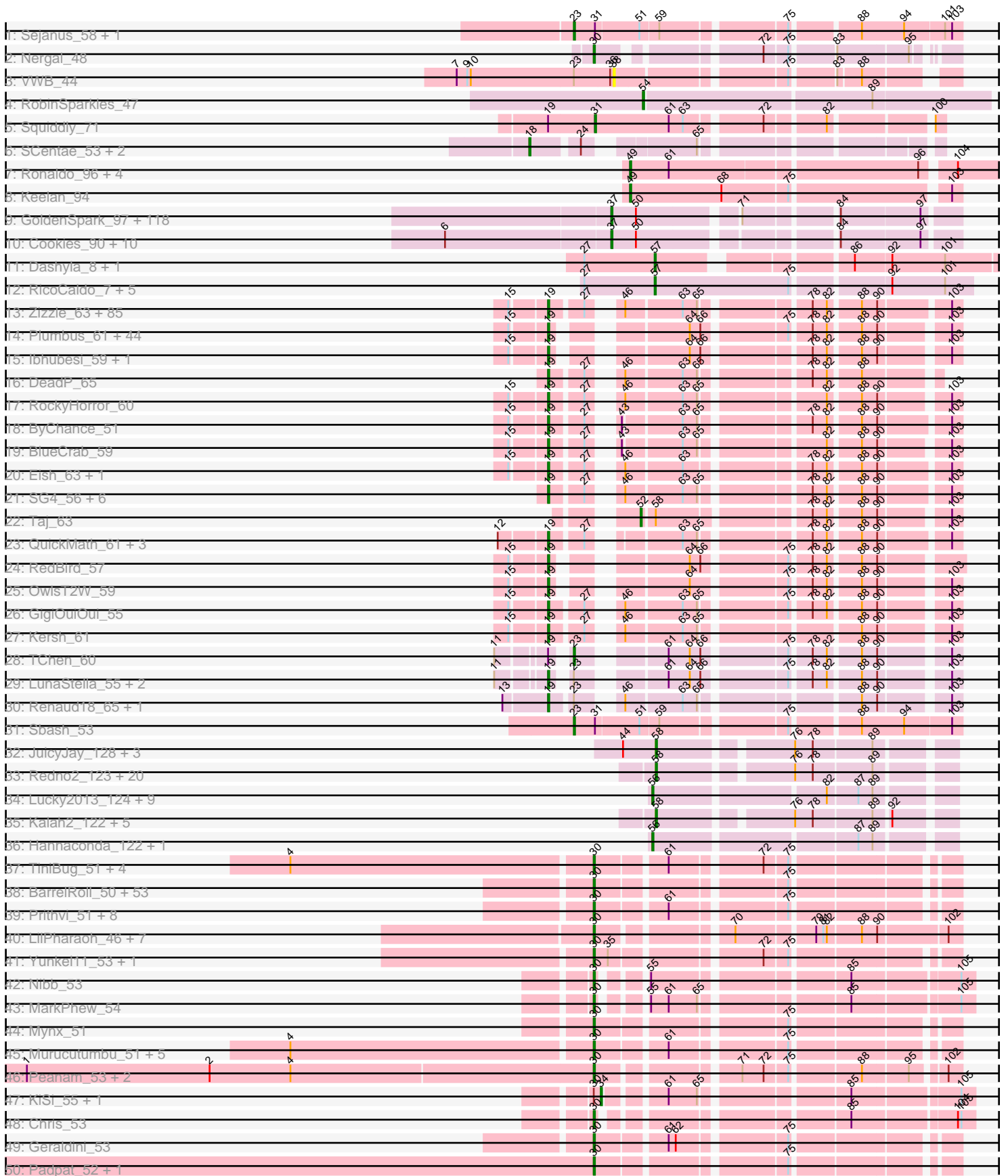
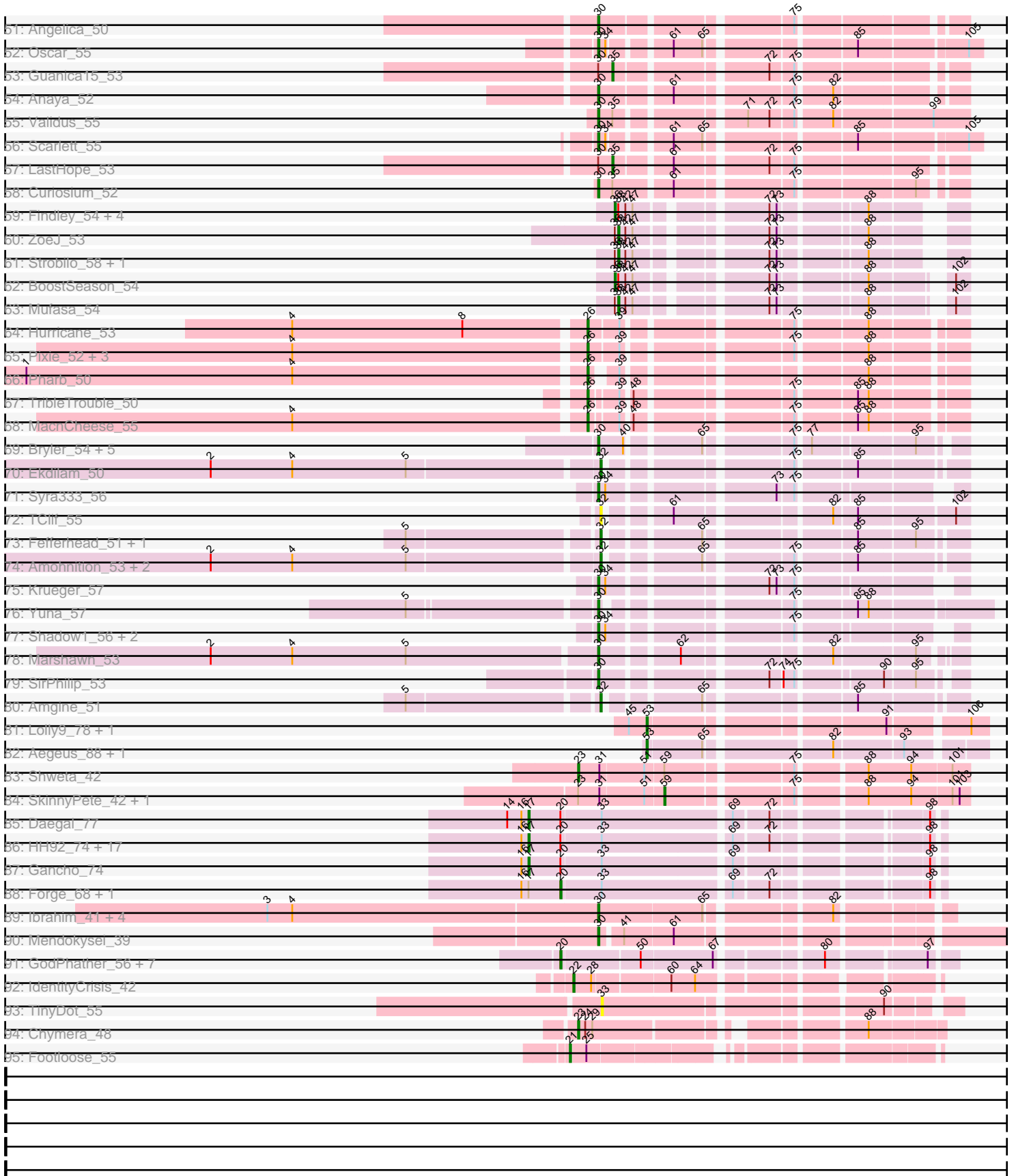


Pham 163245



Pham 163245



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 163245 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163245 has 549 members, 42 are drafts.

Phages represented in each track:

- Track 1 : Sejanus\_58, Charlie\_44
- Track 2 : Nergal\_48
- Track 3 : VWB\_44
- Track 4 : RobinSparkles\_47
- Track 5 : Squiddly\_71
- Track 6 : SCentae\_53, Pupper\_53, CherryTomatoes\_56
- Track 7 : Ronaldo\_96, Ziko\_96, Guey18\_98, Volt\_97, Fryberger\_93
- Track 8 : Keelan\_94
- Track 9 : GoldenSpark\_97, HanKaySha\_94, Lilpickle\_92, BigBubba\_93, Terminus\_96, Highbury\_92, CrystalP\_92, Cjw1\_94, YassJohnny\_90, ShamWow\_93, Cactus\_96, ChosenOne\_93, TeardropMSU\_89, Inca\_90, Youngblood\_96, Policronamos\_97, Henry\_91, Simpliphy\_92, GooberAzure\_96, Xandras\_92, BilboSwaggins\_92, Holt\_98, Contagion\_89, MadamMonkfish\_93, Murica\_96, Paperbeatsrock\_92, NoSleep\_94, Nala\_95, JeTaime\_94, Flypotenuse\_89, OrionPax\_92, Lilizi\_94, Porky\_92, Icee\_94, Gemini\_98, Kimchi\_97, Tarkin\_92, Gage\_95, ShereKhan\_91, Willez\_88, Hopey\_94, FireRed\_97, Dusk\_90, Harella\_93, Quallification\_94, Palpatine\_95, Stark\_95, NelitzaMV\_91, Eureka\_92, Hoonter\_96, SirDuracell\_93, BaboJay\_93, Sotrice96\_94, Murphy\_93, Lilac\_96, Goldilocks\_96, StolenFromERC\_96, Tuco\_94, Miniwave\_88, Amao\_93, MISSy\_94, Phrux\_91, Glexan\_92, Bruin\_90, StellaBean\_89, Thresher\_96, Bench\_96, Command613\_95, Rakim\_94, Mosby\_89, Marshmallow\_91, Misfit\_94, 244\_94, Myrale\_93, Manda\_95, Teaspoon\_90, Nimrod\_94, Pumpkin\_97, SophKB\_90, Tomaszewski\_88, ABCat\_90, Sassay\_88, Phaja\_91, Goku\_92, Argent26\_97, IHOP\_91, BadStone\_90, Saints25\_92, Asriel\_91, Elph10\_94, DrDrey\_93, TBrady12\_96, Dumbo\_93, Toto\_91, HufflyPuff\_95, xkcd\_96, MPhalcon\_94, Adnama\_97, Traaww1\_89, Pharsalus\_90, BugsBunny\_93, Filch\_95, Wiggin\_95, Ukulele\_88, Czyszczonek1\_94, PhatBacter\_97, Mindy\_92, Easy2Say\_94, Kostya\_93, Moldemort\_96, Stank\_95, Emmina\_93, RiverMonster\_94, Elite2014\_92, AmericanBeauty\_100, Kanye\_90, Maxxinista\_96, Barbarian\_92, Phaux\_96
- Track 10 : Cookies\_90, Buck\_94, Balomoji\_93, Rimmer\_91, Bask21\_93, DoctorDiddles\_92, Gator\_91, Daikon\_94, Petra64142\_98, Pat3\_90, ChotaBhai\_93
- Track 11 : Dashyla\_8, Alex44\_7
- Track 12 : RicoCaldo\_7, StagePhright\_7, Fullmetal\_7, Astartes\_7, PhriedRice\_7, Moleficent\_7
- Track 13 : Zizzle\_63, Phatniss\_57, Llij\_55, Rita\_60, Zerg\_59, Soul22\_65, EleanorGeorge\_60, Rockne\_60, Mahavrat\_57, Koella\_53, Mozy\_68, Zapner\_72, Maravista\_60, Radiance\_58, James\_63, Pippy\_57, UncleRicky\_58, VRedHorse\_59,

LastJedi\_53, Scottish\_57, Crumble\_54, Fancypants\_61, Drago\_57, Blexus\_57, Strokeseat\_55, Sabbb\_63, Jabbawokkie\_73, Totinger\_61, Lizziana\_65, Whouxphf\_56, Dante\_60, Tootsieroll\_60, DirtMcgirt\_58, Byougenkin\_57, Chuckly\_62, ShiLan\_58, Clifton\_54, PMC\_56, Hlubikazi\_55, Blarby\_71, Boomer\_64, Mattes\_63, Firehouse51\_60, Hades\_60, Mutaforma13\_63, Spikelee\_66, ShowerHandel\_60, Burwell21\_57, SiSi\_57, SwagPiggett\_64, Pollywog\_60, NormanBulbieJr\_59, IrishSherpFalk\_60, Priscilla\_59, Saal\_61, BuzzLyseyear\_65, Alexphander\_63, Marker\_66, DaddyRickover\_58, Doug\_61, OlympiaSaint\_61, ShroomBoi\_61, Madiba\_57, Mandlovu\_55, Yorick\_58, Karhdo\_56, WillSterrel\_60, Jarcob\_59, Latretium\_61, Mova\_60, Eradicator\_52, Martik\_59, OldBen\_56, KristaRAM\_62, Spartacus\_61, Gandalph\_62, BobaPhett\_63, Brocalys\_54, MadMen\_57, Cabrinians\_60, Gorge\_63, FreddyB\_60, LittleShirley\_59, Rialto\_65, Lorde\_59, GUmbie\_57

- Track 14 : Plumbus\_61, SimranZ1\_59, Daenerys\_53, AlpineSix\_64, Job42\_61, Pacc40\_53, Nivrat\_55, LunaBlu\_61, Dorothy\_57, KingMidas\_58, Avani\_67, Sebastian\_64, Jinglebell\_64, Ochi17\_62, Leozinho\_58, DosHalletts\_65, Stap\_57, Modragons\_63, Inventum\_54, Phasih\_57, Leperchaun\_51, Girr\_57, PHappiness\_54, JoeyJr\_54, Ruby\_55, Cornucopia\_61, Doomphist\_59, Empress\_57, Fastidio\_58, Poenanya\_59, Estave1\_62, LilMoolah\_57, Sassafras\_57, DRBy19\_62, OfUltron\_64, Oksu\_63, Spoonbill\_56, Llama\_64, RitaG\_54, DillTech15\_56, MisterCuddles\_57, Galactic\_58, Philus\_62, Polka14\_57, BodEinwohner17\_59

- Track 15 : lbhubesi\_59, Veteran\_56

- Track 16 : DeadP\_65

- Track 17 : RockyHorror\_60

- Track 18 : ByChance\_51

- Track 19 : BlueCrab\_59

- Track 20 : Eish\_63, DaWorst\_60

- Track 21 : SG4\_56, Wee\_63, Hegedechwinu\_59, lbOuu\_60, MinionDave\_58, Enby\_60, CaptainTrips\_56

- Track 22 : Taj\_63

- Track 23 : QuickMath\_61, Starcevich\_59, Kimberlium\_62, Cornie\_55

- Track 24 : RedBird\_57

- Track 25 : OwlsT2W\_59

- Track 26 : GigiOuiOui\_55

- Track 27 : Kersh\_61

- Track 28 : TChen\_60

- Track 29 : LunaStella\_55, Yoshi\_72, ThetaBob\_64

- Track 30 : Renaud18\_65, Demsculpinboyz\_70

- Track 31 : Sbash\_53

- Track 32 : JuicyJay\_128, NihilNomen\_133, Bombitas\_119, Beem\_133

- Track 33 : Redno2\_123, Yeet\_123, Wanda\_130, BAKA\_131, Zelink\_126, Hughesyang\_131, Minerva\_130, Dove\_124, HokkenD\_121, Constella\_121, Duke13\_126, ThreeRngTarjay\_127, Odette\_133, Ejimix\_125, Klein\_128, Bobby\_123, Halley\_133, Thibault\_113, Dallas\_132, Phoebus\_132, EricMillard\_123

- Track 34 : Lucky2013\_124, Squint\_127, Omega\_139, Ariel\_129, Gonephishing\_123, KashFlow\_127, LittleE\_132, Superphikiman\_126, Porcelain\_127, Courthouse\_124

- Track 35 : Kalah2\_122, DmpstrDiver\_131, Pound\_120, Schatzie\_127, Bagrid\_131, Optimus\_122

- Track 36 : Hannaconda\_122, MiaZeal\_129

- Track 37 : TiniBug\_51, SamuelLPlaqson\_51, DrHayes\_51, Bella96\_51, Urkel\_51

- Track 38 : BarrelRoll\_50, AlishaPH\_50, BaghaKamala\_49, Asayake\_50, Atiba\_51, Adephagia\_50, Veliki\_51, Beezoo\_52, JAWS\_50, Ramen\_51, ActinUp\_50,

Hyperbowlee\_50, CREW\_50, Slimphazie\_50, TruffulaTree\_50, Zavala\_52, Adonis\_50, Capricorn\_50, Spock\_50, QuincyRose\_49, Durfee\_50, Sulley\_50, Tachez\_50, Jayhawk\_51, Rapunzel97\_51, CaseJules\_52, Topper\_50, Dalmuri\_50, Rosmarinus\_50, Apocalypse\_53, Joy99\_50, CheetoDust\_49, Blizzard\_50, Zabiza\_46, Belladonna\_50, Homura\_50, Inky\_50, Lunahalos\_50, TaiwanKao\_52, HedwigODU\_50, MeaningOfLife\_51, Peel\_50, Llorens\_50, Padfoot\_50, Jeckyll\_50, Boiiii\_50, BGlluviae\_50, BEEST\_50, Ganymede\_51, Piatt\_50, YoureAdopted\_49, ShiaSurprise\_51, Jarvi\_50, Twitch\_50

- Track 39 : Prithvi\_51, CrimD\_50, LaterM\_51, Megsy\_52, LindNT\_49, TreyKay\_51, Deby\_50, Tiri\_51, Pokerus\_49
- Track 40 : LilPharaoh\_46, SgtBeansprout\_46, Enkosi\_48, Nutello\_46, Amelie\_46, Nikao\_49, Mdavu\_47, Binglebops\_46
- Track 41 : Yunkel11\_53, Efra2\_53
- Track 42 : Nibb\_53
- Track 43 : MarkPhew\_54
- Track 44 : Mynx\_51
- Track 45 : Murucutumbu\_51, Illumine\_53, Dole\_53, Ageofdapage\_52, Devera\_55, Stinson\_51
- Track 46 : Peanam\_53, Shaobing\_53, Niklas\_53
- Track 47 : KiSi\_55, LeMond\_55
- Track 48 : Chris\_53
- Track 49 : Geraldini\_53
- Track 50 : Padpat\_52, Emerson\_51
- Track 51 : Angelica\_50
- Track 52 : Oscar\_55
- Track 53 : Guanica15\_53
- Track 54 : Anaya\_52
- Track 55 : Validus\_55
- Track 56 : Scarlett\_55
- Track 57 : LastHope\_53
- Track 58 : Curiosium\_52
- Track 59 : Findley\_54, DismalStressor\_54, DismalFunk\_54, Milly\_54, Marcoliusprime\_54
- Track 60 : ZoeJ\_53
- Track 61 : Strobilo\_58, TM4\_49
- Track 62 : BoostSeason\_54
- Track 63 : Mufasa\_54
- Track 64 : Hurricane\_53
- Track 65 : Pixie\_52, Keshu\_55, TBond007\_51, ShedlockHolmes\_54
- Track 66 : Pharb\_50
- Track 67 : TribbleTrouble\_50
- Track 68 : MacnCheese\_55
- Track 69 : Bryler\_54, Cain\_54, Tierra\_54, PhelpsODU\_53, Phrank\_54, Unicorn\_53
- Track 70 : Ekdilam\_50
- Track 71 : Syra333\_56
- Track 72 : TClif\_55
- Track 73 : Fefferhead\_51, Ellie\_49
- Track 74 : Amohnition\_53, DarthP\_53, Hammy\_53
- Track 75 : Krueger\_57
- Track 76 : Yuna\_57
- Track 77 : Shadow1\_56, Sunflower1121\_57, Ximenita\_57
- Track 78 : Marshawn\_53
- Track 79 : SirPhilip\_53

- Track 80 : Amgine\_51
- Track 81 : Lolly9\_78, MiniMac\_83
- Track 82 : Aegeus\_88, Baudelaire\_88
- Track 83 : Shweta\_42
- Track 84 : SkinnyPete\_42, Journey\_46
- Track 85 : Daegal\_77
- Track 86 : HH92\_74, Amymech\_75, Webster2\_75, OBUpride\_74, Giles\_68, Hadrien\_72, LilHazelNut\_75, Ubuntu\_75, DeepSoil15\_75, Luke\_72, Amochick\_76, Dewey\_68, Hail\_68, Gravallia\_69, Evanesce\_74, Ein37\_75, Luna22\_68, Kinbote\_73
- Track 87 : Gancho\_74
- Track 88 : Forge\_68, Wishmaker\_68
- Track 89 : Ibrahim\_41, Nairb\_40, ZenTime222\_40, Bernal13\_41, RonRayGun\_41
- Track 90 : Mendokysei\_39
- Track 91 : GodPhather\_56, Taptic\_55, PR\_55, Jeon\_55, Megabear\_55, D12\_54, Cepens\_55, Argie\_56
- Track 92 : IdentityCrisis\_42
- Track 93 : TinyDot\_55
- Track 94 : Chymera\_48
- Track 95 : Footloose\_55

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

The start number called the most often in the published annotations is 19, it was called in 146 of the 507 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alexphander\_63, AlpineSix\_64, Avani\_67, Blarby\_71, Blexus\_57, BlueCrab\_59, BobaPhett\_63, BodEinwohner17\_59, Boomer\_64, Brocalys\_54, Burwell21\_57, BuzzLyseyear\_65, ByChance\_51, Byougenkin\_57, Cabrinians\_60, CaptainTrips\_56, Chuckly\_62, Clifton\_54, Cornie\_55, Cornucopia\_61, Crumble\_54, DRBy19\_62, DaWorst\_60, DaddyRickover\_58, Daenerys\_53, Dante\_60, DeadP\_65, Demsculpinboyz\_70, DillTech15\_56, DirtMcgirt\_58, Doomphist\_59, Dorothy\_57, DosHalletts\_65, Doug\_61, Drago\_57, Eish\_63, EleanorGeorge\_60, Empress\_57, Enby\_60, Eradicator\_52, Estave1\_62, Fancypants\_61, Fastidio\_58, Firehouse51\_60, FreddyB\_60, GUmbie\_57, Galactic\_58, Gandalph\_62, GigiOuiOui\_55, Girr\_57, Gorge\_63, Hades\_60, Hegedechwinu\_59, Hlubikazi\_55, IbOuu\_60, Ihubesi\_59, Inventum\_54, IrishSherpFalk\_60, Jabbawokkie\_73, James\_63, Jarcob\_59, Jinglebell\_64, Job42\_61, JoeyJr\_54, Karhdo\_56, Kersh\_61, Kimberlium\_62, KingMidas\_58, Koella\_53, KristaRAM\_62, LastJedi\_53, Latretium\_61, Leozinho\_58, Leperchaun\_51, LilMoolah\_57, LittleShirley\_59, Lizziana\_65, Llama\_64, Llij\_55, Lorde\_59, LunaBlu\_61, LunaStella\_55, MadMen\_57, Madiba\_57, Mahavrat\_57, Mandlovu\_55, Maravista\_60, Marker\_66, Martik\_59, Mattes\_63, MinionDave\_58, MisterCuddles\_57, Modragons\_63, Mova\_60, Mozy\_68, Mutaforma13\_63, Nivrat\_55, NormanBulbieJr\_59, Ochi17\_62, OfUltron\_64, Oksu\_63, OldBen\_56, OlympiaSaint\_61, OwlsT2W\_59, PHappiness\_54, PMC\_56, Pacc40\_53, Phasih\_57, Phatniss\_57, Philus\_62, Pippy\_57, Plumbus\_61, Poenanya\_59, Polka14\_57, Pollywog\_60, Priscilla\_59, QuickMath\_61, Radiance\_58, RedBird\_57, Renaud18\_65, Rialto\_65, RitaG\_54, Rita\_60, Rockne\_60, RockyHorror\_60, Ruby\_55, SG4\_56, Saal\_61, Sabbb\_63, Sassafras\_57, Scottish\_57, Sebastian\_64, ShiLan\_58, ShowerHandel\_60, ShroomBoi\_61, SiSi\_57, SimranZ1\_59, Soul22\_65,

Spartacus\_61, Spikelee\_66, Spoonbill\_56, Stap\_57, Starcevich\_59, Strokeseat\_55, SwagPigglett\_64, ThetaBob\_64, Tootsieroll\_60, Totinger\_61, UncleRicky\_58, VRedHorse\_59, Veteran\_56, Wee\_63, Whouxphf\_56, WillSterrel\_60, Yorick\_58, Yoshi\_72, Zapner\_72, Zerg\_59, Zizzle\_63,

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

- Squiddly\_71, TChen\_60,

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

- 244\_94, ABCat\_90, ActinUp\_50, Adephagia\_50, Adnama\_97, Adonis\_50, Aegeus\_88, Ageofdapage\_52, Alex44\_7, AlishaPH\_50, Amao\_93, Amelie\_46, AmericanBeauty\_100, Amgine\_51, Amochick\_76, Amohnition\_53, Amymech\_75, Anaya\_52, Angelica\_50, Apocalypse\_53, Argent26\_97, Argie\_56, Ariel\_129, Asayake\_50, Asriel\_91, Astartes\_7, Atiba\_51, BAKA\_131, BEEST\_50, BGlluviae\_50, BaboJay\_93, BadStone\_90, BaghaKamala\_49, Bagrid\_131, Balomoji\_93, Barbarian\_92, BarrelRoll\_50, Bask21\_93, Baudelaire\_88, Beem\_133, Beezoo\_52, Bella96\_51, Belladonna\_50, Bench\_96, Bernal13\_41, BigBubba\_93, Binglebops\_46, BilboSwaggins\_92, Blizzard\_50, Bobby\_123, Boiiii\_50, Bombitas\_119, BoostSeason\_54, Bruin\_90, Bryler\_54, Buck\_94, BugsBunny\_93, CREW\_50, Cactus\_96, Cain\_54, Capricorn\_50, CaseJules\_52, Cepens\_55, Charlie\_44, CheetoDust\_49, CherryTomatoes\_56, ChosenOne\_93, ChotaBhai\_93, Chris\_53, Chymera\_48, Cjw1\_94, Command613\_95, Constella\_121, Contagion\_89, Cookies\_90, Courthouse\_124, CrimD\_50, CrystalP\_92, Curiosium\_52, Czyszczon1\_94, D12\_54, Daegal\_77, Daikon\_94, Dallas\_132, Dalmuri\_50, DarthP\_53, Dashyla\_8, Deby\_50, DeepSoil15\_75, Devera\_55, Dewey\_68, DismalFunk\_54, DismalStressor\_54, DmpstrDiver\_131, DoctorDiddles\_92, Dole\_53, Dove\_124, DrDrey\_93, DrHayes\_51, Duke13\_126, Dumbo\_93, Durfee\_50, Dusk\_90, Easy2Say\_94, Efra2\_53, Ein37\_75, Ejimix\_125, Ekdilam\_50, Elite2014\_92, Ellie\_49, Elph10\_94, Emerson\_51, Emmina\_93, Enkosi\_48, EricMillard\_123, Eureka\_92, Evanesce\_74, Fefferhead\_51, Filch\_95, Findley\_54, FireRed\_97, Flypotenuse\_89, Footloose\_55, Forge\_68, Fryberger\_93, Fullmetal\_7, Gage\_95, Gancho\_74, Ganymede\_51, Gator\_91, Gemini\_98, Geraldini\_53, Giles\_68, Glexan\_92, GodPhather\_56, Goku\_92, GoldenSpark\_97, Goldilocks\_96, Gonephishing\_123, GooberAzure\_96, Gravaillia\_69, Guanica15\_53, Guey18\_98, HH92\_74, Hadrien\_72, Hail\_68, Halley\_133, Hammy\_53, HanKaySha\_94, Hannaconda\_122, Harella\_93, HedwigODU\_50, Henry\_91, Highbury\_92, HokkenD\_121, Holt\_98, Homura\_50, Hoonter\_96, Hopey\_94, HufflyPuff\_95, Hughesyang\_131, Hurricane\_53, Hyperbowlee\_50, IHOP\_91, Ibrahim\_41, Icee\_94, IdentityCrisis\_42, Illumine\_53, Inca\_90, Inky\_50, JAWS\_50, Jarvi\_50, Jayhawk\_51, JeTaime\_94, Jeckyll\_50, Jeon\_55, Journey\_46, Joy99\_50, JuicyJay\_128, Kalah2\_122, Kanye\_90, KashFlow\_127, Keelan\_94, Keshu\_55, KiSi\_55, Kimchi\_97, Kinbote\_73, Klein\_128, Kostya\_93, Krueger\_57, LastHope\_53, LaterM\_51, LeMond\_55, LilHazelNut\_75, LilPharaoh\_46, Lilac\_96, Lilizi\_94, Lilpickle\_92, LindNT\_49, LittleE\_132, Llorens\_50, Lolly9\_78, Lucky2013\_124, Luke\_72, Luna22\_68, Lunahalos\_50, MISSy\_94, MPhalcon\_94, MacnCheese\_55, MadamMonkfish\_93, Manda\_95, Marcoliusprime\_54, MarkPhew\_54, Marshawn\_53, Marshmallow\_91, Maxxinista\_96, Mdavu\_47, MeaningOfLife\_51, Megabear\_55, Megsy\_52, Mendokyse\_39, MiaZeal\_129, Milly\_54, Mindy\_92, Minerva\_130, MiniMac\_83, Miniwave\_88, Misfit\_94, Moldemort\_96, Moleficent\_7, Mosby\_89, Mufasa\_54, Murica\_96, Murphy\_93, Murucutumbu\_51, Mynx\_51, Myrale\_93, Nairb\_40, Nala\_95, NelitzaMV\_91, Nergal\_48, Nibb\_53, NihilNomen\_133, Nikao\_49, Niklas\_53, Nimrod\_94, NoSleep\_94, Nutello\_46, OBUpride\_74, Odette\_133, Omega\_139, Optimus\_122, OrionPax\_92, Oscar\_55, PR\_55, Padfoot\_50, Padpat\_52,

Palpatine\_95, Paperbeatsrock\_92, Pat3\_90, Peanam\_53, Peel\_50, Petra64142\_98, Phaja\_91, Pharb\_50, Pharsalus\_90, PhatBacter\_97, Phaux\_96, PhelpsODU\_53, Phoebus\_132, Phrank\_54, PhriedRice\_7, Phrux\_91, Piatt\_50, Pixie\_52, Pokerus\_49, Policronamos\_97, Porcelain\_127, Porky\_92, Pound\_120, Prithvi\_51, Pumpkin\_97, Pupper\_53, Quallification\_94, QuincyRose\_49, Rakim\_94, Ramen\_51, Rapunzel97\_51, Redno2\_123, RicoCaldo\_7, Rimmer\_91, RiverMonster\_94, RobinSparkles\_47, RonRayGun\_41, Ronaldo\_96, Rosmarinus\_50, SCentae\_53, Saints25\_92, SamuelLPlaqson\_51, Sassay\_88, Sbash\_53, Scarlett\_55, Schatzie\_127, Sejanus\_58, SgtBeansprout\_46, Shadow1\_56, ShamWow\_93, Shaobing\_53, ShedlockHolmes\_54, ShereKhan\_91, ShiaSurprise\_51, Shweta\_42, Simpliphy\_92, SirDuracell\_93, SirPhilip\_53, SkinnyPete\_42, Slimphazie\_50, SophKB\_90, Sotrice96\_94, Spock\_50, Squint\_127, StagePhright\_7, Stank\_95, Stark\_95, StellaBean\_89, Stinson\_51, StolenFromERC\_96, Strobilo\_58, Sulley\_50, Sunflower1121\_57, Superphikiman\_126, Syra333\_56, TBond007\_51, TBrady12\_96, TClif\_55, TM4\_49, Tachez\_50, TaiwanKao\_52, Taj\_63, Taptic\_55, Tarkin\_92, TeardropMSU\_89, Teaspoon\_90, Terminus\_96, Thibault\_113, ThreeRngTarjay\_127, Thresher\_96, Tierra\_54, TiniBug\_51, TinyDot\_55, Tiri\_51, Tomaszewski\_88, Topper\_50, Toto\_91, Traaww1\_89, TreyKay\_51, TripleTrouble\_50, TruffulaTree\_50, Tuco\_94, Twitch\_50, Ubuntu\_75, Ukulele\_88, Unicorn\_53, Urkel\_51, VWB\_44, Validus\_55, Veliki\_51, Volt\_97, Wanda\_130, Webster2\_75, Wiggin\_95, Willez\_88, Wishmaker\_68, Xandras\_92, Ximenita\_57, YassJohnny\_90, Yeet\_123, Youngblood\_96, YoureAdopted\_49, Yuna\_57, Yunkel11\_53, Zabiza\_46, Zavala\_52, Zelink\_126, ZenTime222\_40, Ziko\_96, ZoeJ\_53, xkcd\_96,

### Summary by start number:

#### Start 17:

- Found in 22 of 549 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 20 of 507
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Amochick\_76 (Q), Amymech\_75 (Q), Daegal\_77 (Q), DeepSoil15\_75 (Q), Dewey\_68 (Q), Ein37\_75 (Q), Evanesce\_74 (Q), Gancho\_74 (Q), Giles\_68 (Q), Gravaillia\_69 (Q), HH92\_74 (Q), Hadrien\_72 (Q), Hail\_68 (Q), Kinbote\_73 (Q), LilHazelnut\_75 (Q), Luke\_72 (Q), Luna22\_68 (Q), OBUpride\_74 (Q), Ubuntu\_75 (Q), Webster2\_75 (Q),

#### Start 18:

- Found in 3 of 549 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 2 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_56 (DO), Pupper\_53 (DO), SCentae\_53 (DO),

#### Start 19:

- Found in 161 of 549 ( 29.3% ) of genes in pham
- Manual Annotations of this start: 146 of 507
- Called 98.8% of time when present
- Phage (with cluster) where this start called: Alexphander\_63 (F1), AlpineSix\_64 (F1), Avani\_67 (F2), Blarby\_71 (F), Blexus\_57 (F1), BlueCrab\_59 (F1), BobaPhett\_63 (F1), BodEinwohner17\_59 (F1), Boomer\_64 (F1), Brocalys\_54 (F1), Burwell21\_57 (F1), BuzzLyseyear\_65 (F1), ByChance\_51 (F1), Byougenkin\_57 (F1), Cabrinians\_60 (F1), CaptainTrips\_56 (F1), Chuckly\_62 (F1), Clifton\_54 (F1), Cornie\_55 (F5), Cornucopia\_61 (F1), Crumble\_54 (F1), DRBy19\_62 (F1),



DaWorst\_60 (F1), DaddyRickover\_58 (F1), Daenerys\_53 (F1), Dante\_60 (F1), DeadP\_65 (F1), Demsculpinboyz\_70 (F2), DillTech15\_56 (F1), DirtMcgirt\_58 (F1), Doomphist\_59 (F1), Dorothy\_57 (F1), DosHalletts\_65 (F1), Doug\_61 (F1), Drago\_57 (F1), Eish\_63 (F1), EleanorGeorge\_60 (F1), Empress\_57 (F1), Enby\_60 (F1), Eradicator\_52 (F1), Estave1\_62 (F1), Fancypants\_61 (F1), Fastidio\_58 (F1), Firehouse51\_60 (F1), FreddyB\_60 (F1), GUmbie\_57 (F1), Galactic\_58 (F1), Gandolph\_62 (F1), GigiOuiOui\_55 (F1), Girr\_57 (F1), Gorge\_63 (F1), Hades\_60 (F1), Hegedechwinu\_59 (F1), Hlubikazi\_55 (F1), IbOuu\_60 (F1), Ibhubesi\_59 (F1), Inventum\_54 (F1), IrishSherpFalk\_60 (F1), Jabbawokkie\_73 (F2), James\_63 (F1), Jarcob\_59 (F1), Jinglebell\_64 (F1), Job42\_61 (F1), JoeyJr\_54 (F1), Karhdo\_56 (F1), Kersh\_61 (F1), Kimberlium\_62 (F1), KingMidas\_58 (F1), Koella\_53 (F1), KristaRAM\_62 (F1), LastJedi\_53 (F1), Latretium\_61 (F1), Leozinho\_58 (F1), Leperchaun\_51 (F1), LilMoolah\_57 (F1), LittleShirley\_59 (F1), Lizziana\_65 (F1), Llama\_64 (F1), Llij\_55 (F1), Lorde\_59 (F1), LunaBlu\_61 (F1), LunaStella\_55 (F4), MadMen\_57 (F1), Madiba\_57 (F1), Mahavrat\_57 (F1), Mandlovu\_55 (F1), Maravista\_60 (F1), Marker\_66 (F1), Martik\_59 (F1), Mattes\_63 (F1), MinionDave\_58 (F1), MisterCuddles\_57 (F1), Modragons\_63 (F1), Mova\_60 (F1), Mozy\_68 (F1), Mutaforma13\_63 (F1), Nivrat\_55 (F1), NormanBulbieJr\_59 (F1), Ochi17\_62 (F1), OfUltron\_64 (F1), Oksu\_63 (F1), OldBen\_56 (F1), OlympiaSaint\_61 (F1), OwlsT2W\_59 (F1), PHappiness\_54 (F1), PMC\_56 (F1), Pacc40\_53 (F1), Phasih\_57 (F1), Phatniss\_57 (F1), Philus\_62 (F1), Pippy\_57 (F1), Plumbus\_61 (F1), Poenanya\_59 (F1), Polka14\_57 (F1), Pollywog\_60 (F1), Priscilla\_59 (F1), QuickMath\_61 (F1), Radiance\_58 (F1), RedBird\_57 (F1), Renaud18\_65 (F4), Rialto\_65 (F1), RitaG\_54 (F1), Rita\_60 (F1), Rockne\_60 (F1), RockyHorror\_60 (F1), Ruby\_55 (F1), SG4\_56 (F1), Saal\_61 (F1), Sabbb\_63 (F1), Sassafras\_57 (F1), Scottish\_57 (F1), Seabastian\_64 (F1), ShiLan\_58 (F1), ShowerHandel\_60 (F1), ShroomBoi\_61 (F1), SiSi\_57 (F1), SimranZ1\_59 (F1), Soul22\_65 (F2), Spartacus\_61 (F1), Spikelee\_66 (F1), Spoonbill\_56 (F1), Stap\_57 (F1), Starcevich\_59 (F1), Strokeseat\_55 (F1), SwagPigglett\_64 (F1), ThetaBob\_64 (F4), Tootsieroll\_60 (F1), Totinger\_61 (F1), UncleRicky\_58 (F1), VRedHorse\_59 (F1), Veteran\_56 (F1), Wee\_63 (F1), Whouxphf\_56 (F1), WillSterrel\_60 (F1), Yorick\_58 (F1), Yoshi\_72 (F2), Zapner\_72 (F2), Zerg\_59 (F1), Zizzle\_63 (F1),

#### Start 20:

- Found in 30 of 549 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 10 of 507
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Argie\_56 (W), Cepens\_55 (W), D12\_54 (W), Forge\_68 (Q), GodPhather\_56 (W), Jeon\_55 (W), Megabear\_55 (W), PR\_55 (W), Taptic\_55 (W), Wishmaker\_68 (Q),

#### Start 21:

- Found in 1 of 549 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Footloose\_55 (singleton),

#### Start 22:

- Found in 1 of 549 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IdentityCrisis\_42 (singleton),

#### Start 23:

- Found in 14 of 549 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 6 of 507
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Charlie\_44 (N), Chymera\_48 (singleton), Sbash\_53 (I2), Sejanus\_58 (AD), Shweta\_42 (N), TChen\_60 (F4),

#### Start 26:

- Found in 8 of 549 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 8 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hurricane\_53 (K3), Keshu\_55 (K3), MacnCheese\_55 (K3), Pharb\_50 (K3), Pixie\_52 (K3), ShedlockHolmes\_54 (K3), TBond007\_51 (K3), TripleTrouble\_50 (K3),

#### Start 30:

- Found in 125 of 549 ( 22.8% ) of genes in pham
- Manual Annotations of this start: 116 of 507
- Called 96.8% of time when present
- Phage (with cluster) where this start called: ActinUp\_50 (K1), Adephagia\_50 (K1), Adonis\_50 (K1), Ageofdapage\_52 (K1), AlishaPH\_50 (K1), Amelie\_46 (K1), Anaya\_52 (K1), Angelica\_50 (K1), Apocalypse\_53 (K1), Asayake\_50 (K1), Atiba\_51 (K1), BEEST\_50 (K1), BGlluviae\_50 (K1), BaghaKamala\_49 (K1), BarrelRoll\_50 (K1), Beezoo\_52 (K1), Bella96\_51 (K1), Belladonna\_50 (K1), Bernal13\_41 (T), Binglebops\_46 (K1), Blizzard\_50 (K1), Boiii\_50 (K1), Bryler\_54 (K6), CREW\_50 (K1), Cain\_54 (K6), Capricorn\_50 (K1), CaseJules\_52 (K1), CheetoDust\_49 (K1), Chris\_53 (K1), CrimD\_50 (K1), Curiosium\_52 (K1), Dalmuri\_50 (K1), Deby\_50 (K1), Devera\_55 (K1), Dole\_53 (K1), DrHayes\_51 (K1), Durfee\_50 (K1), Efra2\_53 (K1), Emerson\_51 (K1), Enkosi\_48 (K1), Ganymede\_51 (K1), Geraldini\_53 (K1), HedwigODU\_50 (K1), Homura\_50 (K1), Hyperbowlee\_50 (K1), Ibrahim\_41 (T), Illumine\_53 (K1), Inky\_50 (K1), JAWS\_50 (K1), Jarvi\_50 (K1), Jayhawk\_51 (K1), Jeckyll\_50 (K1), Joy99\_50 (K1), Krueger\_57 (K6), LaterM\_51 (K1), LilPharaoh\_46 (K1), LindNT\_49 (K1), Llorens\_50 (K1), Lunahalos\_50 (K1), MarkPhew\_54 (K1), Marshawn\_53 (K6), Mdavu\_47 (K1), MeaningOfLife\_51 (K1), Megsy\_52 (K1), Mendokyse\_39 (T), Murucutumbu\_51 (K1), Mynx\_51 (K1), Nairb\_40 (T), Nergal\_48 (AG), Nibb\_53 (K1), Nikao\_49 (K1), Niklas\_53 (K1), Nutello\_46 (K1), Oscar\_55 (K1), Padfoot\_50 (K1), Padpat\_52 (K1), Peanam\_53 (K1), Peel\_50 (K1), PhelpsODU\_53 (K6), Phrank\_54 (K6), Piatt\_50 (K1), Pokerus\_49 (K1), Prithvi\_51 (K1), QuincyRose\_49 (K1), Ramen\_51 (K1), Rapunzel97\_51 (K1), RonRayGun\_41 (T), Rosmarinus\_50 (K1), SamuelLPlaqson\_51 (K1), Scarlett\_55 (K1), SgtBeansprout\_46 (K1), Shadow1\_56 (K6), Shaobing\_53 (K1), ShiaSurprise\_51 (K1), SirPhilip\_53 (K6), Slimphazie\_50 (K1), Spock\_50 (K1), Stinson\_51 (K1), Sulley\_50 (K1), Sunflower1121\_57 (K6), Syra333\_56 (K6), Tachez\_50 (K1), TaiwanKao\_52 (K1), Tierra\_54 (K6), TiniBug\_51 (K1), Tiri\_51 (K1), Topper\_50 (K1), TreyKay\_51 (K1), TruffulaTree\_50 (K1), Twitch\_50 (K1), Unicorn\_53 (K6), Urkel\_51 (K1), Validus\_55 (K1), Veliki\_51 (K1), Ximenita\_57 (K6), YoureAdopted\_49 (K1), Yuna\_57 (K6), Yunkel11\_53 (K1), Zabiza\_46 (K1), Zavala\_52 (K1), ZenTime222\_40 (T),

#### Start 31:

- Found in 7 of 549 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 1 of 507
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Squiddly\_71 (DN2),

Start 32:

- Found in 8 of 549 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 7 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amgine\_51 (K6), Amohnition\_53 (K6), DarthP\_53 (K6), Ekdilam\_50 (K6), Ellie\_49 (K6), Fefferhead\_51 (K6), Hammy\_53 (K6), TClif\_55 (K6),

Start 33:

- Found in 23 of 549 ( 4.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 4.3% of time when present
- Phage (with cluster) where this start called: TinyDot\_55 (singleton),

Start 34:

- Found in 9 of 549 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 2 of 507
- Called 22.2% of time when present
- Phage (with cluster) where this start called: KiSi\_55 (K1), LeMond\_55 (K1),

Start 35:

- Found in 6 of 549 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 507
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Guanica15\_53 (K1), LastHope\_53 (K1),

Start 36:

- Found in 11 of 549 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 6 of 507
- Called 54.5% of time when present
- Phage (with cluster) where this start called: BoostSeason\_54 (K2), DismalFunk\_54 (K2), DismalStressor\_54 (K2), Findley\_54 (K2), Marcoliusprime\_54 (K2), Milly\_54 (K2),

Start 37:

- Found in 130 of 549 ( 23.7% ) of genes in pham
- Manual Annotations of this start: 119 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244\_94 (E), ABCat\_90 (E), Adnama\_97 (E), Amao\_93 (E), AmericanBeauty\_100 (E), Argent26\_97 (E), Asriel\_91 (E), BaboJay\_93 (E), BadStone\_90 (E), Balomoji\_93 (E), Barbarian\_92 (E), Bask21\_93 (E), Bench\_96 (E), BigBubba\_93 (E), BilboSwaggins\_92 (E), Bruin\_90 (E), Buck\_94 (E), BugsBunny\_93 (E), Cactus\_96 (E), ChosenOne\_93 (E), ChotaBhai\_93 (E), Cjw1\_94 (E), Command613\_95 (E), Contagion\_89 (E), Cookies\_90 (E), CrystalP\_92 (E), Czyszczonek\_94 (E), Daikon\_94 (E), DoctorDiddles\_92 (E), DrDrey\_93 (E), Dumbo\_93 (E), Dusk\_90 (E), Easy2Say\_94 (E), Elite2014\_92 (E), Elph10\_94 (E), Emmina\_93 (E), Eureka\_92 (E), Filch\_95 (E), FireRed\_97 (E), Flypotenuse\_89 (E), Gage\_95 (E), Gator\_91 (E), Gemini\_98 (E), Glexan\_92 (E), Goku\_92 (E), GoldenSpark\_97 (E), Goldilocks\_96 (E), GooberAzure\_96 (E), HanKaySha\_94 (E), Harella\_93 (E), Henry\_91 (E), Highbury\_92 (E), Holt\_98 (E), Hoonter\_96 (E), Hopey\_94 (E), HufflyPuff\_95 (E), IHOP\_91 (E), Icee\_94 (E), Inca\_90 (E), JeTaimie\_94 (E), Kanye\_90 (E), Kimchi\_97 (E), Kostya\_93 (E), Lilac\_96 (E), Lilizi\_94

(E), Lilpickle\_92 (E), MISSy\_94 (E), MPhalcon\_94 (E), MadamMonkfish\_93 (E), Manda\_95 (E), Marshmallow\_91 (E), Maxxinista\_96 (E), Mindy\_92 (E), Miniwave\_88 (E), Misfit\_94 (E), Moldemort\_96 (E), Mosby\_89 (E), Murica\_96 (E), Murphy\_93 (E), Myrale\_93 (E), Nala\_95 (E), NelitzaMV\_91 (E), Nimrod\_94 (E), NoSleep\_94 (E), OrionPax\_92 (E), Palpatine\_95 (E), Paperbeatsrock\_92 (E), Pat3\_90 (E), Petra64142\_98 (E), Phaja\_91 (E), Pharsalus\_90 (E), PhatBacter\_97 (E), Phaux\_96 (E), Phrux\_91 (E), Policronamos\_97 (E), Porky\_92 (E), Pumpkin\_97 (E), Quallification\_94 (E), Rakim\_94 (E), Rimmer\_91 (E), RiverMonster\_94 (E), Saints25\_92 (E), Sassay\_88 (E), ShamWow\_93 (E), ShereKhan\_91 (E), Simpliphy\_92 (E), SirDuracell\_93 (E), SophKB\_90 (E), Sotrice96\_94 (E), Stank\_95 (E), Stark\_95 (E), StellaBean\_89 (E), StolenFromERC\_96 (E), TBrady12\_96 (E), Tarkin\_92 (E), TeardropMSU\_89 (E), Teaspoon\_90 (E), Terminus\_96 (E), Thresher\_96 (E), Tomaszewski\_88 (E), Toto\_91 (E), Traaww1\_89 (E), Tuco\_94 (E), Ukulele\_88 (E), Wiggin\_95 (E), Willez\_88 (E), Xandras\_92 (E), YassJohnny\_90 (E), Youngblood\_96 (E), xkcd\_96 (E),

#### Start 38:

- Found in 11 of 549 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 3 of 507
- Called 45.5% of time when present
- Phage (with cluster) where this start called: Mufasa\_54 (K2), Strobilo\_58 (K2), TM4\_49 (K2), VWB\_44 (BA), ZoeJ\_53 (K2),

#### Start 49:

- Found in 6 of 549 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 6 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_93 (DP), Guey18\_98 (DP), Keelan\_94 (DP), Ronaldo\_96 (DP), Volt\_97 (DP), Ziko\_96 (DP),

#### Start 52:

- Found in 1 of 549 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Taj\_63 (F1),

#### Start 53:

- Found in 4 of 549 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 4 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus\_88 (L5), Baudelaire\_88 (L5), Lolly9\_78 (L3), MiniMac\_83 (L3),

#### Start 54:

- Found in 1 of 549 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RobinSparkles\_47 (CX),

#### Start 56:

- Found in 12 of 549 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 11 of 507
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Ariel\_129 (J), Courthouse\_124 (J), Gonephishing\_123 (J), Hannaconda\_122 (J), KashFlow\_127 (J), LittleE\_132 (J), Lucky2013\_124 (J), MiaZeal\_129 (J), Omega\_139 (J), Porcelain\_127 (J), Squint\_127 (J), Superphikiman\_126 (J),

Start 57:

- Found in 8 of 549 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 5 of 507
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alex44\_7 (EK1), Astartes\_7 (EK2), Dashyla\_8 (EK1), Fullmetal\_7 (EK2), Moleficent\_7 (EK2), PhriedRice\_7 (EK2), RicoCaldo\_7 (EK2), StagePhright\_7 (EK2),

Start 58:

- Found in 32 of 549 ( 5.8% ) of genes in pham
- Manual Annotations of this start: 28 of 507
- Called 96.9% of time when present
- Phage (with cluster) where this start called: BAKA\_131 (J), Bagrid\_131 (J), Beem\_133 (J), Bobby\_123 (J), Bombitas\_119 (J), Constella\_121 (J), Dallas\_132 (J), DmpstrDiver\_131 (J), Dove\_124 (J), Duke13\_126 (J), Ejimix\_125 (J), EricMillard\_123 (J), Halley\_133 (J), HokkenD\_121 (J), Hughesyang\_131 (J), JuicyJay\_128 (J), Kalah2\_122 (J), Klein\_128 (J), Minerva\_130 (J), NihilNomen\_133 (J), Odette\_133 (J), Optimus\_122 (J), Phoebus\_132 (J), Pound\_120 (J), Redno2\_123 (J), Schatzie\_127 (J), Thibault\_113 (J), ThreeRngTarjay\_127 (J), Wanda\_130 (J), Yeet\_123 (J), Zelink\_126 (J),

Start 59:

- Found in 6 of 549 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 507
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Journey\_46 (N), SkinnyPete\_42 (N),

### Summary by clusters:

There are 28 clusters represented in this pham: DO, singleton, BA, K3, K2, K1, K6, DP, I2, DN2, E, AD, AG, F, J, N, Q, CX, T, W, F1, F2, F4, F5, L5, EK2, EK1, L3,

Info for manual annotations of cluster AD:

- Start number 23 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AG:

- Start number 30 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster CX:

- Start number 54 was manually annotated 1 time for cluster CX.

Info for manual annotations of cluster DN2:

- Start number 31 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DO:

- Start number 18 was manually annotated 2 times for cluster DO.

Info for manual annotations of cluster DP:

- Start number 49 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster E:

- Start number 37 was manually annotated 119 times for cluster E.

Info for manual annotations of cluster EK1:

- Start number 57 was manually annotated 1 time for cluster EK1.

Info for manual annotations of cluster EK2:

- Start number 57 was manually annotated 4 times for cluster EK2.

Info for manual annotations of cluster F1:

- Start number 19 was manually annotated 137 times for cluster F1.
- Start number 52 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

- Start number 19 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 19 was manually annotated 2 times for cluster F4.
- Start number 23 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster F5:

- Start number 19 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I2:

- Start number 23 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster J:

- Start number 56 was manually annotated 11 times for cluster J.
- Start number 58 was manually annotated 28 times for cluster J.

Info for manual annotations of cluster K1:

- Start number 30 was manually annotated 95 times for cluster K1.
- Start number 34 was manually annotated 2 times for cluster K1.
- Start number 35 was manually annotated 2 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 36 was manually annotated 6 times for cluster K2.
- Start number 38 was manually annotated 3 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 26 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K6:

- Start number 30 was manually annotated 14 times for cluster K6.
- Start number 32 was manually annotated 7 times for cluster K6.

Info for manual annotations of cluster L3:

- Start number 53 was manually annotated 2 times for cluster L3.

Info for manual annotations of cluster L5:

- Start number 53 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster N:

- Start number 23 was manually annotated 2 times for cluster N.
- Start number 59 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster Q:

- Start number 17 was manually annotated 20 times for cluster Q.
- Start number 20 was manually annotated 2 times for cluster Q.

Info for manual annotations of cluster T:

- Start number 30 was manually annotated 6 times for cluster T.

Info for manual annotations of cluster W:

- Start number 20 was manually annotated 8 times for cluster W.

### **Gene Information:**

Gene: 244\_94 Start: 56440, Stop: 56700, Start Num: 37

Candidate Starts for 244\_94:

(Start: 37 @56440 has 119 MA's), (50, 56461), (71, 56536), (84, 56605), (97, 56671),

Gene: ABCat\_90 Start: 57128, Stop: 57388, Start Num: 37

Candidate Starts for ABCat\_90:

(Start: 37 @57128 has 119 MA's), (50, 57149), (71, 57224), (84, 57293), (97, 57359),

Gene: ActinUp\_50 Start: 37356, Stop: 37619, Start Num: 30

Candidate Starts for ActinUp\_50:

(Start: 30 @37356 has 116 MA's), (75, 37497),

Gene: Adephagia\_50 Start: 37353, Stop: 37616, Start Num: 30

Candidate Starts for Adephagia\_50:

(Start: 30 @37353 has 116 MA's), (75, 37494),

Gene: Adnama\_97 Start: 56736, Stop: 56996, Start Num: 37

Candidate Starts for Adnama\_97:

(Start: 37 @56736 has 119 MA's), (50, 56757), (71, 56832), (84, 56901), (97, 56967),

Gene: Adonis\_50 Start: 37651, Stop: 37914, Start Num: 30

Candidate Starts for Adonis\_50:

(Start: 30 @37651 has 116 MA's), (75, 37792),

Gene: Aegeus\_88 Start: 54840, Stop: 55091, Start Num: 53

Candidate Starts for Aegeus\_88:

(Start: 53 @54840 has 4 MA's), (65, 54885), (82, 54978), (93, 55032),

Gene: Ageofdapage\_52 Start: 38336, Stop: 38599, Start Num: 30

Candidate Starts for Ageofdapage\_52:

(4, 38084), (Start: 30 @38336 has 116 MA's), (61, 38390), (75, 38477),

Gene: Alex44\_7 Start: 5465, Stop: 5193, Start Num: 57  
Candidate Starts for Alex44\_7:  
(27, 5525), (Start: 57 @5465 has 5 MA's), (86, 5327), (92, 5297), (101, 5252),

Gene: Alexphander\_63 Start: 40422, Stop: 40706, Start Num: 19  
Candidate Starts for Alexphander\_63:  
(15, 40395), (Start: 19 @40422 has 146 MA's), (27, 40446), (46, 40461), (63, 40506), (65, 40518), (78, 40596), (82, 40608), (88, 40632), (90, 40644), (103, 40698),

Gene: AlishaPH\_50 Start: 37626, Stop: 37889, Start Num: 30  
Candidate Starts for AlishaPH\_50:  
(Start: 30 @37626 has 116 MA's), (75, 37767),

Gene: AlpineSix\_64 Start: 42541, Stop: 42819, Start Num: 19  
Candidate Starts for AlpineSix\_64:  
(15, 42514), (Start: 19 @42541 has 146 MA's), (64, 42625), (66, 42634), (75, 42697), (78, 42712), (82, 42724), (88, 42748), (90, 42760), (103, 42811),

Gene: Amao\_93 Start: 56248, Stop: 56508, Start Num: 37  
Candidate Starts for Amao\_93:  
(Start: 37 @56248 has 119 MA's), (50, 56269), (71, 56344), (84, 56413), (97, 56479),

Gene: Amelie\_46 Start: 37040, Stop: 37309, Start Num: 30  
Candidate Starts for Amelie\_46:  
(Start: 30 @37040 has 116 MA's), (70, 37136), (79, 37196), (81, 37202), (82, 37205), (88, 37232), (90, 37244), (102, 37298),

Gene: AmericanBeauty\_100 Start: 57297, Stop: 57557, Start Num: 37  
Candidate Starts for AmericanBeauty\_100:  
(Start: 37 @57297 has 119 MA's), (50, 57318), (71, 57393), (84, 57462), (97, 57528),

Gene: Amgine\_51 Start: 38553, Stop: 38807, Start Num: 32  
Candidate Starts for Amgine\_51:  
(5, 38403), (Start: 32 @38553 has 7 MA's), (65, 38619), (85, 38727),

Gene: Amochick\_76 Start: 49396, Stop: 49704, Start Num: 17  
Candidate Starts for Amochick\_76:  
(16, 49390), (Start: 17 @49396 has 20 MA's), (Start: 20 @49423 has 10 MA's), (33, 49456), (69, 49558), (72, 49585), (98, 49696),

Gene: Amohnition\_53 Start: 38560, Stop: 38814, Start Num: 32  
Candidate Starts for Amohnition\_53:  
(2, 38242), (4, 38311), (5, 38407), (Start: 32 @38560 has 7 MA's), (65, 38626), (75, 38689), (85, 38734),

Gene: Amymech\_75 Start: 48849, Stop: 49157, Start Num: 17  
Candidate Starts for Amymech\_75:  
(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Anaya\_52 Start: 37953, Stop: 38216, Start Num: 30  
Candidate Starts for Anaya\_52:  
(Start: 30 @37953 has 116 MA's), (61, 38007), (75, 38094), (82, 38121),



Gene: Angelica\_50 Start: 37583, Stop: 37846, Start Num: 30  
Candidate Starts for Angelica\_50:  
(Start: 30 @37583 has 116 MA's), (75, 37724),

Gene: Apocalypse\_53 Start: 38362, Stop: 38625, Start Num: 30  
Candidate Starts for Apocalypse\_53:  
(Start: 30 @38362 has 116 MA's), (75, 38503),

Gene: Argent26\_97 Start: 56657, Stop: 56917, Start Num: 37  
Candidate Starts for Argent26\_97:  
(Start: 37 @56657 has 119 MA's), (50, 56678), (71, 56753), (84, 56822), (97, 56888),

Gene: Argie\_56 Start: 45292, Stop: 45573, Start Num: 20  
Candidate Starts for Argie\_56:  
(Start: 20 @45292 has 10 MA's), (50, 45352), (67, 45409), (80, 45481), (97, 45553),

Gene: Ariel\_129 Start: 68157, Stop: 68387, Start Num: 56  
Candidate Starts for Ariel\_129:  
(Start: 56 @68157 has 11 MA's), (82, 68292), (87, 68316), (89, 68328),

Gene: Asayake\_50 Start: 37668, Stop: 37931, Start Num: 30  
Candidate Starts for Asayake\_50:  
(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: Asriel\_91 Start: 55073, Stop: 55333, Start Num: 37  
Candidate Starts for Asriel\_91:  
(Start: 37 @55073 has 119 MA's), (50, 55094), (71, 55169), (84, 55238), (97, 55304),

Gene: Astartes\_7 Start: 5219, Stop: 4962, Start Num: 57  
Candidate Starts for Astartes\_7:  
(27, 5279), (Start: 57 @5219 has 5 MA's), (75, 5105), (92, 5030), (101, 4985),

Gene: Atiba\_51 Start: 37316, Stop: 37579, Start Num: 30  
Candidate Starts for Atiba\_51:  
(Start: 30 @37316 has 116 MA's), (75, 37457),

Gene: Avani\_67 Start: 40740, Stop: 41018, Start Num: 19  
Candidate Starts for Avani\_67:  
(15, 40713), (Start: 19 @40740 has 146 MA's), (64, 40824), (66, 40833), (75, 40896), (78, 40911), (82, 40923), (88, 40947), (90, 40959), (103, 41010),

Gene: BAKA\_131 Start: 71128, Stop: 71352, Start Num: 58  
Candidate Starts for BAKA\_131:  
(Start: 58 @71128 has 28 MA's), (76, 71230), (78, 71245), (89, 71293),

Gene: BEEST\_50 Start: 37668, Stop: 37931, Start Num: 30  
Candidate Starts for BEEST\_50:  
(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: BGlluviae\_50 Start: 37471, Stop: 37734, Start Num: 30  
Candidate Starts for BGlluviae\_50:  
(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: BaboJay\_93 Start: 57319, Stop: 57579, Start Num: 37  
Candidate Starts for BaboJay\_93:  
(Start: 37 @57319 has 119 MA's), (50, 57340), (71, 57415), (84, 57484), (97, 57550),

Gene: BadStone\_90 Start: 56697, Stop: 56957, Start Num: 37  
Candidate Starts for BadStone\_90:  
(Start: 37 @56697 has 119 MA's), (50, 56718), (71, 56793), (84, 56862), (97, 56928),

Gene: BaghaKamala\_49 Start: 36791, Stop: 37054, Start Num: 30  
Candidate Starts for BaghaKamala\_49:  
(Start: 30 @36791 has 116 MA's), (75, 36932),

Gene: Bagrid\_131 Start: 71206, Stop: 71430, Start Num: 58  
Candidate Starts for Bagrid\_131:  
(Start: 58 @71206 has 28 MA's), (76, 71308), (78, 71323), (89, 71371), (92, 71383),

Gene: Balomoji\_93 Start: 56855, Stop: 57115, Start Num: 37  
Candidate Starts for Balomoji\_93:  
(6, 56717), (Start: 37 @56855 has 119 MA's), (50, 56876), (84, 57020), (97, 57086),

Gene: Barbarian\_92 Start: 55073, Stop: 55333, Start Num: 37  
Candidate Starts for Barbarian\_92:  
(Start: 37 @55073 has 119 MA's), (50, 55094), (71, 55169), (84, 55238), (97, 55304),

Gene: BarrelRoll\_50 Start: 37339, Stop: 37602, Start Num: 30  
Candidate Starts for BarrelRoll\_50:  
(Start: 30 @37339 has 116 MA's), (75, 37480),

Gene: Bask21\_93 Start: 55708, Stop: 55968, Start Num: 37  
Candidate Starts for Bask21\_93:  
(6, 55570), (Start: 37 @55708 has 119 MA's), (50, 55729), (84, 55873), (97, 55939),

Gene: Baudelaire\_88 Start: 54840, Stop: 55091, Start Num: 53  
Candidate Starts for Baudelaire\_88:  
(Start: 53 @54840 has 4 MA's), (65, 54885), (82, 54978), (93, 55032),

Gene: Beem\_133 Start: 72681, Stop: 72905, Start Num: 58  
Candidate Starts for Beem\_133:  
(44, 72654), (Start: 58 @72681 has 28 MA's), (76, 72783), (78, 72798), (89, 72846),

Gene: Beezoo\_52 Start: 38314, Stop: 38577, Start Num: 30  
Candidate Starts for Beezoo\_52:  
(Start: 30 @38314 has 116 MA's), (75, 38455),

Gene: Bella96\_51 Start: 38180, Stop: 38443, Start Num: 30  
Candidate Starts for Bella96\_51:  
(4, 37928), (Start: 30 @38180 has 116 MA's), (61, 38234), (72, 38303), (75, 38321),

Gene: Belladonna\_50 Start: 37471, Stop: 37734, Start Num: 30  
Candidate Starts for Belladonna\_50:  
(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Bench\_96 Start: 56792, Stop: 57052, Start Num: 37  
Candidate Starts for Bench\_96:  
(Start: 37 @56792 has 119 MA's), (50, 56813), (71, 56888), (84, 56957), (97, 57023),

Gene: Bernal13\_41 Start: 31446, Stop: 31703, Start Num: 30  
Candidate Starts for Bernal13\_41:  
(3, 31170), (4, 31191), (Start: 30 @31446 has 116 MA's), (65, 31530), (82, 31620),

Gene: BigBubba\_93 Start: 56089, Stop: 56349, Start Num: 37  
Candidate Starts for BigBubba\_93:  
(Start: 37 @56089 has 119 MA's), (50, 56110), (71, 56185), (84, 56254), (97, 56320),

Gene: Biglebops\_46 Start: 37040, Stop: 37309, Start Num: 30  
Candidate Starts for Biglebops\_46:  
(Start: 30 @37040 has 116 MA's), (70, 37136), (79, 37196), (81, 37202), (82, 37205), (88, 37232), (90, 37244), (102, 37298),

Gene: BilboSwaggins\_92 Start: 57094, Stop: 57354, Start Num: 37  
Candidate Starts for BilboSwaggins\_92:  
(Start: 37 @57094 has 119 MA's), (50, 57115), (71, 57190), (84, 57259), (97, 57325),

Gene: Blarby\_71 Start: 41835, Stop: 42119, Start Num: 19  
Candidate Starts for Blarby\_71:  
(15, 41808), (Start: 19 @41835 has 146 MA's), (27, 41859), (46, 41874), (63, 41919), (65, 41931), (78, 42009), (82, 42021), (88, 42045), (90, 42057), (103, 42111),

Gene: Blexus\_57 Start: 40392, Stop: 40673, Start Num: 19  
Candidate Starts for Blexus\_57:  
(15, 40365), (Start: 19 @40392 has 146 MA's), (27, 40416), (46, 40431), (63, 40476), (65, 40488), (78, 40566), (82, 40578), (88, 40602), (90, 40614), (103, 40665),

Gene: Blizzard\_50 Start: 37668, Stop: 37931, Start Num: 30  
Candidate Starts for Blizzard\_50:  
(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: BlueCrab\_59 Start: 40700, Stop: 40978, Start Num: 19  
Candidate Starts for BlueCrab\_59:  
(15, 40673), (Start: 19 @40700 has 146 MA's), (27, 40724), (43, 40736), (63, 40781), (65, 40793), (82, 40883), (88, 40907), (90, 40919), (103, 40970),

Gene: BobaPhett\_63 Start: 42651, Stop: 42935, Start Num: 19  
Candidate Starts for BobaPhett\_63:  
(15, 42624), (Start: 19 @42651 has 146 MA's), (27, 42675), (46, 42690), (63, 42735), (65, 42747), (78, 42825), (82, 42837), (88, 42861), (90, 42873), (103, 42927),

Gene: Bobby\_123 Start: 72782, Stop: 73006, Start Num: 58  
Candidate Starts for Bobby\_123:  
(Start: 58 @72782 has 28 MA's), (76, 72884), (78, 72899), (89, 72947),

Gene: BodEinwohner17\_59 Start: 39462, Stop: 39740, Start Num: 19  
Candidate Starts for BodEinwohner17\_59:  
(15, 39435), (Start: 19 @39462 has 146 MA's), (64, 39546), (66, 39555), (75, 39618), (78, 39633), (82, 39645), (88, 39669), (90, 39681), (103, 39732),

Gene: Boiiii\_50 Start: 37670, Stop: 37933, Start Num: 30

Candidate Starts for Boiiii\_50:

(Start: 30 @37670 has 116 MA's), (75, 37811),

Gene: Bombitas\_119 Start: 70092, Stop: 70316, Start Num: 58

Candidate Starts for Bombitas\_119:

(44, 70065), (Start: 58 @70092 has 28 MA's), (76, 70194), (78, 70209), (89, 70257),

Gene: Boomer\_64 Start: 42326, Stop: 42610, Start Num: 19

Candidate Starts for Boomer\_64:

(15, 42299), (Start: 19 @42326 has 146 MA's), (27, 42350), (46, 42365), (63, 42410), (65, 42422), (78, 42500), (82, 42512), (88, 42536), (90, 42548), (103, 42602),

Gene: BoostSeason\_54 Start: 39128, Stop: 39364, Start Num: 36

Candidate Starts for BoostSeason\_54:

(Start: 36 @39128 has 6 MA's), (Start: 38 @39131 has 3 MA's), (42, 39137), (47, 39143), (72, 39233), (73, 39239), (88, 39302), (102, 39353),

Gene: Brocalys\_54 Start: 36836, Stop: 37117, Start Num: 19

Candidate Starts for Brocalys\_54:

(15, 36809), (Start: 19 @36836 has 146 MA's), (27, 36860), (46, 36875), (63, 36920), (65, 36932), (78, 37010), (82, 37022), (88, 37046), (90, 37058), (103, 37109),

Gene: Bruin\_90 Start: 55671, Stop: 55931, Start Num: 37

Candidate Starts for Bruin\_90:

(Start: 37 @55671 has 119 MA's), (50, 55692), (71, 55767), (84, 55836), (97, 55902),

Gene: Bryler\_54 Start: 37154, Stop: 37411, Start Num: 30

Candidate Starts for Bryler\_54:

(Start: 30 @37154 has 116 MA's), (40, 37175), (65, 37229), (75, 37292), (77, 37301), (95, 37379),

Gene: Buck\_94 Start: 57360, Stop: 57620, Start Num: 37

Candidate Starts for Buck\_94:

(6, 57222), (Start: 37 @57360 has 119 MA's), (50, 57381), (84, 57525), (97, 57591),

Gene: BugsBunny\_93 Start: 57200, Stop: 57460, Start Num: 37

Candidate Starts for BugsBunny\_93:

(Start: 37 @57200 has 119 MA's), (50, 57221), (71, 57296), (84, 57365), (97, 57431),

Gene: Burwell21\_57 Start: 39934, Stop: 40218, Start Num: 19

Candidate Starts for Burwell21\_57:

(15, 39907), (Start: 19 @39934 has 146 MA's), (27, 39958), (46, 39973), (63, 40018), (65, 40030), (78, 40108), (82, 40120), (88, 40144), (90, 40156), (103, 40210),

Gene: BuzzLyseyear\_65 Start: 41358, Stop: 41639, Start Num: 19

Candidate Starts for BuzzLyseyear\_65:

(15, 41331), (Start: 19 @41358 has 146 MA's), (27, 41382), (46, 41397), (63, 41442), (65, 41454), (78, 41532), (82, 41544), (88, 41568), (90, 41580), (103, 41631),

Gene: ByChance\_51 Start: 35625, Stop: 35906, Start Num: 19

Candidate Starts for ByChance\_51:

(15, 35598), (Start: 19 @35625 has 146 MA's), (27, 35649), (43, 35661), (63, 35706), (65, 35718), (78, 35796), (82, 35808), (88, 35832), (90, 35844), (103, 35898),

Gene: Byougenkin\_57 Start: 39701, Stop: 39982, Start Num: 19

Candidate Starts for Byougenkin\_57:

(15, 39674), (Start: 19 @39701 has 146 MA's), (27, 39725), (46, 39740), (63, 39785), (65, 39797), (78, 39875), (82, 39887), (88, 39911), (90, 39923), (103, 39974),

Gene: CREW\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for CREW\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Cabrinians\_60 Start: 40012, Stop: 40296, Start Num: 19

Candidate Starts for Cabrinians\_60:

(15, 39985), (Start: 19 @40012 has 146 MA's), (27, 40036), (46, 40051), (63, 40096), (65, 40108), (78, 40186), (82, 40198), (88, 40222), (90, 40234), (103, 40288),

Gene: Cactus\_96 Start: 55737, Stop: 55997, Start Num: 37

Candidate Starts for Cactus\_96:

(Start: 37 @55737 has 119 MA's), (50, 55758), (71, 55833), (84, 55902), (97, 55968),

Gene: Cain\_54 Start: 37142, Stop: 37399, Start Num: 30

Candidate Starts for Cain\_54:

(Start: 30 @37142 has 116 MA's), (40, 37163), (65, 37217), (75, 37280), (77, 37289), (95, 37367),

Gene: Capricorn\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for Capricorn\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: CaptainTrips\_56 Start: 39508, Stop: 39792, Start Num: 19

Candidate Starts for CaptainTrips\_56:

(Start: 19 @39508 has 146 MA's), (27, 39532), (46, 39547), (63, 39592), (65, 39604), (78, 39682), (82, 39694), (88, 39718), (90, 39730), (103, 39784),

Gene: CaseJules\_52 Start: 37668, Stop: 37931, Start Num: 30

Candidate Starts for CaseJules\_52:

(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: Cepens\_55 Start: 45007, Stop: 45288, Start Num: 20

Candidate Starts for Cepens\_55:

(Start: 20 @45007 has 10 MA's), (50, 45067), (67, 45124), (80, 45196), (97, 45268),

Gene: Charlie\_44 Start: 30217, Stop: 30516, Start Num: 23

Candidate Starts for Charlie\_44:

(Start: 23 @30217 has 6 MA's), (Start: 31 @30235 has 1 MA's), (51, 30271), (Start: 59 @30286 has 1 MA's), (75, 30382), (88, 30433), (94, 30469), (101, 30502), (103, 30508),

Gene: CheetoDust\_49 Start: 36840, Stop: 37103, Start Num: 30

Candidate Starts for CheetoDust\_49:

(Start: 30 @36840 has 116 MA's), (75, 36981),

Gene: CherryTomatoes\_56 Start: 18497, Stop: 18778, Start Num: 18

Candidate Starts for CherryTomatoes\_56:

(Start: 18 @18497 has 2 MA's), (24, 18533), (65, 18608),

Gene: ChosenOne\_93 Start: 56152, Stop: 56412, Start Num: 37

Candidate Starts for ChosenOne\_93:

(Start: 37 @56152 has 119 MA's), (50, 56173), (71, 56248), (84, 56317), (97, 56383),

Gene: ChotaBhai\_93 Start: 56073, Stop: 56333, Start Num: 37

Candidate Starts for ChotaBhai\_93:

(6, 55935), (Start: 37 @56073 has 119 MA's), (50, 56094), (84, 56238), (97, 56304),

Gene: Chris\_53 Start: 38292, Stop: 38561, Start Num: 30

Candidate Starts for Chris\_53:

(Start: 30 @38292 has 116 MA's), (85, 38466), (104, 38547), (105, 38550),

Gene: Chuckly\_62 Start: 40654, Stop: 40938, Start Num: 19

Candidate Starts for Chuckly\_62:

(15, 40627), (Start: 19 @40654 has 146 MA's), (27, 40678), (46, 40693), (63, 40738), (65, 40750), (78, 40828), (82, 40840), (88, 40864), (90, 40876), (103, 40930),

Gene: Chymera\_48 Start: 30948, Stop: 31208, Start Num: 23

Candidate Starts for Chymera\_48:

(Start: 23 @30948 has 6 MA's), (24, 30954), (29, 30960), (88, 31149),

Gene: Cjw1\_94 Start: 58116, Stop: 58376, Start Num: 37

Candidate Starts for Cjw1\_94:

(Start: 37 @58116 has 119 MA's), (50, 58137), (71, 58212), (84, 58281), (97, 58347),

Gene: Clifton\_54 Start: 37187, Stop: 37468, Start Num: 19

Candidate Starts for Clifton\_54:

(15, 37160), (Start: 19 @37187 has 146 MA's), (27, 37211), (46, 37226), (63, 37271), (65, 37283), (78, 37361), (82, 37373), (88, 37397), (90, 37409), (103, 37460),

Gene: Command613\_95 Start: 57191, Stop: 57451, Start Num: 37

Candidate Starts for Command613\_95:

(Start: 37 @57191 has 119 MA's), (50, 57212), (71, 57287), (84, 57356), (97, 57422),

Gene: Constella\_121 Start: 68215, Stop: 68439, Start Num: 58

Candidate Starts for Constella\_121:

(Start: 58 @68215 has 28 MA's), (76, 68317), (78, 68332), (89, 68380),

Gene: Contagion\_89 Start: 55952, Stop: 56212, Start Num: 37

Candidate Starts for Contagion\_89:

(Start: 37 @55952 has 119 MA's), (50, 55973), (71, 56048), (84, 56117), (97, 56183),

Gene: Cookies\_90 Start: 55930, Stop: 56190, Start Num: 37

Candidate Starts for Cookies\_90:

(6, 55792), (Start: 37 @55930 has 119 MA's), (50, 55951), (84, 56095), (97, 56161),

Gene: Cornie\_55 Start: 38439, Stop: 38717, Start Num: 19

Candidate Starts for Cornie\_55:

(12, 38403), (Start: 19 @38439 has 146 MA's), (27, 38463), (63, 38520), (65, 38532), (78, 38610), (82, 38622), (88, 38646), (90, 38658), (103, 38709),

Gene: Cornucopia\_61 Start: 40668, Stop: 40946, Start Num: 19

Candidate Starts for Cornucopia\_61:

(15, 40641), (Start: 19 @40668 has 146 MA's), (64, 40752), (66, 40761), (75, 40824), (78, 40839), (82, 40851), (88, 40875), (90, 40887), (103, 40938),

Gene: Courthouse\_124 Start: 67757, Stop: 67984, Start Num: 56

Candidate Starts for Courthouse\_124:

(Start: 56 @67757 has 11 MA's), (82, 67892), (87, 67916), (89, 67928),

Gene: CrimD\_50 Start: 37577, Stop: 37840, Start Num: 30

Candidate Starts for CrimD\_50:

(Start: 30 @37577 has 116 MA's), (61, 37631), (75, 37718),

Gene: Crumble\_54 Start: 35948, Stop: 36232, Start Num: 19

Candidate Starts for Crumble\_54:

(15, 35921), (Start: 19 @35948 has 146 MA's), (27, 35972), (46, 35987), (63, 36032), (65, 36044), (78, 36122), (82, 36134), (88, 36158), (90, 36170), (103, 36224),

Gene: CrystalP\_92 Start: 57094, Stop: 57354, Start Num: 37

Candidate Starts for CrystalP\_92:

(Start: 37 @57094 has 119 MA's), (50, 57115), (71, 57190), (84, 57259), (97, 57325),

Gene: Curiosium\_52 Start: 36255, Stop: 36521, Start Num: 30

Candidate Starts for Curiosium\_52:

(Start: 30 @36255 has 116 MA's), (Start: 35 @36267 has 2 MA's), (61, 36312), (75, 36399), (95, 36489),

Gene: Czyszczone1\_94 Start: 56655, Stop: 56915, Start Num: 37

Candidate Starts for Czyszczone1\_94:

(Start: 37 @56655 has 119 MA's), (50, 56676), (71, 56751), (84, 56820), (97, 56886),

Gene: D12\_54 Start: 45555, Stop: 45836, Start Num: 20

Candidate Starts for D12\_54:

(Start: 20 @45555 has 10 MA's), (50, 45615), (67, 45672), (80, 45744), (97, 45816),

Gene: DRBy19\_62 Start: 41112, Stop: 41393, Start Num: 19

Candidate Starts for DRBy19\_62:

(15, 41085), (Start: 19 @41112 has 146 MA's), (64, 41196), (66, 41205), (75, 41268), (78, 41283), (82, 41295), (88, 41319), (90, 41331), (103, 41385),

Gene: DaWorst\_60 Start: 40413, Stop: 40697, Start Num: 19

Candidate Starts for DaWorst\_60:

(15, 40386), (Start: 19 @40413 has 146 MA's), (27, 40437), (46, 40452), (63, 40497), (78, 40587), (82, 40599), (88, 40623), (90, 40635), (103, 40689),

Gene: DaddyRickover\_58 Start: 40151, Stop: 40435, Start Num: 19

Candidate Starts for DaddyRickover\_58:

(15, 40124), (Start: 19 @40151 has 146 MA's), (27, 40175), (46, 40190), (63, 40235), (65, 40247), (78, 40325), (82, 40337), (88, 40361), (90, 40373), (103, 40427),

Gene: Daegal\_77 Start: 49955, Stop: 50263, Start Num: 17

Candidate Starts for Daegal\_77:

(14, 49937), (16, 49949), (Start: 17 @49955 has 20 MA's), (Start: 20 @49982 has 10 MA's), (33, 50015), (69, 50117), (72, 50144), (98, 50255),

Gene: Daenerys\_53 Start: 38267, Stop: 38545, Start Num: 19

Candidate Starts for Daenerys\_53:

(15, 38240), (Start: 19 @38267 has 146 MA's), (64, 38351), (66, 38360), (75, 38423), (78, 38438), (82, 38450), (88, 38474), (90, 38486), (103, 38537),

Gene: Daikon\_94 Start: 56682, Stop: 56942, Start Num: 37

Candidate Starts for Daikon\_94:

(6, 56544), (Start: 37 @56682 has 119 MA's), (50, 56703), (84, 56847), (97, 56913),

Gene: Dallas\_132 Start: 72193, Stop: 72417, Start Num: 58

Candidate Starts for Dallas\_132:

(Start: 58 @72193 has 28 MA's), (76, 72295), (78, 72310), (89, 72358),

Gene: Dalmuri\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for Dalmuri\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Dante\_60 Start: 39936, Stop: 40220, Start Num: 19

Candidate Starts for Dante\_60:

(15, 39909), (Start: 19 @39936 has 146 MA's), (27, 39960), (46, 39975), (63, 40020), (65, 40032), (78, 40110), (82, 40122), (88, 40146), (90, 40158), (103, 40212),

Gene: DARTH\_53 Start: 38444, Stop: 38698, Start Num: 32

Candidate Starts for DARTH\_53:

(2, 38126), (4, 38195), (5, 38291), (Start: 32 @38444 has 7 MA's), (65, 38510), (75, 38573), (85, 38618),

Gene: Dashyla\_8 Start: 5471, Stop: 5202, Start Num: 57

Candidate Starts for Dashyla\_8:

(27, 5531), (Start: 57 @5471 has 5 MA's), (86, 5333), (92, 5303), (101, 5258),

Gene: DeadP\_65 Start: 42582, Stop: 42848, Start Num: 19

Candidate Starts for DeadP\_65:

(Start: 19 @42582 has 146 MA's), (27, 42606), (46, 42621), (63, 42666), (65, 42678), (78, 42756), (82, 42768), (88, 42792),

Gene: Deby\_50 Start: 37599, Stop: 37862, Start Num: 30

Candidate Starts for Deby\_50:

(Start: 30 @37599 has 116 MA's), (61, 37653), (75, 37740),

Gene: DeepSoil15\_75 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for DeepSoil15\_75:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Demsculpinboyz\_70 Start: 39936, Stop: 40217, Start Num: 19

Candidate Starts for Demsculpinboyz\_70:

(13, 39900), (Start: 19 @39936 has 146 MA's), (Start: 23 @39951 has 6 MA's), (46, 39975), (63, 40020), (65, 40032), (88, 40146), (90, 40158), (103, 40209),



Gene: Devera\_55 Start: 38103, Stop: 38366, Start Num: 30  
Candidate Starts for Devera\_55:  
(4, 37851), (Start: 30 @38103 has 116 MA's), (61, 38157), (75, 38244),

Gene: Dewey\_68 Start: 48849, Stop: 49157, Start Num: 17  
Candidate Starts for Dewey\_68:  
(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: DillTech15\_56 Start: 38601, Stop: 38879, Start Num: 19  
Candidate Starts for DillTech15\_56:  
(15, 38574), (Start: 19 @38601 has 146 MA's), (64, 38685), (66, 38694), (75, 38757), (78, 38772), (82, 38784), (88, 38808), (90, 38820), (103, 38871),

Gene: DirtMcgirt\_58 Start: 38676, Stop: 38960, Start Num: 19  
Candidate Starts for DirtMcgirt\_58:  
(15, 38649), (Start: 19 @38676 has 146 MA's), (27, 38700), (46, 38715), (63, 38760), (65, 38772), (78, 38850), (82, 38862), (88, 38886), (90, 38898), (103, 38952),

Gene: DismalFunk\_54 Start: 39559, Stop: 39792, Start Num: 36  
Candidate Starts for DismalFunk\_54:  
(Start: 36 @39559 has 6 MA's), (Start: 38 @39562 has 3 MA's), (42, 39568), (47, 39574), (72, 39664), (73, 39670), (88, 39733),

Gene: DismalStressor\_54 Start: 39559, Stop: 39792, Start Num: 36  
Candidate Starts for DismalStressor\_54:  
(Start: 36 @39559 has 6 MA's), (Start: 38 @39562 has 3 MA's), (42, 39568), (47, 39574), (72, 39664), (73, 39670), (88, 39733),

Gene: DmpstrDiver\_131 Start: 71495, Stop: 71719, Start Num: 58  
Candidate Starts for DmpstrDiver\_131:  
(Start: 58 @71495 has 28 MA's), (76, 71597), (78, 71612), (89, 71660), (92, 71672),

Gene: DoctorDiddles\_92 Start: 56117, Stop: 56377, Start Num: 37  
Candidate Starts for DoctorDiddles\_92:  
(6, 55979), (Start: 37 @56117 has 119 MA's), (50, 56138), (84, 56282), (97, 56348),

Gene: Dole\_53 Start: 38105, Stop: 38368, Start Num: 30  
Candidate Starts for Dole\_53:  
(4, 37853), (Start: 30 @38105 has 116 MA's), (61, 38159), (75, 38246),

Gene: Doomphist\_59 Start: 41112, Stop: 41390, Start Num: 19  
Candidate Starts for Doomphist\_59:  
(15, 41085), (Start: 19 @41112 has 146 MA's), (64, 41196), (66, 41205), (75, 41268), (78, 41283), (82, 41295), (88, 41319), (90, 41331), (103, 41382),

Gene: Dorothy\_57 Start: 39331, Stop: 39609, Start Num: 19  
Candidate Starts for Dorothy\_57:  
(15, 39304), (Start: 19 @39331 has 146 MA's), (64, 39415), (66, 39424), (75, 39487), (78, 39502), (82, 39514), (88, 39538), (90, 39550), (103, 39601),

Gene: DosHalletts\_65 Start: 41467, Stop: 41745, Start Num: 19  
Candidate Starts for DosHalletts\_65:

(15, 41440), (Start: 19 @41467 has 146 MA's), (64, 41551), (66, 41560), (75, 41623), (78, 41638), (82, 41650), (88, 41674), (90, 41686), (103, 41737),

Gene: Doug\_61 Start: 40679, Stop: 40963, Start Num: 19

Candidate Starts for Doug\_61:

(15, 40652), (Start: 19 @40679 has 146 MA's), (27, 40703), (46, 40718), (63, 40763), (65, 40775), (78, 40853), (82, 40865), (88, 40889), (90, 40901), (103, 40955),

Gene: Dove\_124 Start: 67139, Stop: 67363, Start Num: 58

Candidate Starts for Dove\_124:

(Start: 58 @67139 has 28 MA's), (76, 67241), (78, 67256), (89, 67304),

Gene: DrDrey\_93 Start: 57574, Stop: 57834, Start Num: 37

Candidate Starts for DrDrey\_93:

(Start: 37 @57574 has 119 MA's), (50, 57595), (71, 57670), (84, 57739), (97, 57805),

Gene: DrHayes\_51 Start: 38242, Stop: 38505, Start Num: 30

Candidate Starts for DrHayes\_51:

(4, 37990), (Start: 30 @38242 has 116 MA's), (61, 38296), (72, 38365), (75, 38383),

Gene: Drago\_57 Start: 38679, Stop: 38963, Start Num: 19

Candidate Starts for Drago\_57:

(15, 38652), (Start: 19 @38679 has 146 MA's), (27, 38703), (46, 38718), (63, 38763), (65, 38775), (78, 38853), (82, 38865), (88, 38889), (90, 38901), (103, 38955),

Gene: Duke13\_126 Start: 68796, Stop: 69020, Start Num: 58

Candidate Starts for Duke13\_126:

(Start: 58 @68796 has 28 MA's), (76, 68898), (78, 68913), (89, 68961),

Gene: Dumbo\_93 Start: 56054, Stop: 56314, Start Num: 37

Candidate Starts for Dumbo\_93:

(Start: 37 @56054 has 119 MA's), (50, 56075), (71, 56150), (84, 56219), (97, 56285),

Gene: Durfee\_50 Start: 37668, Stop: 37931, Start Num: 30

Candidate Starts for Durfee\_50:

(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: Dusk\_90 Start: 56357, Stop: 56617, Start Num: 37

Candidate Starts for Dusk\_90:

(Start: 37 @56357 has 119 MA's), (50, 56378), (71, 56453), (84, 56522), (97, 56588),

Gene: Easy2Say\_94 Start: 57556, Stop: 57816, Start Num: 37

Candidate Starts for Easy2Say\_94:

(Start: 37 @57556 has 119 MA's), (50, 57577), (71, 57652), (84, 57721), (97, 57787),

Gene: Efra2\_53 Start: 37187, Stop: 37450, Start Num: 30

Candidate Starts for Efra2\_53:

(Start: 30 @37187 has 116 MA's), (Start: 35 @37199 has 2 MA's), (72, 37310), (75, 37328),

Gene: Ein37\_75 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for Ein37\_75:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Eish\_63 Start: 40928, Stop: 41212, Start Num: 19

Candidate Starts for Eish\_63:

(15, 40901), (Start: 19 @40928 has 146 MA's), (27, 40952), (46, 40967), (63, 41012), (78, 41102), (82, 41114), (88, 41138), (90, 41150), (103, 41204),

Gene: Ejimix\_125 Start: 72261, Stop: 72485, Start Num: 58

Candidate Starts for Ejimix\_125:

(Start: 58 @72261 has 28 MA's), (76, 72363), (78, 72378), (89, 72426),

Gene: Ekdilam\_50 Start: 37991, Stop: 38245, Start Num: 32

Candidate Starts for Ekdilam\_50:

(2, 37673), (4, 37742), (5, 37838), (Start: 32 @37991 has 7 MA's), (75, 38120), (85, 38165),

Gene: EleanorGeorge\_60 Start: 40795, Stop: 41076, Start Num: 19

Candidate Starts for EleanorGeorge\_60:

(15, 40768), (Start: 19 @40795 has 146 MA's), (27, 40819), (46, 40834), (63, 40879), (65, 40891), (78, 40969), (82, 40981), (88, 41005), (90, 41017), (103, 41068),

Gene: Elite2014\_92 Start: 56151, Stop: 56411, Start Num: 37

Candidate Starts for Elite2014\_92:

(Start: 37 @56151 has 119 MA's), (50, 56172), (71, 56247), (84, 56316), (97, 56382),

Gene: Ellie\_49 Start: 37741, Stop: 37995, Start Num: 32

Candidate Starts for Ellie\_49:

(5, 37591), (Start: 32 @37741 has 7 MA's), (65, 37807), (85, 37915), (95, 37960),

Gene: Elph10\_94 Start: 56144, Stop: 56404, Start Num: 37

Candidate Starts for Elph10\_94:

(Start: 37 @56144 has 119 MA's), (50, 56165), (71, 56240), (84, 56309), (97, 56375),

Gene: Emerson\_51 Start: 37347, Stop: 37610, Start Num: 30

Candidate Starts for Emerson\_51:

(Start: 30 @37347 has 116 MA's), (75, 37488),

Gene: Emmina\_93 Start: 55777, Stop: 56037, Start Num: 37

Candidate Starts for Emmina\_93:

(Start: 37 @55777 has 119 MA's), (50, 55798), (71, 55873), (84, 55942), (97, 56008),

Gene: Empress\_57 Start: 39681, Stop: 39959, Start Num: 19

Candidate Starts for Empress\_57:

(15, 39654), (Start: 19 @39681 has 146 MA's), (64, 39765), (66, 39774), (75, 39837), (78, 39852), (82, 39864), (88, 39888), (90, 39900), (103, 39951),

Gene: Enby\_60 Start: 38955, Stop: 39239, Start Num: 19

Candidate Starts for Enby\_60:

(Start: 19 @38955 has 146 MA's), (27, 38979), (46, 38994), (63, 39039), (65, 39051), (78, 39129), (82, 39141), (88, 39165), (90, 39177), (103, 39231),

Gene: Enkosi\_48 Start: 39653, Stop: 39922, Start Num: 30

Candidate Starts for Enkosi\_48:

(Start: 30 @39653 has 116 MA's), (70, 39749), (79, 39809), (81, 39815), (82, 39818), (88, 39845), (90, 39857), (102, 39911),

Gene: Eradicator\_52 Start: 38208, Stop: 38489, Start Num: 19

Candidate Starts for Eradicator\_52:

(15, 38181), (Start: 19 @38208 has 146 MA's), (27, 38232), (46, 38247), (63, 38292), (65, 38304), (78, 38382), (82, 38394), (88, 38418), (90, 38430), (103, 38481),

Gene: EricMillard\_123 Start: 70765, Stop: 70989, Start Num: 58

Candidate Starts for EricMillard\_123:

(Start: 58 @70765 has 28 MA's), (76, 70867), (78, 70882), (89, 70930),

Gene: Estave1\_62 Start: 41132, Stop: 41410, Start Num: 19

Candidate Starts for Estave1\_62:

(15, 41105), (Start: 19 @41132 has 146 MA's), (64, 41216), (66, 41225), (75, 41288), (78, 41303), (82, 41315), (88, 41339), (90, 41351), (103, 41402),

Gene: Eureka\_92 Start: 57064, Stop: 57324, Start Num: 37

Candidate Starts for Eureka\_92:

(Start: 37 @57064 has 119 MA's), (50, 57085), (71, 57160), (84, 57229), (97, 57295),

Gene: Evanesce\_74 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for Evanesce\_74:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Fancypants\_61 Start: 40646, Stop: 40930, Start Num: 19

Candidate Starts for Fancypants\_61:

(15, 40619), (Start: 19 @40646 has 146 MA's), (27, 40670), (46, 40685), (63, 40730), (65, 40742), (78, 40820), (82, 40832), (88, 40856), (90, 40868), (103, 40922),

Gene: Fastidio\_58 Start: 38748, Stop: 39026, Start Num: 19

Candidate Starts for Fastidio\_58:

(15, 38721), (Start: 19 @38748 has 146 MA's), (64, 38832), (66, 38841), (75, 38904), (78, 38919), (82, 38931), (88, 38955), (90, 38967), (103, 39018),

Gene: Fefferhead\_51 Start: 37691, Stop: 37945, Start Num: 32

Candidate Starts for Fefferhead\_51:

(5, 37541), (Start: 32 @37691 has 7 MA's), (65, 37757), (85, 37865), (95, 37910),

Gene: Filch\_95 Start: 56349, Stop: 56609, Start Num: 37

Candidate Starts for Filch\_95:

(Start: 37 @56349 has 119 MA's), (50, 56370), (71, 56445), (84, 56514), (97, 56580),

Gene: Findley\_54 Start: 39552, Stop: 39785, Start Num: 36

Candidate Starts for Findley\_54:

(Start: 36 @39552 has 6 MA's), (Start: 38 @39555 has 3 MA's), (42, 39561), (47, 39567), (72, 39657), (73, 39663), (88, 39726),

Gene: FireRed\_97 Start: 57367, Stop: 57627, Start Num: 37

Candidate Starts for FireRed\_97:

(Start: 37 @57367 has 119 MA's), (50, 57388), (71, 57463), (84, 57532), (97, 57598),

Gene: Firehouse51\_60 Start: 43530, Stop: 43814, Start Num: 19

Candidate Starts for Firehouse51\_60:

(15, 43503), (Start: 19 @43530 has 146 MA's), (27, 43554), (46, 43569), (63, 43614), (65, 43626), (78, 43704), (82, 43716), (88, 43740), (90, 43752), (103, 43806),

Gene: Flypotenuse\_89 Start: 55727, Stop: 55987, Start Num: 37

Candidate Starts for Flypotenuse\_89:

(Start: 37 @55727 has 119 MA's), (50, 55748), (71, 55823), (84, 55892), (97, 55958),

Gene: Footloose\_55 Start: 31826, Stop: 32083, Start Num: 21

Candidate Starts for Footloose\_55:

(Start: 21 @31826 has 1 MA's), (25, 31838),

Gene: Forge\_68 Start: 48876, Stop: 49157, Start Num: 20

Candidate Starts for Forge\_68:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: FreddyB\_60 Start: 38860, Stop: 39141, Start Num: 19

Candidate Starts for FreddyB\_60:

(15, 38833), (Start: 19 @38860 has 146 MA's), (27, 38884), (46, 38899), (63, 38944), (65, 38956), (78, 39034), (82, 39046), (88, 39070), (90, 39082), (103, 39133),

Gene: Fryberger\_93 Start: 47445, Stop: 47750, Start Num: 49

Candidate Starts for Fryberger\_93:

(Start: 49 @47445 has 6 MA's), (61, 47478), (96, 47679), (104, 47703),

Gene: Fullmetal\_7 Start: 5216, Stop: 4959, Start Num: 57

Candidate Starts for Fullmetal\_7:

(27, 5276), (Start: 57 @5216 has 5 MA's), (75, 5102), (92, 5027), (101, 4982),

Gene: GUmbie\_57 Start: 39435, Stop: 39716, Start Num: 19

Candidate Starts for GUmbie\_57:

(15, 39408), (Start: 19 @39435 has 146 MA's), (27, 39459), (46, 39474), (63, 39519), (65, 39531), (78, 39609), (82, 39621), (88, 39645), (90, 39657), (103, 39708),

Gene: Gage\_95 Start: 56798, Stop: 57058, Start Num: 37

Candidate Starts for Gage\_95:

(Start: 37 @56798 has 119 MA's), (50, 56819), (71, 56894), (84, 56963), (97, 57029),

Gene: Galactic\_58 Start: 39901, Stop: 40179, Start Num: 19

Candidate Starts for Galactic\_58:

(15, 39874), (Start: 19 @39901 has 146 MA's), (64, 39985), (66, 39994), (75, 40057), (78, 40072), (82, 40084), (88, 40108), (90, 40120), (103, 40171),

Gene: Gancho\_74 Start: 48624, Stop: 48932, Start Num: 17

Candidate Starts for Gancho\_74:

(16, 48618), (Start: 17 @48624 has 20 MA's), (Start: 20 @48651 has 10 MA's), (33, 48684), (69, 48786), (98, 48924),

Gene: Gandalph\_62 Start: 40257, Stop: 40538, Start Num: 19

Candidate Starts for Gandalph\_62:

(15, 40230), (Start: 19 @40257 has 146 MA's), (27, 40281), (46, 40296), (63, 40341), (65, 40353), (78, 40431), (82, 40443), (88, 40467), (90, 40479), (103, 40530),

Gene: Ganymede\_51 Start: 37786, Stop: 38049, Start Num: 30  
Candidate Starts for Ganymede\_51:  
(Start: 30 @37786 has 116 MA's), (75, 37927),

Gene: Gator\_91 Start: 56582, Stop: 56842, Start Num: 37  
Candidate Starts for Gator\_91:  
(6, 56444), (Start: 37 @56582 has 119 MA's), (50, 56603), (84, 56747), (97, 56813),

Gene: Gemini\_98 Start: 57174, Stop: 57434, Start Num: 37  
Candidate Starts for Gemini\_98:  
(Start: 37 @57174 has 119 MA's), (50, 57195), (71, 57270), (84, 57339), (97, 57405),

Gene: Geraldini\_53 Start: 38403, Stop: 38666, Start Num: 30  
Candidate Starts for Geraldini\_53:  
(Start: 30 @38403 has 116 MA's), (61, 38457), (62, 38463), (75, 38544),

Gene: GigiOuiOui\_55 Start: 38875, Stop: 39156, Start Num: 19  
Candidate Starts for GigiOuiOui\_55:  
(15, 38848), (Start: 19 @38875 has 146 MA's), (27, 38899), (46, 38914), (63, 38959), (65, 38971), (75, 39034), (78, 39049), (82, 39061), (88, 39085), (90, 39097), (103, 39148),

Gene: Giles\_68 Start: 48849, Stop: 49157, Start Num: 17  
Candidate Starts for Giles\_68:  
(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Girr\_57 Start: 39742, Stop: 40020, Start Num: 19  
Candidate Starts for Girr\_57:  
(15, 39715), (Start: 19 @39742 has 146 MA's), (64, 39826), (66, 39835), (75, 39898), (78, 39913), (82, 39925), (88, 39949), (90, 39961), (103, 40012),

Gene: Glexan\_92 Start: 56857, Stop: 57117, Start Num: 37  
Candidate Starts for Glexan\_92:  
(Start: 37 @56857 has 119 MA's), (50, 56878), (71, 56953), (84, 57022), (97, 57088),

Gene: GodPhather\_56 Start: 45795, Stop: 46076, Start Num: 20  
Candidate Starts for GodPhather\_56:  
(Start: 20 @45795 has 10 MA's), (50, 45855), (67, 45912), (80, 45984), (97, 46056),

Gene: Goku\_92 Start: 56793, Stop: 57053, Start Num: 37  
Candidate Starts for Goku\_92:  
(Start: 37 @56793 has 119 MA's), (50, 56814), (71, 56889), (84, 56958), (97, 57024),

Gene: GoldenSpark\_97 Start: 56657, Stop: 56917, Start Num: 37  
Candidate Starts for GoldenSpark\_97:  
(Start: 37 @56657 has 119 MA's), (50, 56678), (71, 56753), (84, 56822), (97, 56888),

Gene: Goldilocks\_96 Start: 56015, Stop: 56275, Start Num: 37  
Candidate Starts for Goldilocks\_96:  
(Start: 37 @56015 has 119 MA's), (50, 56036), (71, 56111), (84, 56180), (97, 56246),

Gene: Gonephishing\_123 Start: 67355, Stop: 67585, Start Num: 56  
Candidate Starts for Gonephishing\_123:

(Start: 56 @67355 has 11 MA's), (82, 67490), (87, 67514), (89, 67526),

Gene: GooberAzure\_96 Start: 56657, Stop: 56917, Start Num: 37

Candidate Starts for GooberAzure\_96:

(Start: 37 @56657 has 119 MA's), (50, 56678), (71, 56753), (84, 56822), (97, 56888),

Gene: Gorge\_63 Start: 41377, Stop: 41658, Start Num: 19

Candidate Starts for Gorge\_63:

(15, 41350), (Start: 19 @41377 has 146 MA's), (27, 41401), (46, 41416), (63, 41461), (65, 41473), (78, 41551), (82, 41563), (88, 41587), (90, 41599), (103, 41650),

Gene: Gravaillia\_69 Start: 48905, Stop: 49213, Start Num: 17

Candidate Starts for Gravaillia\_69:

(16, 48899), (Start: 17 @48905 has 20 MA's), (Start: 20 @48932 has 10 MA's), (33, 48965), (69, 49067), (72, 49094), (98, 49205),

Gene: Guanica15\_53 Start: 37156, Stop: 37407, Start Num: 35

Candidate Starts for Guanica15\_53:

(Start: 30 @37144 has 116 MA's), (Start: 35 @37156 has 2 MA's), (72, 37267), (75, 37285),

Gene: Guey18\_98 Start: 48765, Stop: 49070, Start Num: 49

Candidate Starts for Guey18\_98:

(Start: 49 @48765 has 6 MA's), (61, 48798), (96, 48999), (104, 49023),

Gene: HH92\_74 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for HH92\_74:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Hades\_60 Start: 40833, Stop: 41114, Start Num: 19

Candidate Starts for Hades\_60:

(15, 40806), (Start: 19 @40833 has 146 MA's), (27, 40857), (46, 40872), (63, 40917), (65, 40929), (78, 41007), (82, 41019), (88, 41043), (90, 41055), (103, 41106),

Gene: Hadrien\_72 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for Hadrien\_72:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Hail\_68 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for Hail\_68:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Halley\_133 Start: 72577, Stop: 72801, Start Num: 58

Candidate Starts for Halley\_133:

(Start: 58 @72577 has 28 MA's), (76, 72679), (78, 72694), (89, 72742),

Gene: Hammy\_53 Start: 38432, Stop: 38686, Start Num: 32

Candidate Starts for Hammy\_53:

(2, 38114), (4, 38183), (5, 38279), (Start: 32 @38432 has 7 MA's), (65, 38498), (75, 38561), (85, 38606),

Gene: HanKaySha\_94 Start: 56224, Stop: 56484, Start Num: 37  
Candidate Starts for HanKaySha\_94:  
(Start: 37 @56224 has 119 MA's), (50, 56245), (71, 56320), (84, 56389), (97, 56455),

Gene: Hannaconda\_122 Start: 68008, Stop: 68238, Start Num: 56  
Candidate Starts for Hannaconda\_122:  
(Start: 56 @68008 has 11 MA's), (87, 68167), (89, 68179),

Gene: Harella\_93 Start: 57373, Stop: 57633, Start Num: 37  
Candidate Starts for Harella\_93:  
(Start: 37 @57373 has 119 MA's), (50, 57394), (71, 57469), (84, 57538), (97, 57604),

Gene: HedwigODU\_50 Start: 37356, Stop: 37619, Start Num: 30  
Candidate Starts for HedwigODU\_50:  
(Start: 30 @37356 has 116 MA's), (75, 37497),

Gene: Hegedechwinu\_59 Start: 39047, Stop: 39328, Start Num: 19  
Candidate Starts for Hegedechwinu\_59:  
(Start: 19 @39047 has 146 MA's), (27, 39071), (46, 39086), (63, 39131), (65, 39143), (78, 39221), (82, 39233), (88, 39257), (90, 39269), (103, 39320),

Gene: Henry\_91 Start: 56534, Stop: 56794, Start Num: 37  
Candidate Starts for Henry\_91:  
(Start: 37 @56534 has 119 MA's), (50, 56555), (71, 56630), (84, 56699), (97, 56765),

Gene: Highbury\_92 Start: 56224, Stop: 56484, Start Num: 37  
Candidate Starts for Highbury\_92:  
(Start: 37 @56224 has 119 MA's), (50, 56245), (71, 56320), (84, 56389), (97, 56455),

Gene: Hlubikazi\_55 Start: 38053, Stop: 38334, Start Num: 19  
Candidate Starts for Hlubikazi\_55:  
(15, 38026), (Start: 19 @38053 has 146 MA's), (27, 38077), (46, 38092), (63, 38137), (65, 38149), (78, 38227), (82, 38239), (88, 38263), (90, 38275), (103, 38326),

Gene: HokkenD\_121 Start: 70940, Stop: 71164, Start Num: 58  
Candidate Starts for HokkenD\_121:  
(Start: 58 @70940 has 28 MA's), (76, 71042), (78, 71057), (89, 71105),

Gene: Holt\_98 Start: 57071, Stop: 57331, Start Num: 37  
Candidate Starts for Holt\_98:  
(Start: 37 @57071 has 119 MA's), (50, 57092), (71, 57167), (84, 57236), (97, 57302),

Gene: Homura\_50 Start: 37471, Stop: 37734, Start Num: 30  
Candidate Starts for Homura\_50:  
(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Hoonter\_96 Start: 56529, Stop: 56789, Start Num: 37  
Candidate Starts for Hoonter\_96:  
(Start: 37 @56529 has 119 MA's), (50, 56550), (71, 56625), (84, 56694), (97, 56760),

Gene: Hopey\_94 Start: 57035, Stop: 57295, Start Num: 37  
Candidate Starts for Hopey\_94:  
(Start: 37 @57035 has 119 MA's), (50, 57056), (71, 57131), (84, 57200), (97, 57266),



Gene: HufflyPuff\_95 Start: 57119, Stop: 57379, Start Num: 37  
Candidate Starts for HufflyPuff\_95:  
(Start: 37 @57119 has 119 MA's), (50, 57140), (71, 57215), (84, 57284), (97, 57350),

Gene: Hughesyang\_131 Start: 72302, Stop: 72526, Start Num: 58  
Candidate Starts for Hughesyang\_131:  
(Start: 58 @72302 has 28 MA's), (76, 72404), (78, 72419), (89, 72467),

Gene: Hurricane\_53 Start: 37919, Stop: 38188, Start Num: 26  
Candidate Starts for Hurricane\_53:  
(4, 37679), (8, 37823), (Start: 26 @37919 has 8 MA's), (39, 37943), (75, 38063), (88, 38117),

Gene: Hyperbowlee\_50 Start: 37668, Stop: 37931, Start Num: 30  
Candidate Starts for Hyperbowlee\_50:  
(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: IHOP\_91 Start: 56697, Stop: 56957, Start Num: 37  
Candidate Starts for IHOP\_91:  
(Start: 37 @56697 has 119 MA's), (50, 56718), (71, 56793), (84, 56862), (97, 56928),

Gene: lbOuu\_60 Start: 40412, Stop: 40696, Start Num: 19  
Candidate Starts for lbOuu\_60:  
(Start: 19 @40412 has 146 MA's), (27, 40436), (46, 40451), (63, 40496), (65, 40508), (78, 40586), (82, 40598), (88, 40622), (90, 40634), (103, 40688),

Gene: lbhubesi\_59 Start: 40025, Stop: 40303, Start Num: 19  
Candidate Starts for lbhubesi\_59:  
(15, 39998), (Start: 19 @40025 has 146 MA's), (64, 40109), (66, 40118), (78, 40196), (82, 40208), (88, 40232), (90, 40244), (103, 40295),

Gene: Ibrahim\_41 Start: 31892, Stop: 32149, Start Num: 30  
Candidate Starts for Ibrahim\_41:  
(3, 31616), (4, 31637), (Start: 30 @31892 has 116 MA's), (65, 31976), (82, 32066),

Gene: Icee\_94 Start: 56184, Stop: 56444, Start Num: 37  
Candidate Starts for Icee\_94:  
(Start: 37 @56184 has 119 MA's), (50, 56205), (71, 56280), (84, 56349), (97, 56415),

Gene: IdentityCrisis\_42 Start: 29075, Stop: 29332, Start Num: 22  
Candidate Starts for IdentityCrisis\_42:  
(Start: 22 @29075 has 1 MA's), (28, 29090), (60, 29150), (64, 29168),

Gene: Illumine\_53 Start: 38105, Stop: 38368, Start Num: 30  
Candidate Starts for Illumine\_53:  
(4, 37853), (Start: 30 @38105 has 116 MA's), (61, 38159), (75, 38246),

Gene: Inca\_90 Start: 55186, Stop: 55446, Start Num: 37  
Candidate Starts for Inca\_90:  
(Start: 37 @55186 has 119 MA's), (50, 55207), (71, 55282), (84, 55351), (97, 55417),

Gene: Inky\_50 Start: 37471, Stop: 37734, Start Num: 30  
Candidate Starts for Inky\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Inventum\_54 Start: 39529, Stop: 39807, Start Num: 19

Candidate Starts for Inventum\_54:

(15, 39502), (Start: 19 @39529 has 146 MA's), (64, 39613), (66, 39622), (75, 39685), (78, 39700), (82, 39712), (88, 39736), (90, 39748), (103, 39799),

Gene: IrishSherpFalk\_60 Start: 41690, Stop: 41971, Start Num: 19

Candidate Starts for IrishSherpFalk\_60:

(15, 41663), (Start: 19 @41690 has 146 MA's), (27, 41714), (46, 41729), (63, 41774), (65, 41786), (78, 41864), (82, 41876), (88, 41900), (90, 41912), (103, 41963),

Gene: JAWS\_50 Start: 37345, Stop: 37608, Start Num: 30

Candidate Starts for JAWS\_50:

(Start: 30 @37345 has 116 MA's), (75, 37486),

Gene: Jabbawokkie\_73 Start: 41755, Stop: 42039, Start Num: 19

Candidate Starts for Jabbawokkie\_73:

(15, 41728), (Start: 19 @41755 has 146 MA's), (27, 41779), (46, 41794), (63, 41839), (65, 41851), (78, 41929), (82, 41941), (88, 41965), (90, 41977), (103, 42031),

Gene: James\_63 Start: 41502, Stop: 41783, Start Num: 19

Candidate Starts for James\_63:

(15, 41475), (Start: 19 @41502 has 146 MA's), (27, 41526), (46, 41541), (63, 41586), (65, 41598), (78, 41676), (82, 41688), (88, 41712), (90, 41724), (103, 41775),

Gene: Jarcob\_59 Start: 39980, Stop: 40264, Start Num: 19

Candidate Starts for Jarcob\_59:

(15, 39953), (Start: 19 @39980 has 146 MA's), (27, 40004), (46, 40019), (63, 40064), (65, 40076), (78, 40154), (82, 40166), (88, 40190), (90, 40202), (103, 40256),

Gene: Jarvi\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for Jarvi\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Jayhawk\_51 Start: 37354, Stop: 37617, Start Num: 30

Candidate Starts for Jayhawk\_51:

(Start: 30 @37354 has 116 MA's), (75, 37495),

Gene: JeTaime\_94 Start: 57387, Stop: 57647, Start Num: 37

Candidate Starts for JeTaime\_94:

(Start: 37 @57387 has 119 MA's), (50, 57408), (71, 57483), (84, 57552), (97, 57618),

Gene: Jeckyll\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for Jeckyll\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Jeon\_55 Start: 45537, Stop: 45818, Start Num: 20

Candidate Starts for Jeon\_55:

(Start: 20 @45537 has 10 MA's), (50, 45597), (67, 45654), (80, 45726), (97, 45798),

Gene: Jinglebell\_64 Start: 42540, Stop: 42818, Start Num: 19

Candidate Starts for Jinglebell\_64:

(15, 42513), (Start: 19 @42540 has 146 MA's), (64, 42624), (66, 42633), (75, 42696), (78, 42711), (82, 42723), (88, 42747), (90, 42759), (103, 42810),

Gene: Job42\_61 Start: 41920, Stop: 42201, Start Num: 19

Candidate Starts for Job42\_61:

(15, 41893), (Start: 19 @41920 has 146 MA's), (64, 42004), (66, 42013), (75, 42076), (78, 42091), (82, 42103), (88, 42127), (90, 42139), (103, 42193),

Gene: JoeyJr\_54 Start: 38435, Stop: 38713, Start Num: 19

Candidate Starts for JoeyJr\_54:

(15, 38408), (Start: 19 @38435 has 146 MA's), (64, 38519), (66, 38528), (75, 38591), (78, 38606), (82, 38618), (88, 38642), (90, 38654), (103, 38705),

Gene: Journey\_46 Start: 30286, Stop: 30516, Start Num: 59

Candidate Starts for Journey\_46:

(Start: 23 @30217 has 6 MA's), (Start: 31 @30235 has 1 MA's), (51, 30271), (Start: 59 @30286 has 1 MA's), (75, 30382), (88, 30433), (94, 30469), (101, 30502), (103, 30508),

Gene: Joy99\_50 Start: 37400, Stop: 37663, Start Num: 30

Candidate Starts for Joy99\_50:

(Start: 30 @37400 has 116 MA's), (75, 37541),

Gene: JuicyJay\_128 Start: 73817, Stop: 74041, Start Num: 58

Candidate Starts for JuicyJay\_128:

(44, 73790), (Start: 58 @73817 has 28 MA's), (76, 73919), (78, 73934), (89, 73982),

Gene: Kalah2\_122 Start: 71108, Stop: 71332, Start Num: 58

Candidate Starts for Kalah2\_122:

(Start: 58 @71108 has 28 MA's), (76, 71210), (78, 71225), (89, 71273), (92, 71285),

Gene: Kanye\_90 Start: 56281, Stop: 56541, Start Num: 37

Candidate Starts for Kanye\_90:

(Start: 37 @56281 has 119 MA's), (50, 56302), (71, 56377), (84, 56446), (97, 56512),

Gene: Karhdo\_56 Start: 39525, Stop: 39809, Start Num: 19

Candidate Starts for Karhdo\_56:

(15, 39498), (Start: 19 @39525 has 146 MA's), (27, 39549), (46, 39564), (63, 39609), (65, 39621), (78, 39699), (82, 39711), (88, 39735), (90, 39747), (103, 39801),

Gene: KashFlow\_127 Start: 69790, Stop: 70017, Start Num: 56

Candidate Starts for KashFlow\_127:

(Start: 56 @69790 has 11 MA's), (82, 69925), (87, 69949), (89, 69961),

Gene: Keelan\_94 Start: 48287, Stop: 48550, Start Num: 49

Candidate Starts for Keelan\_94:

(Start: 49 @48287 has 6 MA's), (68, 48365), (75, 48419), (103, 48542),

Gene: Kersh\_61 Start: 42278, Stop: 42559, Start Num: 19

Candidate Starts for Kersh\_61:

(15, 42251), (Start: 19 @42278 has 146 MA's), (27, 42302), (46, 42317), (63, 42362), (65, 42374), (88, 42488), (90, 42500), (103, 42551),

Gene: Keshu\_55 Start: 37986, Stop: 38255, Start Num: 26

Candidate Starts for Keshu\_55:

(4, 37746), (Start: 26 @37986 has 8 MA's), (39, 38010), (75, 38130), (88, 38184),

Gene: KiSi\_55 Start: 38687, Stop: 38956, Start Num: 34

Candidate Starts for KiSi\_55:

(Start: 30 @38681 has 116 MA's), (Start: 34 @38687 has 2 MA's), (61, 38729), (65, 38753), (85, 38861), (105, 38945),

Gene: Kimberlium\_62 Start: 41811, Stop: 42092, Start Num: 19

Candidate Starts for Kimberlium\_62:

(12, 41775), (Start: 19 @41811 has 146 MA's), (27, 41835), (63, 41892), (65, 41904), (78, 41982), (82, 41994), (88, 42018), (90, 42030), (103, 42084),

Gene: Kimchi\_97 Start: 56801, Stop: 57061, Start Num: 37

Candidate Starts for Kimchi\_97:

(Start: 37 @56801 has 119 MA's), (50, 56822), (71, 56897), (84, 56966), (97, 57032),

Gene: Kinbote\_73 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for Kinbote\_73:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: KingMidas\_58 Start: 40097, Stop: 40375, Start Num: 19

Candidate Starts for KingMidas\_58:

(15, 40070), (Start: 19 @40097 has 146 MA's), (64, 40181), (66, 40190), (75, 40253), (78, 40268), (82, 40280), (88, 40304), (90, 40316), (103, 40367),

Gene: Klein\_128 Start: 69498, Stop: 69722, Start Num: 58

Candidate Starts for Klein\_128:

(Start: 58 @69498 has 28 MA's), (76, 69600), (78, 69615), (89, 69663),

Gene: Koella\_53 Start: 35910, Stop: 36194, Start Num: 19

Candidate Starts for Koella\_53:

(15, 35883), (Start: 19 @35910 has 146 MA's), (27, 35934), (46, 35949), (63, 35994), (65, 36006), (78, 36084), (82, 36096), (88, 36120), (90, 36132), (103, 36186),

Gene: Kostya\_93 Start: 56799, Stop: 57059, Start Num: 37

Candidate Starts for Kostya\_93:

(Start: 37 @56799 has 119 MA's), (50, 56820), (71, 56895), (84, 56964), (97, 57030),

Gene: KristaRAM\_62 Start: 42482, Stop: 42763, Start Num: 19

Candidate Starts for KristaRAM\_62:

(15, 42455), (Start: 19 @42482 has 146 MA's), (27, 42506), (46, 42521), (63, 42566), (65, 42578), (78, 42656), (82, 42668), (88, 42692), (90, 42704), (103, 42755),

Gene: Krueger\_57 Start: 38145, Stop: 38396, Start Num: 30

Candidate Starts for Krueger\_57:

(Start: 30 @38145 has 116 MA's), (Start: 34 @38151 has 2 MA's), (72, 38265), (73, 38271), (75, 38283),

Gene: LastHope\_53 Start: 36640, Stop: 36891, Start Num: 35

Candidate Starts for LastHope\_53:

(Start: 30 @36628 has 116 MA's), (Start: 35 @36640 has 2 MA's), (61, 36682), (72, 36751), (75, 36769),

Gene: LastJedi\_53 Start: 37230, Stop: 37511, Start Num: 19

Candidate Starts for LastJedi\_53:

(15, 37203), (Start: 19 @37230 has 146 MA's), (27, 37254), (46, 37269), (63, 37314), (65, 37326), (78, 37404), (82, 37416), (88, 37440), (90, 37452), (103, 37503),

Gene: LaterM\_51 Start: 38233, Stop: 38496, Start Num: 30

Candidate Starts for LaterM\_51:

(Start: 30 @38233 has 116 MA's), (61, 38287), (75, 38374),

Gene: Latretium\_61 Start: 40556, Stop: 40837, Start Num: 19

Candidate Starts for Latretium\_61:

(15, 40529), (Start: 19 @40556 has 146 MA's), (27, 40580), (46, 40595), (63, 40640), (65, 40652), (78, 40730), (82, 40742), (88, 40766), (90, 40778), (103, 40829),

Gene: LeMond\_55 Start: 38671, Stop: 38940, Start Num: 34

Candidate Starts for LeMond\_55:

(Start: 30 @38665 has 116 MA's), (Start: 34 @38671 has 2 MA's), (61, 38713), (65, 38737), (85, 38845), (105, 38929),

Gene: Leozinho\_58 Start: 39315, Stop: 39593, Start Num: 19

Candidate Starts for Leozinho\_58:

(15, 39288), (Start: 19 @39315 has 146 MA's), (64, 39399), (66, 39408), (75, 39471), (78, 39486), (82, 39498), (88, 39522), (90, 39534), (103, 39585),

Gene: Leperchaun\_51 Start: 37665, Stop: 37943, Start Num: 19

Candidate Starts for Leperchaun\_51:

(15, 37638), (Start: 19 @37665 has 146 MA's), (64, 37749), (66, 37758), (75, 37821), (78, 37836), (82, 37848), (88, 37872), (90, 37884), (103, 37935),

Gene: LilHazelnut\_75 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for LilHazelnut\_75:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: LilMoolah\_57 Start: 39425, Stop: 39706, Start Num: 19

Candidate Starts for LilMoolah\_57:

(15, 39398), (Start: 19 @39425 has 146 MA's), (64, 39509), (66, 39518), (75, 39581), (78, 39596), (82, 39608), (88, 39632), (90, 39644), (103, 39698),

Gene: LilPharaoh\_46 Start: 36768, Stop: 37037, Start Num: 30

Candidate Starts for LilPharaoh\_46:

(Start: 30 @36768 has 116 MA's), (70, 36864), (79, 36924), (81, 36930), (82, 36933), (88, 36960), (90, 36972), (102, 37026),

Gene: Lilac\_96 Start: 56626, Stop: 56886, Start Num: 37

Candidate Starts for Lilac\_96:

(Start: 37 @56626 has 119 MA's), (50, 56647), (71, 56722), (84, 56791), (97, 56857),

Gene: Lilizi\_94 Start: 56263, Stop: 56523, Start Num: 37

Candidate Starts for Lilizi\_94:

(Start: 37 @56263 has 119 MA's), (50, 56284), (71, 56359), (84, 56428), (97, 56494),

Gene: Lilpickle\_92 Start: 56151, Stop: 56411, Start Num: 37

Candidate Starts for Lilpickle\_92:

(Start: 37 @56151 has 119 MA's), (50, 56172), (71, 56247), (84, 56316), (97, 56382),

Gene: LindNT\_49 Start: 37556, Stop: 37819, Start Num: 30

Candidate Starts for LindNT\_49:

(Start: 30 @37556 has 116 MA's), (61, 37610), (75, 37697),

Gene: LittleE\_132 Start: 70999, Stop: 71229, Start Num: 56

Candidate Starts for LittleE\_132:

(Start: 56 @70999 has 11 MA's), (82, 71134), (87, 71158), (89, 71170),

Gene: LittleShirley\_59 Start: 40469, Stop: 40753, Start Num: 19

Candidate Starts for LittleShirley\_59:

(15, 40442), (Start: 19 @40469 has 146 MA's), (27, 40493), (46, 40508), (63, 40553), (65, 40565), (78, 40643), (82, 40655), (88, 40679), (90, 40691), (103, 40745),

Gene: Lizziana\_65 Start: 40983, Stop: 41264, Start Num: 19

Candidate Starts for Lizziana\_65:

(15, 40956), (Start: 19 @40983 has 146 MA's), (27, 41007), (46, 41022), (63, 41067), (65, 41079), (78, 41157), (82, 41169), (88, 41193), (90, 41205), (103, 41256),

Gene: Llama\_64 Start: 42394, Stop: 42672, Start Num: 19

Candidate Starts for Llama\_64:

(15, 42367), (Start: 19 @42394 has 146 MA's), (64, 42478), (66, 42487), (75, 42550), (78, 42565), (82, 42577), (88, 42601), (90, 42613), (103, 42664),

Gene: Llij\_55 Start: 38833, Stop: 39117, Start Num: 19

Candidate Starts for Llij\_55:

(15, 38806), (Start: 19 @38833 has 146 MA's), (27, 38857), (46, 38872), (63, 38917), (65, 38929), (78, 39007), (82, 39019), (88, 39043), (90, 39055), (103, 39109),

Gene: Llorens\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for Llorens\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Lolly9\_78 Start: 53913, Stop: 54164, Start Num: 53

Candidate Starts for Lolly9\_78:

(45, 53898), (Start: 53 @53913 has 4 MA's), (91, 54090), (106, 54150),

Gene: Lorde\_59 Start: 38120, Stop: 38404, Start Num: 19

Candidate Starts for Lorde\_59:

(15, 38093), (Start: 19 @38120 has 146 MA's), (27, 38144), (46, 38159), (63, 38204), (65, 38216), (78, 38294), (82, 38306), (88, 38330), (90, 38342), (103, 38396),

Gene: Lucky2013\_124 Start: 67876, Stop: 68106, Start Num: 56

Candidate Starts for Lucky2013\_124:

(Start: 56 @67876 has 11 MA's), (82, 68011), (87, 68035), (89, 68047),

Gene: Luke\_72 Start: 48804, Stop: 49112, Start Num: 17

Candidate Starts for Luke\_72:

(16, 48798), (Start: 17 @48804 has 20 MA's), (Start: 20 @48831 has 10 MA's), (33, 48864), (69, 48966), (72, 48993), (98, 49104),

Gene: Luna22\_68 Start: 48833, Stop: 49141, Start Num: 17

Candidate Starts for Luna22\_68:

(16, 48827), (Start: 17 @48833 has 20 MA's), (Start: 20 @48860 has 10 MA's), (33, 48893), (69, 48995), (72, 49022), (98, 49133),

Gene: LunaBlu\_61 Start: 40560, Stop: 40838, Start Num: 19

Candidate Starts for LunaBlu\_61:

(15, 40533), (Start: 19 @40560 has 146 MA's), (64, 40644), (66, 40653), (75, 40716), (78, 40731), (82, 40743), (88, 40767), (90, 40779), (103, 40830),

Gene: LunaStella\_55 Start: 39407, Stop: 39685, Start Num: 19

Candidate Starts for LunaStella\_55:

(11, 39371), (Start: 19 @39407 has 146 MA's), (Start: 23 @39416 has 6 MA's), (61, 39473), (64, 39491), (66, 39500), (75, 39563), (78, 39578), (82, 39590), (88, 39614), (90, 39626), (103, 39677),

Gene: Lunahalos\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for Lunahalos\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: MISSy\_94 Start: 56379, Stop: 56639, Start Num: 37

Candidate Starts for MISSy\_94:

(Start: 37 @56379 has 119 MA's), (50, 56400), (71, 56475), (84, 56544), (97, 56610),

Gene: MPhalcon\_94 Start: 56372, Stop: 56632, Start Num: 37

Candidate Starts for MPhalcon\_94:

(Start: 37 @56372 has 119 MA's), (50, 56393), (71, 56468), (84, 56537), (97, 56603),

Gene: MacnCheese\_55 Start: 38928, Stop: 39194, Start Num: 26

Candidate Starts for MacnCheese\_55:

(4, 38688), (Start: 26 @38928 has 8 MA's), (39, 38949), (48, 38955), (75, 39069), (85, 39114), (88, 39123),

Gene: MadMen\_57 Start: 39757, Stop: 40041, Start Num: 19

Candidate Starts for MadMen\_57:

(15, 39730), (Start: 19 @39757 has 146 MA's), (27, 39781), (46, 39796), (63, 39841), (65, 39853), (78, 39931), (82, 39943), (88, 39967), (90, 39979), (103, 40033),

Gene: MadamMonkfish\_93 Start: 55878, Stop: 56138, Start Num: 37

Candidate Starts for MadamMonkfish\_93:

(Start: 37 @55878 has 119 MA's), (50, 55899), (71, 55974), (84, 56043), (97, 56109),

Gene: Madiba\_57 Start: 39006, Stop: 39290, Start Num: 19

Candidate Starts for Madiba\_57:

(15, 38979), (Start: 19 @39006 has 146 MA's), (27, 39030), (46, 39045), (63, 39090), (65, 39102), (78, 39180), (82, 39192), (88, 39216), (90, 39228), (103, 39282),

Gene: Mahavrat\_57 Start: 39385, Stop: 39666, Start Num: 19

Candidate Starts for Mahavrat\_57:

(15, 39358), (Start: 19 @39385 has 146 MA's), (27, 39409), (46, 39424), (63, 39469), (65, 39481), (78, 39559), (82, 39571), (88, 39595), (90, 39607), (103, 39658),

Gene: Manda\_95 Start: 57955, Stop: 58215, Start Num: 37

Candidate Starts for Manda\_95:

(Start: 37 @57955 has 119 MA's), (50, 57976), (71, 58051), (84, 58120), (97, 58186),

Gene: Mandlovu\_55 Start: 37995, Stop: 38276, Start Num: 19

Candidate Starts for Mandlovu\_55:

(15, 37968), (Start: 19 @37995 has 146 MA's), (27, 38019), (46, 38034), (63, 38079), (65, 38091), (78, 38169), (82, 38181), (88, 38205), (90, 38217), (103, 38268),

Gene: Maravista\_60 Start: 41432, Stop: 41713, Start Num: 19

Candidate Starts for Maravista\_60:

(15, 41405), (Start: 19 @41432 has 146 MA's), (27, 41456), (46, 41471), (63, 41516), (65, 41528), (78, 41606), (82, 41618), (88, 41642), (90, 41654), (103, 41705),

Gene: Marcoliusprime\_54 Start: 39559, Stop: 39792, Start Num: 36

Candidate Starts for Marcoliusprime\_54:

(Start: 36 @39559 has 6 MA's), (Start: 38 @39562 has 3 MA's), (42, 39568), (47, 39574), (72, 39664), (73, 39670), (88, 39733),

Gene: MarkPhew\_54 Start: 38124, Stop: 38393, Start Num: 30

Candidate Starts for MarkPhew\_54:

(Start: 30 @38124 has 116 MA's), (55, 38151), (61, 38166), (65, 38190), (85, 38298), (105, 38382),

Gene: Marker\_66 Start: 40100, Stop: 40384, Start Num: 19

Candidate Starts for Marker\_66:

(15, 40073), (Start: 19 @40100 has 146 MA's), (27, 40124), (46, 40139), (63, 40184), (65, 40196), (78, 40274), (82, 40286), (88, 40310), (90, 40322), (103, 40376),

Gene: Marshawn\_53 Start: 38262, Stop: 38522, Start Num: 30

Candidate Starts for Marshawn\_53:

(2, 37941), (4, 38010), (5, 38106), (Start: 30 @38262 has 116 MA's), (62, 38319), (82, 38427), (95, 38490),

Gene: Marshmallow\_91 Start: 57427, Stop: 57687, Start Num: 37

Candidate Starts for Marshmallow\_91:

(Start: 37 @57427 has 119 MA's), (50, 57448), (71, 57523), (84, 57592), (97, 57658),

Gene: Martik\_59 Start: 39936, Stop: 40217, Start Num: 19

Candidate Starts for Martik\_59:

(15, 39909), (Start: 19 @39936 has 146 MA's), (27, 39960), (46, 39975), (63, 40020), (65, 40032), (78, 40110), (82, 40122), (88, 40146), (90, 40158), (103, 40209),

Gene: Mattes\_63 Start: 41502, Stop: 41783, Start Num: 19

Candidate Starts for Mattes\_63:

(15, 41475), (Start: 19 @41502 has 146 MA's), (27, 41526), (46, 41541), (63, 41586), (65, 41598), (78, 41676), (82, 41688), (88, 41712), (90, 41724), (103, 41775),

Gene: Maxxinista\_96 Start: 56793, Stop: 57053, Start Num: 37

Candidate Starts for Maxxinista\_96:

(Start: 37 @56793 has 119 MA's), (50, 56814), (71, 56889), (84, 56958), (97, 57024),

Gene: Mdavu\_47 Start: 37029, Stop: 37298, Start Num: 30



Candidate Starts for Mdavu\_47:

(Start: 30 @37029 has 116 MA's), (70, 37125), (79, 37185), (81, 37191), (82, 37194), (88, 37221), (90, 37233), (102, 37287),

Gene: MeaningOfLife\_51 Start: 38280, Stop: 38543, Start Num: 30

Candidate Starts for MeaningOfLife\_51:

(Start: 30 @38280 has 116 MA's), (75, 38421),

Gene: Megabear\_55 Start: 44928, Stop: 45209, Start Num: 20

Candidate Starts for Megabear\_55:

(Start: 20 @44928 has 10 MA's), (50, 44988), (67, 45045), (80, 45117), (97, 45189),

Gene: Megsy\_52 Start: 37615, Stop: 37878, Start Num: 30

Candidate Starts for Megsy\_52:

(Start: 30 @37615 has 116 MA's), (61, 37669), (75, 37756),

Gene: Mendokysei\_39 Start: 30983, Stop: 31297, Start Num: 30

Candidate Starts for Mendokysei\_39:

(Start: 30 @30983 has 116 MA's), (41, 30998), (61, 31037),

Gene: MiaZeal\_129 Start: 69014, Stop: 69244, Start Num: 56

Candidate Starts for MiaZeal\_129:

(Start: 56 @69014 has 11 MA's), (87, 69173), (89, 69185),

Gene: Milly\_54 Start: 39532, Stop: 39765, Start Num: 36

Candidate Starts for Milly\_54:

(Start: 36 @39532 has 6 MA's), (Start: 38 @39535 has 3 MA's), (42, 39541), (47, 39547), (72, 39637), (73, 39643), (88, 39706),

Gene: Mindy\_92 Start: 55700, Stop: 55960, Start Num: 37

Candidate Starts for Mindy\_92:

(Start: 37 @55700 has 119 MA's), (50, 55721), (71, 55796), (84, 55865), (97, 55931),

Gene: Minerva\_130 Start: 70903, Stop: 71127, Start Num: 58

Candidate Starts for Minerva\_130:

(Start: 58 @70903 has 28 MA's), (76, 71005), (78, 71020), (89, 71068),

Gene: MiniMac\_83 Start: 53909, Stop: 54160, Start Num: 53

Candidate Starts for MiniMac\_83:

(45, 53894), (Start: 53 @53909 has 4 MA's), (91, 54086), (106, 54146),

Gene: MinionDave\_58 Start: 40283, Stop: 40564, Start Num: 19

Candidate Starts for MinionDave\_58:

(Start: 19 @40283 has 146 MA's), (27, 40307), (46, 40322), (63, 40367), (65, 40379), (78, 40457), (82, 40469), (88, 40493), (90, 40505), (103, 40556),

Gene: Miniwave\_88 Start: 56195, Stop: 56455, Start Num: 37

Candidate Starts for Miniwave\_88:

(Start: 37 @56195 has 119 MA's), (50, 56216), (71, 56291), (84, 56360), (97, 56426),

Gene: Misfit\_94 Start: 57669, Stop: 57929, Start Num: 37

Candidate Starts for Misfit\_94:

(Start: 37 @57669 has 119 MA's), (50, 57690), (71, 57765), (84, 57834), (97, 57900),

Gene: MisterCuddles\_57 Start: 39742, Stop: 40020, Start Num: 19

Candidate Starts for MisterCuddles\_57:

(15, 39715), (Start: 19 @39742 has 146 MA's), (64, 39826), (66, 39835), (75, 39898), (78, 39913), (82, 39925), (88, 39949), (90, 39961), (103, 40012),

Gene: Modragons\_63 Start: 42384, Stop: 42662, Start Num: 19

Candidate Starts for Modragons\_63:

(15, 42357), (Start: 19 @42384 has 146 MA's), (64, 42468), (66, 42477), (75, 42540), (78, 42555), (82, 42567), (88, 42591), (90, 42603), (103, 42654),

Gene: Moldemort\_96 Start: 56336, Stop: 56596, Start Num: 37

Candidate Starts for Moldemort\_96:

(Start: 37 @56336 has 119 MA's), (50, 56357), (71, 56432), (84, 56501), (97, 56567),

Gene: Moleficient\_7 Start: 5213, Stop: 4956, Start Num: 57

Candidate Starts for Moleficient\_7:

(27, 5273), (Start: 57 @5213 has 5 MA's), (75, 5099), (92, 5024), (101, 4979),

Gene: Mosby\_89 Start: 55952, Stop: 56212, Start Num: 37

Candidate Starts for Mosby\_89:

(Start: 37 @55952 has 119 MA's), (50, 55973), (71, 56048), (84, 56117), (97, 56183),

Gene: Mova\_60 Start: 39510, Stop: 39794, Start Num: 19

Candidate Starts for Mova\_60:

(15, 39483), (Start: 19 @39510 has 146 MA's), (27, 39534), (46, 39549), (63, 39594), (65, 39606), (78, 39684), (82, 39696), (88, 39720), (90, 39732), (103, 39786),

Gene: Mozy\_68 Start: 42517, Stop: 42798, Start Num: 19

Candidate Starts for Mozy\_68:

(15, 42490), (Start: 19 @42517 has 146 MA's), (27, 42541), (46, 42556), (63, 42601), (65, 42613), (78, 42691), (82, 42703), (88, 42727), (90, 42739), (103, 42790),

Gene: Mufasa\_54 Start: 39116, Stop: 39349, Start Num: 38

Candidate Starts for Mufasa\_54:

(Start: 36 @39113 has 6 MA's), (Start: 38 @39116 has 3 MA's), (42, 39122), (47, 39128), (72, 39218), (73, 39224), (88, 39287), (102, 39338),

Gene: Murica\_96 Start: 57595, Stop: 57855, Start Num: 37

Candidate Starts for Murica\_96:

(Start: 37 @57595 has 119 MA's), (50, 57616), (71, 57691), (84, 57760), (97, 57826),

Gene: Murphy\_93 Start: 57036, Stop: 57296, Start Num: 37

Candidate Starts for Murphy\_93:

(Start: 37 @57036 has 119 MA's), (50, 57057), (71, 57132), (84, 57201), (97, 57267),

Gene: Murucutumbu\_51 Start: 38326, Stop: 38589, Start Num: 30

Candidate Starts for Murucutumbu\_51:

(4, 38074), (Start: 30 @38326 has 116 MA's), (61, 38380), (75, 38467),

Gene: Mutaforma13\_63 Start: 42840, Stop: 43124, Start Num: 19

Candidate Starts for Mutaforma13\_63:

(15, 42813), (Start: 19 @42840 has 146 MA's), (27, 42864), (46, 42879), (63, 42924), (65, 42936), (78, 43014), (82, 43026), (88, 43050), (90, 43062), (103, 43116),

Gene: Mynx\_51 Start: 37672, Stop: 37935, Start Num: 30

Candidate Starts for Mynx\_51:

(Start: 30 @37672 has 116 MA's), (75, 37813),

Gene: Myrale\_93 Start: 57158, Stop: 57418, Start Num: 37

Candidate Starts for Myrale\_93:

(Start: 37 @57158 has 119 MA's), (50, 57179), (71, 57254), (84, 57323), (97, 57389),

Gene: Nairb\_40 Start: 31446, Stop: 31703, Start Num: 30

Candidate Starts for Nairb\_40:

(3, 31170), (4, 31191), (Start: 30 @31446 has 116 MA's), (65, 31530), (82, 31620),

Gene: Nala\_95 Start: 56881, Stop: 57141, Start Num: 37

Candidate Starts for Nala\_95:

(Start: 37 @56881 has 119 MA's), (50, 56902), (71, 56977), (84, 57046), (97, 57112),

Gene: NelitzaMV\_91 Start: 56241, Stop: 56501, Start Num: 37

Candidate Starts for NelitzaMV\_91:

(Start: 37 @56241 has 119 MA's), (50, 56262), (71, 56337), (84, 56406), (97, 56472),

Gene: Nergal\_48 Start: 36024, Stop: 36272, Start Num: 30

Candidate Starts for Nergal\_48:

(Start: 30 @36024 has 116 MA's), (72, 36138), (75, 36156), (83, 36189), (95, 36246),

Gene: Nibb\_53 Start: 37813, Stop: 38082, Start Num: 30

Candidate Starts for Nibb\_53:

(Start: 30 @37813 has 116 MA's), (55, 37840), (85, 37987), (105, 38071),

Gene: NihilNomen\_133 Start: 71762, Stop: 71986, Start Num: 58

Candidate Starts for NihilNomen\_133:

(44, 71735), (Start: 58 @71762 has 28 MA's), (76, 71864), (78, 71879), (89, 71927),

Gene: Nikao\_49 Start: 39653, Stop: 39922, Start Num: 30

Candidate Starts for Nikao\_49:

(Start: 30 @39653 has 116 MA's), (70, 39749), (79, 39809), (81, 39815), (82, 39818), (88, 39845), (90, 39857), (102, 39911),

Gene: Niklas\_53 Start: 38346, Stop: 38609, Start Num: 30

Candidate Starts for Niklas\_53:

(1, 37866), (2, 38022), (4, 38091), (Start: 30 @38346 has 116 MA's), (71, 38448), (72, 38466), (75, 38484), (88, 38538), (95, 38574), (102, 38598),

Gene: Nimrod\_94 Start: 57584, Stop: 57844, Start Num: 37

Candidate Starts for Nimrod\_94:

(Start: 37 @57584 has 119 MA's), (50, 57605), (71, 57680), (84, 57749), (97, 57815),

Gene: Nivrat\_55 Start: 39298, Stop: 39579, Start Num: 19

Candidate Starts for Nivrat\_55:

(15, 39271), (Start: 19 @39298 has 146 MA's), (64, 39382), (66, 39391), (75, 39454), (78, 39469), (82, 39481), (88, 39505), (90, 39517), (103, 39571),

Gene: NoSleep\_94 Start: 56218, Stop: 56478, Start Num: 37

Candidate Starts for NoSleep\_94:

(Start: 37 @56218 has 119 MA's), (50, 56239), (71, 56314), (84, 56383), (97, 56449),

Gene: NormanBulbieJr\_59 Start: 39923, Stop: 40207, Start Num: 19

Candidate Starts for NormanBulbieJr\_59:

(15, 39896), (Start: 19 @39923 has 146 MA's), (27, 39947), (46, 39962), (63, 40007), (65, 40019), (78, 40097), (82, 40109), (88, 40133), (90, 40145), (103, 40199),

Gene: Nutello\_46 Start: 37040, Stop: 37309, Start Num: 30

Candidate Starts for Nutello\_46:

(Start: 30 @37040 has 116 MA's), (70, 37136), (79, 37196), (81, 37202), (82, 37205), (88, 37232), (90, 37244), (102, 37298),

Gene: OBUpride\_74 Start: 48893, Stop: 49201, Start Num: 17

Candidate Starts for OBUpride\_74:

(16, 48887), (Start: 17 @48893 has 20 MA's), (Start: 20 @48920 has 10 MA's), (33, 48953), (69, 49055), (72, 49082), (98, 49193),

Gene: Ochi17\_62 Start: 41991, Stop: 42269, Start Num: 19

Candidate Starts for Ochi17\_62:

(15, 41964), (Start: 19 @41991 has 146 MA's), (64, 42075), (66, 42084), (75, 42147), (78, 42162), (82, 42174), (88, 42198), (90, 42210), (103, 42261),

Gene: Odette\_133 Start: 72857, Stop: 73081, Start Num: 58

Candidate Starts for Odette\_133:

(Start: 58 @72857 has 28 MA's), (76, 72959), (78, 72974), (89, 73022),

Gene: OfUltron\_64 Start: 42540, Stop: 42818, Start Num: 19

Candidate Starts for OfUltron\_64:

(15, 42513), (Start: 19 @42540 has 146 MA's), (64, 42624), (66, 42633), (75, 42696), (78, 42711), (82, 42723), (88, 42747), (90, 42759), (103, 42810),

Gene: Oksu\_63 Start: 42803, Stop: 43081, Start Num: 19

Candidate Starts for Oksu\_63:

(15, 42776), (Start: 19 @42803 has 146 MA's), (64, 42887), (66, 42896), (75, 42959), (78, 42974), (82, 42986), (88, 43010), (90, 43022), (103, 43073),

Gene: OldBen\_56 Start: 39848, Stop: 40132, Start Num: 19

Candidate Starts for OldBen\_56:

(15, 39821), (Start: 19 @39848 has 146 MA's), (27, 39872), (46, 39887), (63, 39932), (65, 39944), (78, 40022), (82, 40034), (88, 40058), (90, 40070), (103, 40124),

Gene: OlympiaSaint\_61 Start: 40444, Stop: 40725, Start Num: 19

Candidate Starts for OlympiaSaint\_61:

(15, 40417), (Start: 19 @40444 has 146 MA's), (27, 40468), (46, 40483), (63, 40528), (65, 40540), (78, 40618), (82, 40630), (88, 40654), (90, 40666), (103, 40717),

Gene: Omega\_139 Start: 72680, Stop: 72910, Start Num: 56

Candidate Starts for Omega\_139:

(Start: 56 @72680 has 11 MA's), (82, 72815), (87, 72839), (89, 72851),

Gene: Optimus\_122 Start: 69299, Stop: 69523, Start Num: 58

Candidate Starts for Optimus\_122:

(Start: 58 @69299 has 28 MA's), (76, 69401), (78, 69416), (89, 69464), (92, 69476),

Gene: OrionPax\_92 Start: 55969, Stop: 56229, Start Num: 37

Candidate Starts for OrionPax\_92:

(Start: 37 @55969 has 119 MA's), (50, 55990), (71, 56065), (84, 56134), (97, 56200),

Gene: Oscar\_55 Start: 38567, Stop: 38842, Start Num: 30

Candidate Starts for Oscar\_55:

(Start: 30 @38567 has 116 MA's), (Start: 34 @38573 has 2 MA's), (61, 38615), (65, 38639), (85, 38747), (105, 38831),

Gene: OwlsT2W\_59 Start: 40166, Stop: 40444, Start Num: 19

Candidate Starts for OwlsT2W\_59:

(15, 40139), (Start: 19 @40166 has 146 MA's), (64, 40250), (75, 40322), (78, 40337), (82, 40349), (88, 40373), (90, 40385), (103, 40436),

Gene: PHappiness\_54 Start: 38211, Stop: 38489, Start Num: 19

Candidate Starts for PHappiness\_54:

(15, 38184), (Start: 19 @38211 has 146 MA's), (64, 38295), (66, 38304), (75, 38367), (78, 38382), (82, 38394), (88, 38418), (90, 38430), (103, 38481),

Gene: PMC\_56 Start: 40550, Stop: 40834, Start Num: 19

Candidate Starts for PMC\_56:

(15, 40523), (Start: 19 @40550 has 146 MA's), (27, 40574), (46, 40589), (63, 40634), (65, 40646), (78, 40724), (82, 40736), (88, 40760), (90, 40772), (103, 40826),

Gene: PR\_55 Start: 45532, Stop: 45813, Start Num: 20

Candidate Starts for PR\_55:

(Start: 20 @45532 has 10 MA's), (50, 45592), (67, 45649), (80, 45721), (97, 45793),

Gene: Pacc40\_53 Start: 38285, Stop: 38563, Start Num: 19

Candidate Starts for Pacc40\_53:

(15, 38258), (Start: 19 @38285 has 146 MA's), (64, 38369), (66, 38378), (75, 38441), (78, 38456), (82, 38468), (88, 38492), (90, 38504), (103, 38555),

Gene: Padfoot\_50 Start: 37668, Stop: 37931, Start Num: 30

Candidate Starts for Padfoot\_50:

(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: Padpat\_52 Start: 37347, Stop: 37610, Start Num: 30

Candidate Starts for Padpat\_52:

(Start: 30 @37347 has 116 MA's), (75, 37488),

Gene: Palpatine\_95 Start: 57622, Stop: 57882, Start Num: 37

Candidate Starts for Palpatine\_95:

(Start: 37 @57622 has 119 MA's), (50, 57643), (71, 57718), (84, 57787), (97, 57853),

Gene: Paperbeatsrock\_92 Start: 56873, Stop: 57133, Start Num: 37

Candidate Starts for Paperbeatsrock\_92:

(Start: 37 @56873 has 119 MA's), (50, 56894), (71, 56969), (84, 57038), (97, 57104),

Gene: Pat3\_90 Start: 55071, Stop: 55331, Start Num: 37

Candidate Starts for Pat3\_90:

(6, 54933), (Start: 37 @55071 has 119 MA's), (50, 55092), (84, 55236), (97, 55302),

Gene: Peanam\_53 Start: 38304, Stop: 38567, Start Num: 30

Candidate Starts for Peanam\_53:

(1, 37824), (2, 37980), (4, 38049), (Start: 30 @38304 has 116 MA's), (71, 38406), (72, 38424), (75, 38442), (88, 38496), (95, 38532), (102, 38556),

Gene: Peel\_50 Start: 37473, Stop: 37736, Start Num: 30

Candidate Starts for Peel\_50:

(Start: 30 @37473 has 116 MA's), (75, 37614),

Gene: Petra64142\_98 Start: 58076, Stop: 58336, Start Num: 37

Candidate Starts for Petra64142\_98:

(6, 57938), (Start: 37 @58076 has 119 MA's), (50, 58097), (84, 58241), (97, 58307),

Gene: Phaja\_91 Start: 56699, Stop: 56959, Start Num: 37

Candidate Starts for Phaja\_91:

(Start: 37 @56699 has 119 MA's), (50, 56720), (71, 56795), (84, 56864), (97, 56930),

Gene: Pharb\_50 Start: 36682, Stop: 36942, Start Num: 26

Candidate Starts for Pharb\_50:

(1, 36217), (4, 36442), (Start: 26 @36682 has 8 MA's), (39, 36697), (88, 36871),

Gene: Pharsalus\_90 Start: 56673, Stop: 56933, Start Num: 37

Candidate Starts for Pharsalus\_90:

(Start: 37 @56673 has 119 MA's), (50, 56694), (71, 56769), (84, 56838), (97, 56904),

Gene: Phasih\_57 Start: 40355, Stop: 40633, Start Num: 19

Candidate Starts for Phasih\_57:

(15, 40328), (Start: 19 @40355 has 146 MA's), (64, 40439), (66, 40448), (75, 40511), (78, 40526), (82, 40538), (88, 40562), (90, 40574), (103, 40625),

Gene: PhatBacter\_97 Start: 57367, Stop: 57627, Start Num: 37

Candidate Starts for PhatBacter\_97:

(Start: 37 @57367 has 119 MA's), (50, 57388), (71, 57463), (84, 57532), (97, 57598),

Gene: Phatniss\_57 Start: 39928, Stop: 40212, Start Num: 19

Candidate Starts for Phatniss\_57:

(15, 39901), (Start: 19 @39928 has 146 MA's), (27, 39952), (46, 39967), (63, 40012), (65, 40024), (78, 40102), (82, 40114), (88, 40138), (90, 40150), (103, 40204),

Gene: Phaux\_96 Start: 57909, Stop: 58169, Start Num: 37

Candidate Starts for Phaux\_96:

(Start: 37 @57909 has 119 MA's), (50, 57930), (71, 58005), (84, 58074), (97, 58140),

Gene: PhelpsODU\_53 Start: 37175, Stop: 37432, Start Num: 30

Candidate Starts for PhelpsODU\_53:

(Start: 30 @37175 has 116 MA's), (40, 37196), (65, 37250), (75, 37313), (77, 37322), (95, 37400),

Gene: Philus\_62 Start: 41088, Stop: 41369, Start Num: 19

Candidate Starts for Philus\_62:

(15, 41061), (Start: 19 @41088 has 146 MA's), (64, 41172), (66, 41181), (75, 41244), (78, 41259), (82, 41271), (88, 41295), (90, 41307), (103, 41361),

Gene: Phoebus\_132 Start: 73656, Stop: 73880, Start Num: 58

Candidate Starts for Phoebus\_132:

(Start: 58 @73656 has 28 MA's), (76, 73758), (78, 73773), (89, 73821),

Gene: Phrank\_54 Start: 37132, Stop: 37389, Start Num: 30

Candidate Starts for Phrank\_54:

(Start: 30 @37132 has 116 MA's), (40, 37153), (65, 37207), (75, 37270), (77, 37279), (95, 37357),

Gene: PhriedRice\_7 Start: 5180, Stop: 4923, Start Num: 57

Candidate Starts for PhriedRice\_7:

(27, 5240), (Start: 57 @5180 has 5 MA's), (75, 5066), (92, 4991), (101, 4946),

Gene: Phrux\_91 Start: 56185, Stop: 56445, Start Num: 37

Candidate Starts for Phrux\_91:

(Start: 37 @56185 has 119 MA's), (50, 56206), (71, 56281), (84, 56350), (97, 56416),

Gene: Piatt\_50 Start: 37668, Stop: 37931, Start Num: 30

Candidate Starts for Piatt\_50:

(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: Pippy\_57 Start: 38794, Stop: 39075, Start Num: 19

Candidate Starts for Pippy\_57:

(15, 38767), (Start: 19 @38794 has 146 MA's), (27, 38818), (46, 38833), (63, 38878), (65, 38890), (78, 38968), (82, 38980), (88, 39004), (90, 39016), (103, 39067),

Gene: Pixie\_52 Start: 37451, Stop: 37720, Start Num: 26

Candidate Starts for Pixie\_52:

(4, 37211), (Start: 26 @37451 has 8 MA's), (39, 37475), (75, 37595), (88, 37649),

Gene: Plumbus\_61 Start: 40255, Stop: 40533, Start Num: 19

Candidate Starts for Plumbus\_61:

(15, 40228), (Start: 19 @40255 has 146 MA's), (64, 40339), (66, 40348), (75, 40411), (78, 40426), (82, 40438), (88, 40462), (90, 40474), (103, 40525),

Gene: Poenanya\_59 Start: 41112, Stop: 41390, Start Num: 19

Candidate Starts for Poenanya\_59:

(15, 41085), (Start: 19 @41112 has 146 MA's), (64, 41196), (66, 41205), (75, 41268), (78, 41283), (82, 41295), (88, 41319), (90, 41331), (103, 41382),

Gene: Pokerus\_49 Start: 37394, Stop: 37657, Start Num: 30

Candidate Starts for Pokerus\_49:

(Start: 30 @37394 has 116 MA's), (61, 37448), (75, 37535),

Gene: Policronamos\_97 Start: 57640, Stop: 57900, Start Num: 37

Candidate Starts for Policronamos\_97:

(Start: 37 @57640 has 119 MA's), (50, 57661), (71, 57736), (84, 57805), (97, 57871),

Gene: Polka14\_57 Start: 39308, Stop: 39586, Start Num: 19

Candidate Starts for Polka14\_57:

(15, 39281), (Start: 19 @39308 has 146 MA's), (64, 39392), (66, 39401), (75, 39464), (78, 39479), (82, 39491), (88, 39515), (90, 39527), (103, 39578),

Gene: Pollywog\_60 Start: 40759, Stop: 41043, Start Num: 19

Candidate Starts for Pollywog\_60:

(15, 40732), (Start: 19 @40759 has 146 MA's), (27, 40783), (46, 40798), (63, 40843), (65, 40855), (78, 40933), (82, 40945), (88, 40969), (90, 40981), (103, 41035),

Gene: Porcelain\_127 Start: 68822, Stop: 69052, Start Num: 56

Candidate Starts for Porcelain\_127:

(Start: 56 @68822 has 11 MA's), (82, 68957), (87, 68981), (89, 68993),

Gene: Porky\_92 Start: 55785, Stop: 56045, Start Num: 37

Candidate Starts for Porky\_92:

(Start: 37 @55785 has 119 MA's), (50, 55806), (71, 55881), (84, 55950), (97, 56016),

Gene: Pound\_120 Start: 70039, Stop: 70263, Start Num: 58

Candidate Starts for Pound\_120:

(Start: 58 @70039 has 28 MA's), (76, 70141), (78, 70156), (89, 70204), (92, 70216),

Gene: Priscilla\_59 Start: 40022, Stop: 40306, Start Num: 19

Candidate Starts for Priscilla\_59:

(15, 39995), (Start: 19 @40022 has 146 MA's), (27, 40046), (46, 40061), (63, 40106), (65, 40118), (78, 40196), (82, 40208), (88, 40232), (90, 40244), (103, 40298),

Gene: Prithvi\_51 Start: 37556, Stop: 37819, Start Num: 30

Candidate Starts for Prithvi\_51:

(Start: 30 @37556 has 116 MA's), (61, 37610), (75, 37697),

Gene: Pumpkin\_97 Start: 57561, Stop: 57821, Start Num: 37

Candidate Starts for Pumpkin\_97:

(Start: 37 @57561 has 119 MA's), (50, 57582), (71, 57657), (84, 57726), (97, 57792),

Gene: Pupper\_53 Start: 18336, Stop: 18617, Start Num: 18

Candidate Starts for Pupper\_53:

(Start: 18 @18336 has 2 MA's), (24, 18372), (65, 18447),

Gene: Quallification\_94 Start: 57281, Stop: 57541, Start Num: 37

Candidate Starts for Quallification\_94:

(Start: 37 @57281 has 119 MA's), (50, 57302), (71, 57377), (84, 57446), (97, 57512),

Gene: QuickMath\_61 Start: 42034, Stop: 42315, Start Num: 19

Candidate Starts for QuickMath\_61:

(12, 41998), (Start: 19 @42034 has 146 MA's), (27, 42058), (63, 42115), (65, 42127), (78, 42205), (82, 42217), (88, 42241), (90, 42253), (103, 42307),

Gene: QuincyRose\_49 Start: 37786, Stop: 38049, Start Num: 30

Candidate Starts for QuincyRose\_49:

(Start: 30 @37786 has 116 MA's), (75, 37927),

Gene: Radiance\_58 Start: 40047, Stop: 40328, Start Num: 19

Candidate Starts for Radiance\_58:



(15, 40020), (Start: 19 @40047 has 146 MA's), (27, 40071), (46, 40086), (63, 40131), (65, 40143), (78, 40221), (82, 40233), (88, 40257), (90, 40269), (103, 40320),

Gene: Rakim\_94 Start: 56610, Stop: 56870, Start Num: 37

Candidate Starts for Rakim\_94:

(Start: 37 @56610 has 119 MA's), (50, 56631), (71, 56706), (84, 56775), (97, 56841),

Gene: Ramen\_51 Start: 37358, Stop: 37621, Start Num: 30

Candidate Starts for Ramen\_51:

(Start: 30 @37358 has 116 MA's), (75, 37499),

Gene: Rapunzel97\_51 Start: 37354, Stop: 37617, Start Num: 30

Candidate Starts for Rapunzel97\_51:

(Start: 30 @37354 has 116 MA's), (75, 37495),

Gene: RedBird\_57 Start: 39343, Stop: 39624, Start Num: 19

Candidate Starts for RedBird\_57:

(15, 39316), (Start: 19 @39343 has 146 MA's), (64, 39427), (66, 39436), (75, 39499), (78, 39514), (82, 39526), (88, 39550), (90, 39562),

Gene: Redno2\_123 Start: 69089, Stop: 69313, Start Num: 58

Candidate Starts for Redno2\_123:

(Start: 58 @69089 has 28 MA's), (76, 69191), (78, 69206), (89, 69254),

Gene: Renaud18\_65 Start: 40812, Stop: 41093, Start Num: 19

Candidate Starts for Renaud18\_65:

(13, 40776), (Start: 19 @40812 has 146 MA's), (Start: 23 @40827 has 6 MA's), (46, 40851), (63, 40896), (65, 40908), (88, 41022), (90, 41034), (103, 41085),

Gene: Rialto\_65 Start: 42826, Stop: 43110, Start Num: 19

Candidate Starts for Rialto\_65:

(15, 42799), (Start: 19 @42826 has 146 MA's), (27, 42850), (46, 42865), (63, 42910), (65, 42922), (78, 43000), (82, 43012), (88, 43036), (90, 43048), (103, 43102),

Gene: RicoCaldo\_7 Start: 5210, Stop: 4953, Start Num: 57

Candidate Starts for RicoCaldo\_7:

(27, 5270), (Start: 57 @5210 has 5 MA's), (75, 5096), (92, 5021), (101, 4976),

Gene: Rimmer\_91 Start: 56182, Stop: 56442, Start Num: 37

Candidate Starts for Rimmer\_91:

(6, 56044), (Start: 37 @56182 has 119 MA's), (50, 56203), (84, 56347), (97, 56413),

Gene: Rita\_60 Start: 38653, Stop: 38937, Start Num: 19

Candidate Starts for Rita\_60:

(15, 38626), (Start: 19 @38653 has 146 MA's), (27, 38677), (46, 38692), (63, 38737), (65, 38749), (78, 38827), (82, 38839), (88, 38863), (90, 38875), (103, 38929),

Gene: RitaG\_54 Start: 38556, Stop: 38834, Start Num: 19

Candidate Starts for RitaG\_54:

(15, 38529), (Start: 19 @38556 has 146 MA's), (64, 38640), (66, 38649), (75, 38712), (78, 38727), (82, 38739), (88, 38763), (90, 38775), (103, 38826),

Gene: RiverMonster\_94 Start: 57081, Stop: 57341, Start Num: 37

Candidate Starts for RiverMonster\_94:

(Start: 37 @57081 has 119 MA's), (50, 57102), (71, 57177), (84, 57246), (97, 57312),

Gene: RobinSparkles\_47 Start: 44442, Stop: 44158, Start Num: 54

Candidate Starts for RobinSparkles\_47:

(Start: 54 @44442 has 1 MA's), (89, 44256),

Gene: Rockne\_60 Start: 40562, Stop: 40846, Start Num: 19

Candidate Starts for Rockne\_60:

(15, 40535), (Start: 19 @40562 has 146 MA's), (27, 40586), (46, 40601), (63, 40646), (65, 40658), (78, 40736), (82, 40748), (88, 40772), (90, 40784), (103, 40838),

Gene: RockyHorror\_60 Start: 39611, Stop: 39892, Start Num: 19

Candidate Starts for RockyHorror\_60:

(15, 39584), (Start: 19 @39611 has 146 MA's), (27, 39635), (46, 39650), (63, 39695), (65, 39707), (82, 39797), (88, 39821), (90, 39833), (103, 39884),

Gene: RonRayGun\_41 Start: 31892, Stop: 32149, Start Num: 30

Candidate Starts for RonRayGun\_41:

(3, 31616), (4, 31637), (Start: 30 @31892 has 116 MA's), (65, 31976), (82, 32066),

Gene: Ronaldo\_96 Start: 48347, Stop: 48652, Start Num: 49

Candidate Starts for Ronaldo\_96:

(Start: 49 @48347 has 6 MA's), (61, 48380), (96, 48581), (104, 48605),

Gene: Rosmarinus\_50 Start: 37459, Stop: 37722, Start Num: 30

Candidate Starts for Rosmarinus\_50:

(Start: 30 @37459 has 116 MA's), (75, 37600),

Gene: Ruby\_55 Start: 39743, Stop: 40021, Start Num: 19

Candidate Starts for Ruby\_55:

(15, 39716), (Start: 19 @39743 has 146 MA's), (64, 39827), (66, 39836), (75, 39899), (78, 39914), (82, 39926), (88, 39950), (90, 39962), (103, 40013),

Gene: SCentae\_53 Start: 18353, Stop: 18634, Start Num: 18

Candidate Starts for SCentae\_53:

(Start: 18 @18353 has 2 MA's), (24, 18389), (65, 18464),

Gene: SG4\_56 Start: 39440, Stop: 39724, Start Num: 19

Candidate Starts for SG4\_56:

(Start: 19 @39440 has 146 MA's), (27, 39464), (46, 39479), (63, 39524), (65, 39536), (78, 39614), (82, 39626), (88, 39650), (90, 39662), (103, 39716),

Gene: Saal\_61 Start: 41196, Stop: 41477, Start Num: 19

Candidate Starts for Saal\_61:

(15, 41169), (Start: 19 @41196 has 146 MA's), (27, 41220), (46, 41235), (63, 41280), (65, 41292), (78, 41370), (82, 41382), (88, 41406), (90, 41418), (103, 41469),

Gene: Sabbb\_63 Start: 40884, Stop: 41165, Start Num: 19

Candidate Starts for Sabbb\_63:

(15, 40857), (Start: 19 @40884 has 146 MA's), (27, 40908), (46, 40923), (63, 40968), (65, 40980), (78, 41058), (82, 41070), (88, 41094), (90, 41106), (103, 41157),

Gene: Saints25\_92 Start: 56224, Stop: 56484, Start Num: 37  
Candidate Starts for Saints25\_92:  
(Start: 37 @56224 has 119 MA's), (50, 56245), (71, 56320), (84, 56389), (97, 56455),

Gene: SamuelLPlaqson\_51 Start: 38242, Stop: 38505, Start Num: 30  
Candidate Starts for SamuelLPlaqson\_51:  
(4, 37990), (Start: 30 @38242 has 116 MA's), (61, 38296), (72, 38365), (75, 38383),

Gene: Sassafras\_57 Start: 39528, Stop: 39806, Start Num: 19  
Candidate Starts for Sassafras\_57:  
(15, 39501), (Start: 19 @39528 has 146 MA's), (64, 39612), (66, 39621), (75, 39684), (78, 39699), (82, 39711), (88, 39735), (90, 39747), (103, 39798),

Gene: Sassay\_88 Start: 54914, Stop: 55174, Start Num: 37  
Candidate Starts for Sassay\_88:  
(Start: 37 @54914 has 119 MA's), (50, 54935), (71, 55010), (84, 55079), (97, 55145),

Gene: Sbash\_53 Start: 39707, Stop: 40006, Start Num: 23  
Candidate Starts for Sbash\_53:  
(Start: 23 @39707 has 6 MA's), (Start: 31 @39725 has 1 MA's), (51, 39761), (Start: 59 @39776 has 1 MA's), (75, 39872), (88, 39923), (94, 39959), (103, 39998),

Gene: Scarlett\_55 Start: 38559, Stop: 38834, Start Num: 30  
Candidate Starts for Scarlett\_55:  
(Start: 30 @38559 has 116 MA's), (Start: 34 @38565 has 2 MA's), (61, 38607), (65, 38631), (85, 38739), (105, 38823),

Gene: Schatzie\_127 Start: 71752, Stop: 71976, Start Num: 58  
Candidate Starts for Schatzie\_127:  
(Start: 58 @71752 has 28 MA's), (76, 71854), (78, 71869), (89, 71917), (92, 71929),

Gene: Scottish\_57 Start: 39568, Stop: 39852, Start Num: 19  
Candidate Starts for Scottish\_57:  
(15, 39541), (Start: 19 @39568 has 146 MA's), (27, 39592), (46, 39607), (63, 39652), (65, 39664), (78, 39742), (82, 39754), (88, 39778), (90, 39790), (103, 39844),

Gene: Seabastian\_64 Start: 42541, Stop: 42819, Start Num: 19  
Candidate Starts for Seabastian\_64:  
(15, 42514), (Start: 19 @42541 has 146 MA's), (64, 42625), (66, 42634), (75, 42697), (78, 42712), (82, 42724), (88, 42748), (90, 42760), (103, 42811),

Gene: Sejanus\_58 Start: 47696, Stop: 47995, Start Num: 23  
Candidate Starts for Sejanus\_58:  
(Start: 23 @47696 has 6 MA's), (Start: 31 @47714 has 1 MA's), (51, 47750), (Start: 59 @47765 has 1 MA's), (75, 47861), (88, 47912), (94, 47948), (101, 47981), (103, 47987),

Gene: SgtBeansprout\_46 Start: 37040, Stop: 37309, Start Num: 30  
Candidate Starts for SgtBeansprout\_46:  
(Start: 30 @37040 has 116 MA's), (70, 37136), (79, 37196), (81, 37202), (82, 37205), (88, 37232), (90, 37244), (102, 37298),

Gene: Shadow1\_56 Start: 38290, Stop: 38541, Start Num: 30  
Candidate Starts for Shadow1\_56:

(Start: 30 @38290 has 116 MA's), (Start: 34 @38296 has 2 MA's), (75, 38428),

Gene: ShamWow\_93 Start: 57094, Stop: 57354, Start Num: 37

Candidate Starts for ShamWow\_93:

(Start: 37 @57094 has 119 MA's), (50, 57115), (71, 57190), (84, 57259), (97, 57325),

Gene: Shaobing\_53 Start: 38322, Stop: 38585, Start Num: 30

Candidate Starts for Shaobing\_53:

(1, 37842), (2, 37998), (4, 38067), (Start: 30 @38322 has 116 MA's), (71, 38424), (72, 38442), (75, 38460), (88, 38514), (95, 38550), (102, 38574),

Gene: ShedlockHolmes\_54 Start: 37976, Stop: 38245, Start Num: 26

Candidate Starts for ShedlockHolmes\_54:

(4, 37736), (Start: 26 @37976 has 8 MA's), (39, 38000), (75, 38120), (88, 38174),

Gene: ShereKhan\_91 Start: 57206, Stop: 57466, Start Num: 37

Candidate Starts for ShereKhan\_91:

(Start: 37 @57206 has 119 MA's), (50, 57227), (71, 57302), (84, 57371), (97, 57437),

Gene: ShiLan\_58 Start: 39969, Stop: 40253, Start Num: 19

Candidate Starts for ShiLan\_58:

(15, 39942), (Start: 19 @39969 has 146 MA's), (27, 39993), (46, 40008), (63, 40053), (65, 40065), (78, 40143), (82, 40155), (88, 40179), (90, 40191), (103, 40245),

Gene: ShiaSurprise\_51 Start: 37668, Stop: 37931, Start Num: 30

Candidate Starts for ShiaSurprise\_51:

(Start: 30 @37668 has 116 MA's), (75, 37809),

Gene: ShowerHandel\_60 Start: 39936, Stop: 40217, Start Num: 19

Candidate Starts for ShowerHandel\_60:

(15, 39909), (Start: 19 @39936 has 146 MA's), (27, 39960), (46, 39975), (63, 40020), (65, 40032), (78, 40110), (82, 40122), (88, 40146), (90, 40158), (103, 40209),

Gene: ShroomBoi\_61 Start: 40896, Stop: 41177, Start Num: 19

Candidate Starts for ShroomBoi\_61:

(15, 40869), (Start: 19 @40896 has 146 MA's), (27, 40920), (46, 40935), (63, 40980), (65, 40992), (78, 41070), (82, 41082), (88, 41106), (90, 41118), (103, 41169),

Gene: Shweta\_42 Start: 30626, Stop: 30925, Start Num: 23

Candidate Starts for Shweta\_42:

(Start: 23 @30626 has 6 MA's), (Start: 31 @30644 has 1 MA's), (51, 30680), (Start: 59 @30695 has 1 MA's), (75, 30791), (88, 30842), (94, 30878), (101, 30911),

Gene: SiSi\_57 Start: 39342, Stop: 39626, Start Num: 19

Candidate Starts for SiSi\_57:

(15, 39315), (Start: 19 @39342 has 146 MA's), (27, 39366), (46, 39381), (63, 39426), (65, 39438), (78, 39516), (82, 39528), (88, 39552), (90, 39564), (103, 39618),

Gene: Simpliphy\_92 Start: 56214, Stop: 56474, Start Num: 37

Candidate Starts for Simpliphy\_92:

(Start: 37 @56214 has 119 MA's), (50, 56235), (71, 56310), (84, 56379), (97, 56445),

Gene: SimranZ1\_59 Start: 40122, Stop: 40400, Start Num: 19

Candidate Starts for SimranZ1\_59:

(15, 40095), (Start: 19 @40122 has 146 MA's), (64, 40206), (66, 40215), (75, 40278), (78, 40293), (82, 40305), (88, 40329), (90, 40341), (103, 40392),

Gene: SirDuracell\_93 Start: 55587, Stop: 55847, Start Num: 37

Candidate Starts for SirDuracell\_93:

(Start: 37 @55587 has 119 MA's), (50, 55608), (71, 55683), (84, 55752), (97, 55818),

Gene: SirPhilip\_53 Start: 38679, Stop: 38936, Start Num: 30

Candidate Starts for SirPhilip\_53:

(Start: 30 @38679 has 116 MA's), (72, 38799), (74, 38808), (75, 38817), (90, 38880), (95, 38904),

Gene: SkinnyPete\_42 Start: 29948, Stop: 30178, Start Num: 59

Candidate Starts for SkinnyPete\_42:

(Start: 23 @29879 has 6 MA's), (Start: 31 @29897 has 1 MA's), (51, 29933), (Start: 59 @29948 has 1 MA's), (75, 30044), (88, 30095), (94, 30131), (101, 30164), (103, 30170),

Gene: Slimphazie\_50 Start: 37354, Stop: 37617, Start Num: 30

Candidate Starts for Slimphazie\_50:

(Start: 30 @37354 has 116 MA's), (75, 37495),

Gene: SophKB\_90 Start: 55892, Stop: 56152, Start Num: 37

Candidate Starts for SophKB\_90:

(Start: 37 @55892 has 119 MA's), (50, 55913), (71, 55988), (84, 56057), (97, 56123),

Gene: Sotrice96\_94 Start: 56480, Stop: 56740, Start Num: 37

Candidate Starts for Sotrice96\_94:

(Start: 37 @56480 has 119 MA's), (50, 56501), (71, 56576), (84, 56645), (97, 56711),

Gene: Soul22\_65 Start: 41527, Stop: 41811, Start Num: 19

Candidate Starts for Soul22\_65:

(15, 41500), (Start: 19 @41527 has 146 MA's), (27, 41551), (46, 41566), (63, 41611), (65, 41623), (78, 41701), (82, 41713), (88, 41737), (90, 41749), (103, 41803),

Gene: Spartacus\_61 Start: 40606, Stop: 40887, Start Num: 19

Candidate Starts for Spartacus\_61:

(15, 40579), (Start: 19 @40606 has 146 MA's), (27, 40630), (46, 40645), (63, 40690), (65, 40702), (78, 40780), (82, 40792), (88, 40816), (90, 40828), (103, 40879),

Gene: Spikelee\_66 Start: 42226, Stop: 42507, Start Num: 19

Candidate Starts for Spikelee\_66:

(15, 42199), (Start: 19 @42226 has 146 MA's), (27, 42250), (46, 42265), (63, 42310), (65, 42322), (78, 42400), (82, 42412), (88, 42436), (90, 42448), (103, 42499),

Gene: Spock\_50 Start: 37472, Stop: 37735, Start Num: 30

Candidate Starts for Spock\_50:

(Start: 30 @37472 has 116 MA's), (75, 37613),

Gene: Spoonbill\_56 Start: 38516, Stop: 38794, Start Num: 19

Candidate Starts for Spoonbill\_56:

(15, 38489), (Start: 19 @38516 has 146 MA's), (64, 38600), (66, 38609), (75, 38672), (78, 38687), (82, 38699), (88, 38723), (90, 38735), (103, 38786),

Gene: Squiddly\_71 Start: 45719, Stop: 45979, Start Num: 31  
Candidate Starts for Squiddly\_71:  
(Start: 19 @45680 has 146 MA's), (Start: 31 @45719 has 1 MA's), (61, 45782), (63, 45794), (72, 45851), (82, 45896), (100, 45971),

Gene: Squint\_127 Start: 69127, Stop: 69354, Start Num: 56  
Candidate Starts for Squint\_127:  
(Start: 56 @69127 has 11 MA's), (82, 69262), (87, 69286), (89, 69298),

Gene: StagePhright\_7 Start: 5180, Stop: 4923, Start Num: 57  
Candidate Starts for StagePhright\_7:  
(27, 5240), (Start: 57 @5180 has 5 MA's), (75, 5066), (92, 4991), (101, 4946),

Gene: Stank\_95 Start: 56873, Stop: 57133, Start Num: 37  
Candidate Starts for Stank\_95:  
(Start: 37 @56873 has 119 MA's), (50, 56894), (71, 56969), (84, 57038), (97, 57104),

Gene: Stap\_57 Start: 39317, Stop: 39595, Start Num: 19  
Candidate Starts for Stap\_57:  
(15, 39290), (Start: 19 @39317 has 146 MA's), (64, 39401), (66, 39410), (75, 39473), (78, 39488), (82, 39500), (88, 39524), (90, 39536), (103, 39587),

Gene: Starcevich\_59 Start: 40105, Stop: 40383, Start Num: 19  
Candidate Starts for Starcevich\_59:  
(12, 40069), (Start: 19 @40105 has 146 MA's), (27, 40129), (63, 40186), (65, 40198), (78, 40276), (82, 40288), (88, 40312), (90, 40324), (103, 40375),

Gene: Stark\_95 Start: 56964, Stop: 57224, Start Num: 37  
Candidate Starts for Stark\_95:  
(Start: 37 @56964 has 119 MA's), (50, 56985), (71, 57060), (84, 57129), (97, 57195),

Gene: StellaBean\_89 Start: 56418, Stop: 56678, Start Num: 37  
Candidate Starts for StellaBean\_89:  
(Start: 37 @56418 has 119 MA's), (50, 56439), (71, 56514), (84, 56583), (97, 56649),

Gene: Stinson\_51 Start: 37846, Stop: 38109, Start Num: 30  
Candidate Starts for Stinson\_51:  
(4, 37594), (Start: 30 @37846 has 116 MA's), (61, 37900), (75, 37987),

Gene: StolenFromERC\_96 Start: 56798, Stop: 57058, Start Num: 37  
Candidate Starts for StolenFromERC\_96:  
(Start: 37 @56798 has 119 MA's), (50, 56819), (71, 56894), (84, 56963), (97, 57029),

Gene: Strobilo\_58 Start: 39537, Stop: 39767, Start Num: 38  
Candidate Starts for Strobilo\_58:  
(Start: 36 @39534 has 6 MA's), (Start: 38 @39537 has 3 MA's), (42, 39543), (47, 39549), (72, 39639), (73, 39645), (88, 39708),

Gene: Strokeseat\_55 Start: 38052, Stop: 38333, Start Num: 19  
Candidate Starts for Strokeseat\_55:  
(15, 38025), (Start: 19 @38052 has 146 MA's), (27, 38076), (46, 38091), (63, 38136), (65, 38148), (78, 38226), (82, 38238), (88, 38262), (90, 38274), (103, 38325),

Gene: Sulley\_50 Start: 37598, Stop: 37861, Start Num: 30

Candidate Starts for Sulley\_50:

(Start: 30 @37598 has 116 MA's), (75, 37739),

Gene: Sunflower1121\_57 Start: 38391, Stop: 38642, Start Num: 30

Candidate Starts for Sunflower1121\_57:

(Start: 30 @38391 has 116 MA's), (Start: 34 @38397 has 2 MA's), (75, 38529),

Gene: Superphikiman\_126 Start: 68039, Stop: 68266, Start Num: 56

Candidate Starts for Superphikiman\_126:

(Start: 56 @68039 has 11 MA's), (82, 68174), (87, 68198), (89, 68210),

Gene: SwagPigglett\_64 Start: 42244, Stop: 42525, Start Num: 19

Candidate Starts for SwagPigglett\_64:

(15, 42217), (Start: 19 @42244 has 146 MA's), (27, 42268), (46, 42283), (63, 42328), (65, 42340), (78, 42418), (82, 42430), (88, 42454), (90, 42466), (103, 42517),

Gene: Syra333\_56 Start: 38055, Stop: 38306, Start Num: 30

Candidate Starts for Syra333\_56:

(Start: 30 @38055 has 116 MA's), (Start: 34 @38061 has 2 MA's), (73, 38181), (75, 38193),

Gene: TBond007\_51 Start: 37450, Stop: 37719, Start Num: 26

Candidate Starts for TBond007\_51:

(4, 37210), (Start: 26 @37450 has 8 MA's), (39, 37474), (75, 37594), (88, 37648),

Gene: TBrady12\_96 Start: 56634, Stop: 56894, Start Num: 37

Candidate Starts for TBrady12\_96:

(Start: 37 @56634 has 119 MA's), (50, 56655), (71, 56730), (84, 56799), (97, 56865),

Gene: TChen\_60 Start: 41367, Stop: 41636, Start Num: 23

Candidate Starts for TChen\_60:

(11, 41322), (Start: 19 @41358 has 146 MA's), (Start: 23 @41367 has 6 MA's), (61, 41424), (64, 41442), (66, 41451), (75, 41514), (78, 41529), (82, 41541), (88, 41565), (90, 41577), (103, 41628),

Gene: TClif\_55 Start: 38425, Stop: 38685, Start Num: 32

Candidate Starts for TClif\_55:

(Start: 32 @38425 has 7 MA's), (61, 38467), (82, 38581), (85, 38599), (102, 38674),

Gene: TM4\_49 Start: 33917, Stop: 34147, Start Num: 38

Candidate Starts for TM4\_49:

(Start: 36 @33914 has 6 MA's), (Start: 38 @33917 has 3 MA's), (42, 33923), (47, 33929), (72, 34019), (73, 34025), (88, 34088),

Gene: Tachez\_50 Start: 37316, Stop: 37579, Start Num: 30

Candidate Starts for Tachez\_50:

(Start: 30 @37316 has 116 MA's), (75, 37457),

Gene: TaiwanKao\_52 Start: 37612, Stop: 37875, Start Num: 30

Candidate Starts for TaiwanKao\_52:

(Start: 30 @37612 has 116 MA's), (75, 37753),

Gene: Taj\_63 Start: 41748, Stop: 41978, Start Num: 52

Candidate Starts for Taj\_63:

(Start: 52 @41748 has 1 MA's), (Start: 58 @41757 has 28 MA's), (78, 41871), (82, 41883), (88, 41907), (90, 41919), (103, 41970),

Gene: Taptic\_55 Start: 44928, Stop: 45209, Start Num: 20

Candidate Starts for Taptic\_55:

(Start: 20 @44928 has 10 MA's), (50, 44988), (67, 45045), (80, 45117), (97, 45189),

Gene: Tarkin\_92 Start: 56882, Stop: 57142, Start Num: 37

Candidate Starts for Tarkin\_92:

(Start: 37 @56882 has 119 MA's), (50, 56903), (71, 56978), (84, 57047), (97, 57113),

Gene: TeardropMSU\_89 Start: 55882, Stop: 56142, Start Num: 37

Candidate Starts for TeardropMSU\_89:

(Start: 37 @55882 has 119 MA's), (50, 55903), (71, 55978), (84, 56047), (97, 56113),

Gene: Teaspoon\_90 Start: 56734, Stop: 56994, Start Num: 37

Candidate Starts for Teaspoon\_90:

(Start: 37 @56734 has 119 MA's), (50, 56755), (71, 56830), (84, 56899), (97, 56965),

Gene: Terminus\_96 Start: 57669, Stop: 57929, Start Num: 37

Candidate Starts for Terminus\_96:

(Start: 37 @57669 has 119 MA's), (50, 57690), (71, 57765), (84, 57834), (97, 57900),

Gene: ThetaBob\_64 Start: 41432, Stop: 41710, Start Num: 19

Candidate Starts for ThetaBob\_64:

(11, 41396), (Start: 19 @41432 has 146 MA's), (Start: 23 @41441 has 6 MA's), (61, 41498), (64, 41516), (66, 41525), (75, 41588), (78, 41603), (82, 41615), (88, 41639), (90, 41651), (103, 41702),

Gene: Thibault\_113 Start: 66424, Stop: 66648, Start Num: 58

Candidate Starts for Thibault\_113:

(Start: 58 @66424 has 28 MA's), (76, 66526), (78, 66541), (89, 66589),

Gene: ThreeRngTarjay\_127 Start: 72247, Stop: 72471, Start Num: 58

Candidate Starts for ThreeRngTarjay\_127:

(Start: 58 @72247 has 28 MA's), (76, 72349), (78, 72364), (89, 72412),

Gene: Thresher\_96 Start: 57744, Stop: 58004, Start Num: 37

Candidate Starts for Thresher\_96:

(Start: 37 @57744 has 119 MA's), (50, 57765), (71, 57840), (84, 57909), (97, 57975),

Gene: Tierra\_54 Start: 37943, Stop: 38200, Start Num: 30

Candidate Starts for Tierra\_54:

(Start: 30 @37943 has 116 MA's), (40, 37964), (65, 38018), (75, 38081), (77, 38090), (95, 38168),

Gene: TiniBug\_51 Start: 38238, Stop: 38501, Start Num: 30

Candidate Starts for TiniBug\_51:

(4, 37986), (Start: 30 @38238 has 116 MA's), (61, 38292), (72, 38361), (75, 38379),

Gene: TinyDot\_55 Start: 34530, Stop: 34790, Start Num: 33

Candidate Starts for TinyDot\_55:

(33, 34530), (90, 34740),

Gene: Tiri\_51 Start: 37646, Stop: 37909, Start Num: 30



Candidate Starts for Tiri\_51:

(Start: 30 @37646 has 116 MA's), (61, 37700), (75, 37787),

Gene: Tomaszewski\_88 Start: 56045, Stop: 56305, Start Num: 37

Candidate Starts for Tomaszewski\_88:

(Start: 37 @56045 has 119 MA's), (50, 56066), (71, 56141), (84, 56210), (97, 56276),

Gene: Tootsieroll\_60 Start: 39265, Stop: 39549, Start Num: 19

Candidate Starts for Tootsieroll\_60:

(15, 39238), (Start: 19 @39265 has 146 MA's), (27, 39289), (46, 39304), (63, 39349), (65, 39361), (78, 39439), (82, 39451), (88, 39475), (90, 39487), (103, 39541),

Gene: Topper\_50 Start: 37471, Stop: 37734, Start Num: 30

Candidate Starts for Topper\_50:

(Start: 30 @37471 has 116 MA's), (75, 37612),

Gene: Totinger\_61 Start: 39195, Stop: 39479, Start Num: 19

Candidate Starts for Totinger\_61:

(15, 39168), (Start: 19 @39195 has 146 MA's), (27, 39219), (46, 39234), (63, 39279), (65, 39291), (78, 39369), (82, 39381), (88, 39405), (90, 39417), (103, 39471),

Gene: Toto\_91 Start: 57094, Stop: 57354, Start Num: 37

Candidate Starts for Toto\_91:

(Start: 37 @57094 has 119 MA's), (50, 57115), (71, 57190), (84, 57259), (97, 57325),

Gene: Traaww1\_89 Start: 55902, Stop: 56162, Start Num: 37

Candidate Starts for Traaww1\_89:

(Start: 37 @55902 has 119 MA's), (50, 55923), (71, 55998), (84, 56067), (97, 56133),

Gene: TreyKay\_51 Start: 37556, Stop: 37819, Start Num: 30

Candidate Starts for TreyKay\_51:

(Start: 30 @37556 has 116 MA's), (61, 37610), (75, 37697),

Gene: TribbleTrouble\_50 Start: 37335, Stop: 37601, Start Num: 26

Candidate Starts for TribbleTrouble\_50:

(Start: 26 @37335 has 8 MA's), (39, 37356), (48, 37362), (75, 37476), (85, 37521), (88, 37530),

Gene: TruffulaTree\_50 Start: 37350, Stop: 37613, Start Num: 30

Candidate Starts for TruffulaTree\_50:

(Start: 30 @37350 has 116 MA's), (75, 37491),

Gene: Tuco\_94 Start: 57641, Stop: 57901, Start Num: 37

Candidate Starts for Tuco\_94:

(Start: 37 @57641 has 119 MA's), (50, 57662), (71, 57737), (84, 57806), (97, 57872),

Gene: Twitch\_50 Start: 37473, Stop: 37736, Start Num: 30

Candidate Starts for Twitch\_50:

(Start: 30 @37473 has 116 MA's), (75, 37614),

Gene: Ubuntu\_75 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for Ubuntu\_75:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Ukulele\_88 Start: 56027, Stop: 56287, Start Num: 37

Candidate Starts for Ukulele\_88:

(Start: 37 @56027 has 119 MA's), (50, 56048), (71, 56123), (84, 56192), (97, 56258),

Gene: UncleRicky\_58 Start: 40176, Stop: 40460, Start Num: 19

Candidate Starts for UncleRicky\_58:

(15, 40149), (Start: 19 @40176 has 146 MA's), (27, 40200), (46, 40215), (63, 40260), (65, 40272), (78, 40350), (82, 40362), (88, 40386), (90, 40398), (103, 40452),

Gene: Unicorn\_53 Start: 37175, Stop: 37432, Start Num: 30

Candidate Starts for Unicorn\_53:

(Start: 30 @37175 has 116 MA's), (40, 37196), (65, 37250), (75, 37313), (77, 37322), (95, 37400),

Gene: Urkel\_51 Start: 38242, Stop: 38505, Start Num: 30

Candidate Starts for Urkel\_51:

(4, 37990), (Start: 30 @38242 has 116 MA's), (61, 38296), (72, 38365), (75, 38383),

Gene: VRedHorse\_59 Start: 39252, Stop: 39533, Start Num: 19

Candidate Starts for VRedHorse\_59:

(15, 39225), (Start: 19 @39252 has 146 MA's), (27, 39276), (46, 39291), (63, 39336), (65, 39348), (78, 39426), (82, 39438), (88, 39462), (90, 39474), (103, 39525),

Gene: VWB\_44 Start: 35402, Stop: 35647, Start Num: 38

Candidate Starts for VWB\_44:

(7, 35270), (9, 35279), (10, 35282), (Start: 23 @35369 has 6 MA's), (Start: 36 @35399 has 6 MA's), (Start: 38 @35402 has 3 MA's), (75, 35531), (83, 35564), (88, 35582),

Gene: Validus\_55 Start: 38351, Stop: 38623, Start Num: 30

Candidate Starts for Validus\_55:

(Start: 30 @38351 has 116 MA's), (Start: 35 @38363 has 2 MA's), (71, 38453), (72, 38471), (75, 38489), (82, 38516), (99, 38594),

Gene: Veliki\_51 Start: 37390, Stop: 37653, Start Num: 30

Candidate Starts for Veliki\_51:

(Start: 30 @37390 has 116 MA's), (75, 37531),

Gene: Veteran\_56 Start: 38956, Stop: 39237, Start Num: 19

Candidate Starts for Veteran\_56:

(15, 38929), (Start: 19 @38956 has 146 MA's), (64, 39040), (66, 39049), (78, 39127), (82, 39139), (88, 39163), (90, 39175), (103, 39229),

Gene: Volt\_97 Start: 48511, Stop: 48816, Start Num: 49

Candidate Starts for Volt\_97:

(Start: 49 @48511 has 6 MA's), (61, 48544), (96, 48745), (104, 48769),

Gene: Wanda\_130 Start: 69382, Stop: 69606, Start Num: 58

Candidate Starts for Wanda\_130:

(Start: 58 @69382 has 28 MA's), (76, 69484), (78, 69499), (89, 69547),

Gene: Webster2\_75 Start: 48849, Stop: 49157, Start Num: 17

Candidate Starts for Webster2\_75:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Wee\_63 Start: 41773, Stop: 42054, Start Num: 19

Candidate Starts for Wee\_63:

(Start: 19 @41773 has 146 MA's), (27, 41797), (46, 41812), (63, 41857), (65, 41869), (78, 41947), (82, 41959), (88, 41983), (90, 41995), (103, 42046),

Gene: Whouxphf\_56 Start: 39848, Stop: 40129, Start Num: 19

Candidate Starts for Whouxphf\_56:

(15, 39821), (Start: 19 @39848 has 146 MA's), (27, 39872), (46, 39887), (63, 39932), (65, 39944), (78, 40022), (82, 40034), (88, 40058), (90, 40070), (103, 40121),

Gene: Wiggin\_95 Start: 56303, Stop: 56563, Start Num: 37

Candidate Starts for Wiggin\_95:

(Start: 37 @56303 has 119 MA's), (50, 56324), (71, 56399), (84, 56468), (97, 56534),

Gene: WillSterrel\_60 Start: 41723, Stop: 42004, Start Num: 19

Candidate Starts for WillSterrel\_60:

(15, 41696), (Start: 19 @41723 has 146 MA's), (27, 41747), (46, 41762), (63, 41807), (65, 41819), (78, 41897), (82, 41909), (88, 41933), (90, 41945), (103, 41996),

Gene: Willez\_88 Start: 54914, Stop: 55174, Start Num: 37

Candidate Starts for Willez\_88:

(Start: 37 @54914 has 119 MA's), (50, 54935), (71, 55010), (84, 55079), (97, 55145),

Gene: Wishmaker\_68 Start: 48876, Stop: 49157, Start Num: 20

Candidate Starts for Wishmaker\_68:

(16, 48843), (Start: 17 @48849 has 20 MA's), (Start: 20 @48876 has 10 MA's), (33, 48909), (69, 49011), (72, 49038), (98, 49149),

Gene: Xandras\_92 Start: 56126, Stop: 56386, Start Num: 37

Candidate Starts for Xandras\_92:

(Start: 37 @56126 has 119 MA's), (50, 56147), (71, 56222), (84, 56291), (97, 56357),

Gene: Ximenita\_57 Start: 38244, Stop: 38495, Start Num: 30

Candidate Starts for Ximenita\_57:

(Start: 30 @38244 has 116 MA's), (Start: 34 @38250 has 2 MA's), (75, 38382),

Gene: YassJohnny\_90 Start: 55767, Stop: 56027, Start Num: 37

Candidate Starts for YassJohnny\_90:

(Start: 37 @55767 has 119 MA's), (50, 55788), (71, 55863), (84, 55932), (97, 55998),

Gene: Yeet\_123 Start: 70969, Stop: 71193, Start Num: 58

Candidate Starts for Yeet\_123:

(Start: 58 @70969 has 28 MA's), (76, 71071), (78, 71086), (89, 71134),

Gene: Yorick\_58 Start: 40310, Stop: 40591, Start Num: 19

Candidate Starts for Yorick\_58:

(15, 40283), (Start: 19 @40310 has 146 MA's), (27, 40334), (46, 40349), (63, 40394), (65, 40406), (78, 40484), (82, 40496), (88, 40520), (90, 40532), (103, 40583),

Gene: Yoshi\_72 Start: 41696, Stop: 41974, Start Num: 19

Candidate Starts for Yoshi\_72:

(11, 41660), (Start: 19 @41696 has 146 MA's), (Start: 23 @41705 has 6 MA's), (61, 41762), (64, 41780), (66, 41789), (75, 41852), (78, 41867), (82, 41879), (88, 41903), (90, 41915), (103, 41966),

Gene: Youngblood\_96 Start: 57596, Stop: 57856, Start Num: 37

Candidate Starts for Youngblood\_96:

(Start: 37 @57596 has 119 MA's), (50, 57617), (71, 57692), (84, 57761), (97, 57827),

Gene: YoureAdopted\_49 Start: 37555, Stop: 37818, Start Num: 30

Candidate Starts for YoureAdopted\_49:

(Start: 30 @37555 has 116 MA's), (75, 37696),

Gene: Yuna\_57 Start: 39151, Stop: 39429, Start Num: 30

Candidate Starts for Yuna\_57:

(5, 39004), (Start: 30 @39151 has 116 MA's), (75, 39280), (85, 39325), (88, 39334),

Gene: Yunkel11\_53 Start: 37143, Stop: 37406, Start Num: 30

Candidate Starts for Yunkel11\_53:

(Start: 30 @37143 has 116 MA's), (Start: 35 @37155 has 2 MA's), (72, 37266), (75, 37284),

Gene: Zabiza\_46 Start: 33661, Stop: 33924, Start Num: 30

Candidate Starts for Zabiza\_46:

(Start: 30 @33661 has 116 MA's), (75, 33802),

Gene: Zapner\_72 Start: 41849, Stop: 42133, Start Num: 19

Candidate Starts for Zapner\_72:

(15, 41822), (Start: 19 @41849 has 146 MA's), (27, 41873), (46, 41888), (63, 41933), (65, 41945), (78, 42023), (82, 42035), (88, 42059), (90, 42071), (103, 42125),

Gene: Zavala\_52 Start: 37632, Stop: 37895, Start Num: 30

Candidate Starts for Zavala\_52:

(Start: 30 @37632 has 116 MA's), (75, 37773),

Gene: Zelink\_126 Start: 72194, Stop: 72418, Start Num: 58

Candidate Starts for Zelink\_126:

(Start: 58 @72194 has 28 MA's), (76, 72296), (78, 72311), (89, 72359),

Gene: ZenTime222\_40 Start: 31446, Stop: 31703, Start Num: 30

Candidate Starts for ZenTime222\_40:

(3, 31170), (4, 31191), (Start: 30 @31446 has 116 MA's), (65, 31530), (82, 31620),

Gene: Zerg\_59 Start: 39720, Stop: 40004, Start Num: 19

Candidate Starts for Zerg\_59:

(15, 39693), (Start: 19 @39720 has 146 MA's), (27, 39744), (46, 39759), (63, 39804), (65, 39816), (78, 39894), (82, 39906), (88, 39930), (90, 39942), (103, 39996),

Gene: Ziko\_96 Start: 48332, Stop: 48637, Start Num: 49

Candidate Starts for Ziko\_96:

(Start: 49 @48332 has 6 MA's), (61, 48365), (96, 48566), (104, 48590),

Gene: Zizzle\_63 Start: 41563, Stop: 41847, Start Num: 19

Candidate Starts for Zizzle\_63:

(15, 41536), (Start: 19 @41563 has 146 MA's), (27, 41587), (46, 41602), (63, 41647), (65, 41659), (78, 41737), (82, 41749), (88, 41773), (90, 41785), (103, 41839),

Gene: ZoeJ\_53 Start: 39008, Stop: 39238, Start Num: 38

Candidate Starts for ZoeJ\_53:

(Start: 36 @39005 has 6 MA's), (Start: 38 @39008 has 3 MA's), (42, 39014), (47, 39020), (72, 39110), (73, 39116), (88, 39179),

Gene: xkcd\_96 Start: 57780, Stop: 58040, Start Num: 37

Candidate Starts for xkcd\_96:

(Start: 37 @57780 has 119 MA's), (50, 57801), (71, 57876), (84, 57945), (97, 58011),