5802),

Gene: Ziko\_41 Start: 14595, Stop: 15161, Start Num: 82

Candidate Starts for Ziko\_41:

(39, 14478), (Start: 82 @14595 has 5 MA's), (104, 14703), (154, 14925), (162, 14985), (180, 15096),

Gene: ZoeJ\_8 Start: 5306, Stop: 5842, Start Num: 57

Candidate Starts for ZoeJ\_8:

(Start: 57 @5306 has 136 MA's), (135, 5603), (147, 5621), (191, 5816),