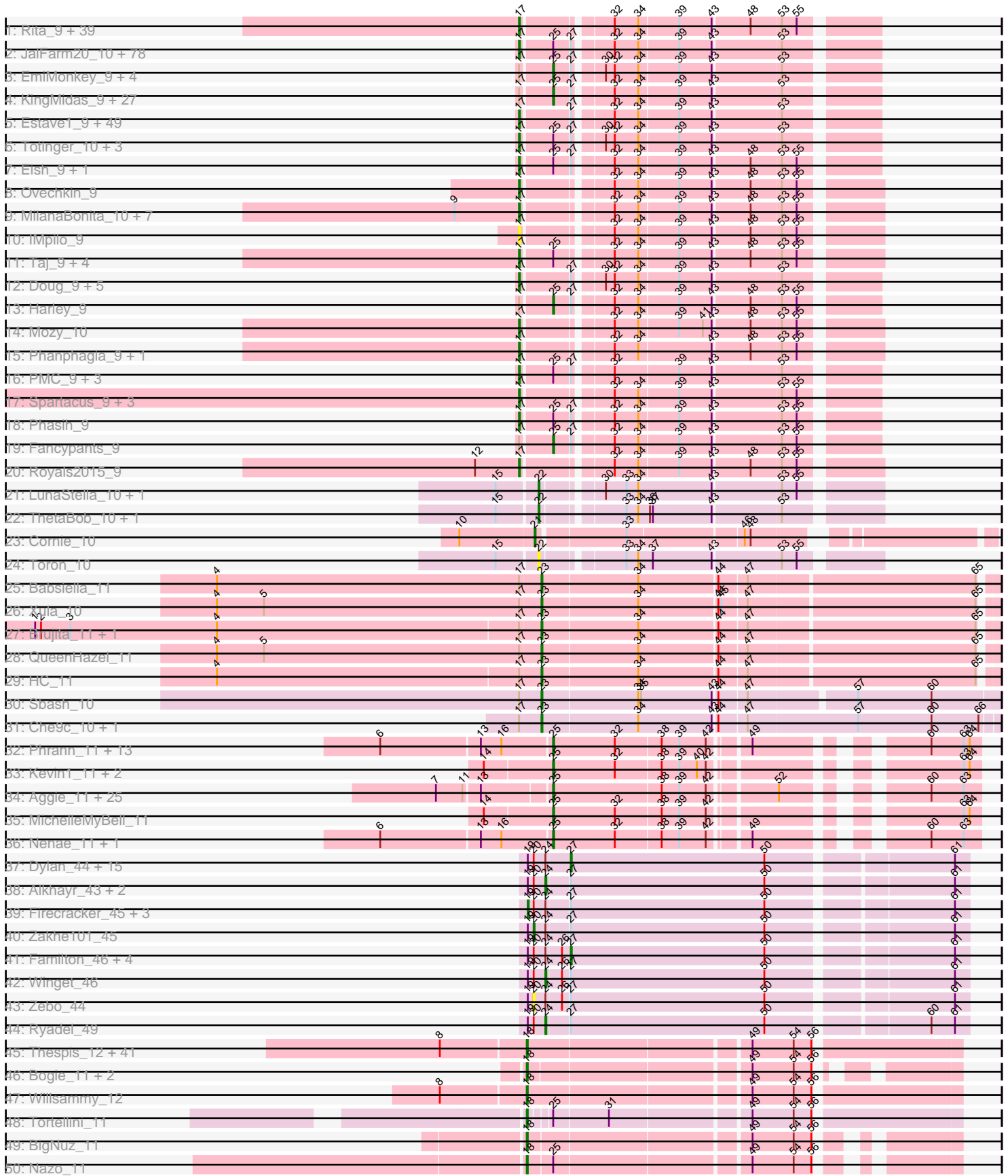
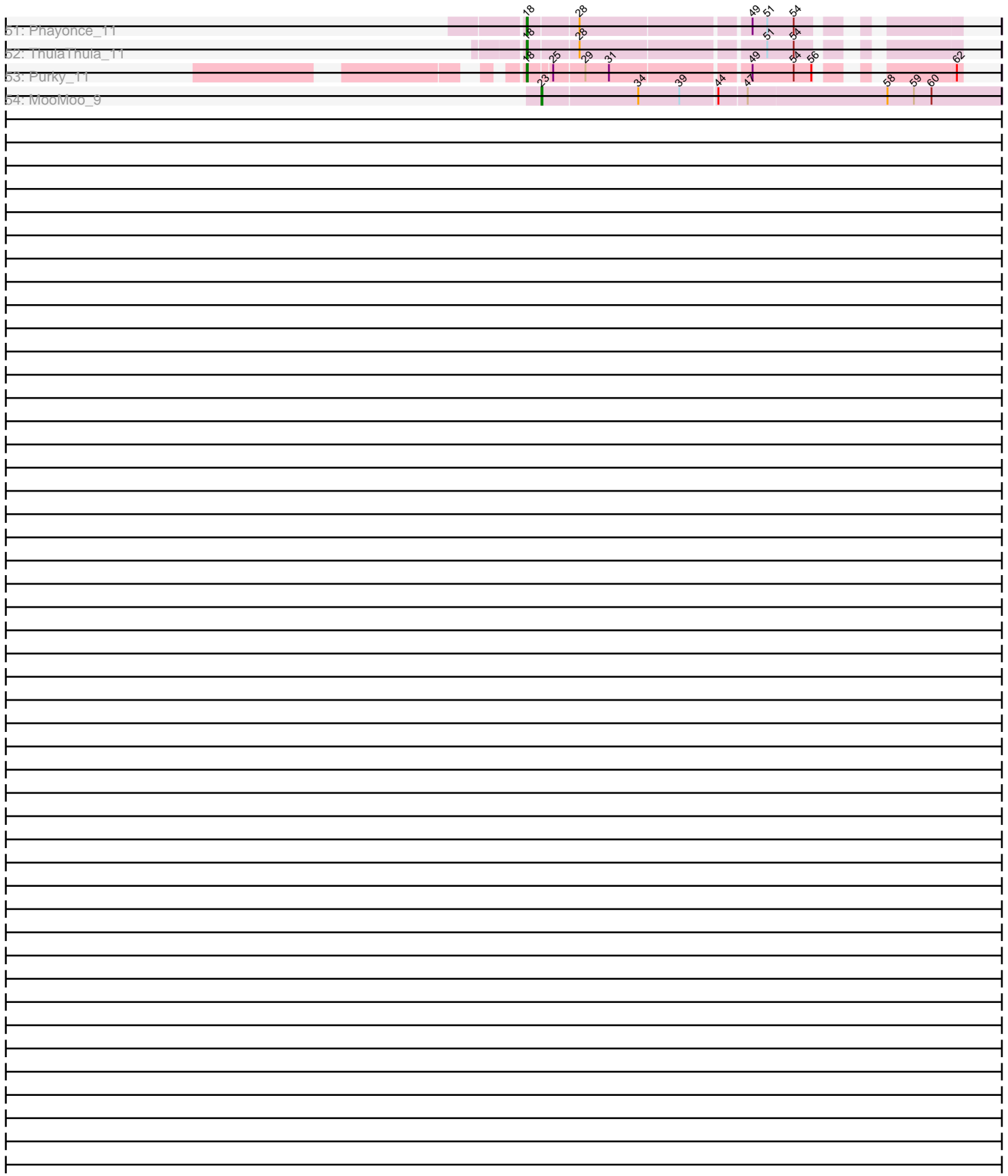


Pham 221032



Pham 221032



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 221032 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221032 has 390 members, 41 are drafts.

Phages represented in each track:

- Track 1 : Rita\_9, DotProduct\_9, LunaBlu\_9, NewHope4\_9, StAnnes\_9, Batiatus\_9, Phalconet\_9, PopTart\_9, XFactor\_9, Kenuha5\_9, Corium\_9, MinionDave\_10, SuperGrey\_9, Bipolar\_9, Melissauraen88\_9, PhesterPhotato\_9, EleanorGeorge\_9, Aubs\_9, Fruitloop\_9, Polo2Bam\_10, Guppsters\_9, Krakatau\_10, Galactic\_9, Firehouse51\_9, Chevrolet\_9, SG4\_9, MilleniumForce\_10, DoRead\_9, Cornucopia\_10, DillTech15\_9, Chuckly\_9, Whatsapiecost\_9, Tweety\_9, KingJulian\_9, Hamulus\_9, Ardmore\_9, SassyB\_9, ArcusAngelus\_9, CaptainTrips\_10, Filuzino\_9
- Track 2 : JalFarm20\_10, Flathead\_10, Scottish\_9, ByChance\_9, Wachhund\_9, Zerg\_9, Saal\_9, Tootsieroll\_10, VRedHorse\_9, TootsiePop\_10, Dorothy\_9, Florinda\_9, OldBen\_9, Burwell21\_9, Latretium\_9, BlueCrab\_9, Fastidio\_9, DocMcStuffins\_10, Girr\_9, Polka14\_9, Nimbo\_9, Nivrat\_9, Leperchaun\_9, Dante\_9, Sandalphon\_9, Coco12\_10, Nitzel\_10, Crumble\_9, RedBird\_9, Bobi\_10, Minnie\_9, Empress\_9, Job42\_10, Alexphander\_10, Inventum\_9, Koella\_9, Maravista\_9, Sassafras\_9, Byougenkin\_9, Deb65\_9, DaddyRickover\_9, Kersh\_9, LilMoolah\_9, SwagPigglett\_9, Stap\_10, Mahavrat\_9, Ogopogo\_12, Mattes\_9, Eradicator\_9, FreddyB\_9, Hegedechwinu\_10, Awesomesauce\_10, Radiance\_9, Squirty\_10, Bubbles123\_9, RitaG\_9, Che8\_9, NormanBulbieJr\_9, BuzzLyseyear\_10, Whouxphf\_9, Gandalph\_9, OlympiaSaint\_9, ShiLan\_9, Jarcob\_9, Martik\_9, MisterCuddles\_9, BodEinwohner17\_9, SimranZ1\_10, PHappiness\_9, JoeyJr\_9, Misha28\_10, Clifton\_9, Spoonbill\_9, Geralt\_9, Doomphist\_9, Brocalys\_9, Ruby\_9, Priscilla\_9, Marker\_10
- Track 3 : EmiMonkey\_9, PhlipPhlop\_9, Emmaloid\_11, Mantra\_9, Slim\_11
- Track 4 : KingMidas\_9, BobaPhett\_9, Aloeri\_10, Vivum\_9, MulchSalad\_9, ChickenDinner\_10, James\_9, Pacc40\_9, ShowerHandel\_9, Cabrinians\_9, Brushbloom\_11, Zizzle\_9, Ramsey\_10, Piper2020\_10, Gorge\_9, Pippy\_9, Philus\_9, Violac\_9, Grimmer\_10, Seagreen\_10, CheesePuff\_9, Yorick\_9, LastJedi\_9, Lizziana\_9, IbOuu\_9, Daenerys\_9, Poenanya\_9, Frankie\_10
- Track 5 : Estave1\_9, Madiba\_10, Seabastian\_9, Cerasum\_10, UncleRicky\_10, Veteran\_9, Lorde\_10, Sabbb\_9, OwlsT2W\_10, BigPhil\_10, Hades\_9, Juniper1\_9, Boomer\_10, Modragons\_9, Hlubikazi\_9, MadMen\_9, DaWorst\_10, Leozinho\_10, Donkeykong\_9, Brookers\_10, DosHalletts\_10, Ochi17\_9, Tchotchke\_10, Spikelee\_10, Quico\_10, Oksu\_10, Plumbus\_10, RockyHorror\_10, TDanisky\_9, Girafales\_10, Velveteen\_10, DRBy19\_9, Kimberlium\_10, Beakin\_10, Strokeseat\_9, Juice456\_10, Karhdo\_9, MulchExplorer\_11, Llama\_9, Enby\_10, AlpineSix\_9, GUmbe\_9, Sparkdehlily\_9, Mandlovu\_9, DirtMcgirt\_10, OfUltron\_9, Sarma624\_10, Kingsley\_10, Drago\_10, Jinglebell\_9

- Track 6 : Totinger\_10, GigiOuiOui\_9, Rialto\_10, Moonbeam\_9
- Track 7 : Eish\_9, Ibhubesi\_9
- Track 8 : Ovechkin\_9
- Track 9 : MilanaBonita\_10, Ms6\_9, SiSi\_9, QuickMath\_9, KristaRAM\_10, Jant\_9, DLane\_9, Akhila\_10
- Track 10 : IMpilo\_9
- Track 11 : Taj\_9, Wee\_9, DeadP\_9, ShroomBoi\_9, Emma\_9
- Track 12 : Doug\_9, LittleShirley\_10, Mova\_10, Starcevich\_10, Blexus\_9, Pollywog\_10
- Track 13 : Harley\_9
- Track 14 : Mozy\_10
- Track 15 : Phanphagia\_9, Shauna1\_9
- Track 16 : PMC\_9, Phatniss\_9, Llij\_9, Rockne\_9
- Track 17 : Spartacus\_9, IrishSherpFalk\_9, Mutaforma13\_9, WillSterrel\_9
- Track 18 : Phasih\_9
- Track 19 : Fancypants\_9
- Track 20 : Royals2015\_9
- Track 21 : LunaStella\_10, TChen\_10
- Track 22 : ThetaBob\_10, Renaud18\_10
- Track 23 : Cornie\_10
- Track 24 : Toron\_10
- Track 25 : Babsiella\_11
- Track 26 : Xula\_10
- Track 27 : Brujita\_11, Island3\_11
- Track 28 : QueenHazel\_11
- Track 29 : HC\_11
- Track 30 : Sbash\_10
- Track 31 : Che9c\_10, Stuck\_10
- Track 32 : Phrann\_11, Rebel\_11, Redi\_11, Panchino\_11, PhancyPhin\_11, Shweta\_11, ShrimpFriedEgg\_11, Snekmaggedon\_11, Raymond7\_11, Jamie19\_11, Hanako\_11, SkinnyPete\_11, BabeRuth\_11, SpongeBob\_11
- Track 33 : Kevin1\_11, Butters\_11, Rubeelu\_11
- Track 34 : Aggie\_11, Smurph\_11, Bosection6\_11, Fulbright\_11, Journey\_11, Andies\_11, Gex\_11, Schnauzer\_11, Scitech\_11, Carcharodon\_11, Silvy\_11, Charlie\_11, EGUnicorn\_11, Melville\_11, Parmesanjohn\_11, Silvafighter\_11, Duplicity\_11, Xerxes\_11, Tortoise12\_11, Pilonius\_11, Pipsqueaks\_11, Xeno\_11, Phloss\_11, Tapioca\_11, Magsby\_11, Chewbacca\_11
- Track 35 : MichelleMyBell\_11
- Track 36 : Nенаe\_11, Purgamenstris\_11
- Track 37 : Dylan\_44, Smooch\_47, FoulBall\_45, Ashwin\_46, Murai\_45, Schuy\_46, Krili\_44, NiebruSaylor\_44, Mori\_44, YungJamal\_48, Wildflower\_45, Wogge42\_44, Shida\_45, Vorrrps\_44, Vagabond\_45, MadKillah\_46
- Track 38 : Alkhayr\_43, KingPhillip3\_44, Idergollasper\_45
- Track 39 : Firecracker\_45, Bora\_42, Corndog\_47, Catdawg\_45
- Track 40 : Zakhe101\_45
- Track 41 : Familton\_46, Blessica\_46, SchoolBus\_45, JangDynasty\_45, TelAviv\_42
- Track 42 : Winget\_46
- Track 43 : Zebo\_44
- Track 44 : Ryadel\_49
- Track 45 : Thespis\_12, Langerak\_12, Xavia\_12, Fishburne\_12, Donovan\_12, Ksquared\_12, Arib1\_12, Bhagsy\_12, CactusJack\_12, Bartholomew\_12, Atcoo\_12, Jebeks\_12, Etoile\_12, Sonah\_12, Zilizebeth\_12, Necropolis\_12, Techage\_12, Dynamo\_12, Venti\_12, Gavriela\_12, Brusacoram\_12, FirstPlacePfu\_12, KilKor\_12,

Phalm\_12, Bunnies\_12, Malithi\_12, Glaske\_12, GreaseLightnin\_12, Phineas\_12, StevieRay\_12, Kari\_12, HUHilltop\_12, Juniormint\_12, Mangethe\_12, Majeke\_12, StressBall\_12, Megiddo\_12, Polkaroo\_12, Camster\_12, Vidya\_12, Phegasus\_12, Jung\_12

- Track 46 : Bogie\_11, Shipwreck\_11, Pygmy\_11
- Track 47 : Willsammy\_12
- Track 48 : Tortellini\_11
- Track 49 : BigNuz\_11
- Track 50 : Nazo\_11
- Track 51 : Phayonce\_11
- Track 52 : ThulaThula\_11
- Track 53 : Purky\_11
- Track 54 : MooMoo\_9

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

The start number called the most often in the published annotations is 17, it was called in 195 of the 349 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila\_10, Alexphander\_10, AlpineSix\_9, ArcusAngelus\_9, Ardmore\_9, Aubs\_9, Awesomesauce\_10, Batiatus\_9, Beakin\_10, BigPhil\_10, Bipolar\_9, Blexus\_9, BlueCrab\_9, Bobi\_10, BodEinwohner17\_9, Boomer\_10, Brocalys\_9, Brookers\_10, Bubbles123\_9, Burwell21\_9, BuzzLyseyear\_10, ByChance\_9, Byougenkin\_9, CaptainTrips\_10, Cerasum\_10, Che8\_9, Chevrolet\_9, Chuckly\_9, Clifton\_9, Coco12\_10, Corium\_9, Cornucopia\_10, Crumble\_9, DLane\_9, DRBy19\_9, DaWorst\_10, DaddyRickover\_9, Dante\_9, DeadP\_9, Deb65\_9, DillTech15\_9, DirtMcgirt\_10, DoRead\_9, DocMcStuffins\_10, Donkeykong\_9, Doomphist\_9, Dorothy\_9, DosHalletts\_10, DotProduct\_9, Doug\_9, Drago\_10, Eish\_9, EleanorGeorge\_9, Emma\_9, Empress\_9, Enby\_10, Eradicator\_9, Estave1\_9, Fastidio\_9, Filuzino\_9, Firehouse51\_9, Flathead\_10, Florinda\_9, FreddyB\_9, Fruitloop\_9, GUmbe\_9, Galactic\_9, Gandalph\_9, Geralt\_9, GigiOuiOui\_9, Girafales\_10, Girr\_9, Guppsters\_9, Hades\_9, Hamulus\_9, Hegedechwinu\_10, Hlubikazi\_9, IMpilo\_9, Ihubesi\_9, Inventum\_9, IrishSherpFalk\_9, JalFarm20\_10, Jant\_9, Jarcob\_9, Jinglebell\_9, Job42\_10, JoeyJr\_9, Juice456\_10, Juniper1\_9, Karhdo\_9, Kenuha5\_9, Kersh\_9, Kimberlium\_10, KingJulian\_9, Kingsley\_10, Koella\_9, Krakatau\_10, KristaRAM\_10, Latretium\_9, Leozinho\_10, Leperchaun\_9, LilMoolah\_9, LittleShirley\_10, Llama\_9, Llij\_9, Lorde\_10, LunaBlu\_9, MadMen\_9, Madiba\_10, Mahavrat\_9, Mandlovu\_9, Maravista\_9, Marker\_10, Martik\_9, Mattes\_9, Melissauren88\_9, MilanaBonita\_10, MilleniumForce\_10, MinionDave\_10, Minnie\_9, Misha28\_10, MisterCuddles\_9, Modragons\_9, Moonbeam\_9, Mova\_10, Mozy\_10, Ms6\_9, MulchExplorer\_11, Mutaforma13\_9, NewHope4\_9, Nimbo\_9, Nitzel\_10, Nivrat\_9, NormanBulbieJr\_9, Ochi17\_9, OfUltron\_9, Ogoopogo\_12, Oksu\_10, OldBen\_9, OlympiaSaint\_9, Ovechkin\_9, OwlsT2W\_10, PHappiness\_9, PMC\_9, Phalconet\_9, Phanphagia\_9, Phasih\_9, Phatniss\_9, PhesterPotato\_9, Plumbus\_10, Polka14\_9, Pollywog\_10, Polo2Bam\_10, PopTart\_9, Priscilla\_9, QuickMath\_9, Quico\_10, Radiance\_9, RedBird\_9, Rialto\_10, RitaG\_9, Rita\_9, Rockne\_9, RockyHorror\_10, Royals2015\_9, Ruby\_9, SG4\_9, Saal\_9, Sabbb\_9, Sandalphon\_9, Sarma624\_10, Sassafras\_9, SassyB\_9, Scottish\_9, Seabastian\_9, Shauna1\_9, ShiLan\_9, ShroomBoi\_9, SiSi\_9, SimranZ1\_10, Sparkdehlily\_9, Spartacus\_9,

Spikelee\_10, Spoonbill\_9, Squirty\_10, StAnnes\_9, Stap\_10, Starcevich\_10, Strokeseat\_9, SuperGrey\_9, SwagPiggett\_9, TDanisky\_9, Taj\_9, Tchotchke\_10, TootsiePop\_10, Tootsieroll\_10, Totinger\_10, Tweety\_9, UncleRicky\_10, VRedHorse\_9, Velveteen\_10, Veteran\_9, Wachhund\_9, Wee\_9, Whatsapiecost\_9, Whouphf\_9, WillSterrel\_9, XFactor\_9, Zerg\_9,

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

- Aleri\_10, Babsiella\_11, BobaPhett\_9, Brujita\_11, Brushbloom\_11, Cabrinians\_9, Che9c\_10, CheesePuff\_9, ChickenDinner\_10, Daenerys\_9, EmiMonkey\_9, Emmaloid\_11, Fancypants\_9, Frankie\_10, Gorge\_9, Grimmer\_10, HC\_11, Harley\_9, IbOuu\_9, Island3\_11, James\_9, KingMidas\_9, LastJedi\_9, Lizziana\_9, Mantra\_9, MulchSalad\_9, Pacc40\_9, Philus\_9, PhilipPhlop\_9, Piper2020\_10, Pippy\_9, Poenanya\_9, QueenHazel\_11, Ramsey\_10, Sbash\_10, Seagreen\_10, ShowerHandel\_9, Slim\_11, Stuck\_10, Violac\_9, Vivum\_9, Xula\_10, Yorick\_9, Zizzle\_9,

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

- Aggie\_11, Alkhayr\_43, Andies\_11, Arib1\_12, Ashwin\_46, Atcoo\_12, BabeRuth\_11, Bartholomew\_12, Bhagsy\_12, BigNuz\_11, Blessica\_46, Bogie\_11, Bora\_42, Bosection6\_11, Brusacoram\_12, Bunnies\_12, Butters\_11, CactusJack\_12, Camster\_12, Carcharodon\_11, Catdawg\_45, Charlie\_11, Chewbacca\_11, Corndog\_47, Cornie\_10, Donovan\_12, Duplicity\_11, Dylan\_44, Dynamo\_12, EGunicorn\_11, Etoile\_12, Familton\_46, Firecracker\_45, FirstPlacePfu\_12, Fishburne\_12, FoulBall\_45, Fulbright\_11, Gavriela\_12, Gex\_11, Glaske\_12, GreaseLightnin\_12, HUHilltop\_12, Hanako\_11, Idergollasper\_45, Jamie19\_11, JangDynasty\_45, Jebeks\_12, Journey\_11, Jung\_12, Juniormint\_12, Kari\_12, Kevin1\_11, KilKor\_12, KingPhillip3\_44, Krili\_44, Ksquared\_12, Langerak\_12, LunaStella\_10, MadKillah\_46, Magsby\_11, Majeke\_12, Malithi\_12, Mangethe\_12, Megiddo\_12, Melville\_11, MichelleMyBell\_11, MooMoo\_9, Mori\_44, Murai\_45, Nazo\_11, Necropolis\_12, Nenae\_11, NiebruSaylor\_44, Panchino\_11, Parmesanjohn\_11, Phalm\_12, PhancyPhin\_11, Phayonce\_11, Phegasus\_12, Philonius\_11, Phineas\_12, Phloss\_11, Phrann\_11, Pipsqueaks\_11, Polkaroo\_12, Purgamenstris\_11, Purky\_11, Pygmy\_11, Raymond7\_11, Rebel\_11, Redi\_11, Renaud18\_10, Rubeelu\_11, Ryadel\_49, Schnauzer\_11, SchoolBus\_45, Schuy\_46, Scitech\_11, Shida\_45, Shipwreck\_11, ShrimpFriedEgg\_11, Shweta\_11, Silvafighter\_11, Silvy\_11, SkinnyPete\_11, Smooch\_47, Smurph\_11, Snekmaggon\_11, Sonah\_12, SpongeBob\_11, StevieRay\_12, StressBall\_12, TChen\_10, Tapioca\_11, Techage\_12, TelAviv\_42, Thespis\_12, ThetaBob\_10, ThulaThula\_11, Toron\_10, Tortellini\_11, Tortoise12\_11, Vagabond\_45, Venti\_12, Vidya\_12, Vorrrps\_44, Wildflower\_45, Willsammy\_12, Winget\_46, Wogge42\_44, Xavia\_12, Xeno\_11, Xerxes\_11, YungJamal\_48, Zakhe101\_45, Zebo\_44, Zilizebeth\_12,

### Summary by start number:

Start 17:

- Found in 253 of 390 ( 64.9% ) of genes in pham
- Manual Annotations of this start: 195 of 349
- Called 82.6% of time when present
- Phage (with cluster) where this start called: Akhila\_10 (F1), Alexphander\_10 (F1), AlpineSix\_9 (F1), ArcusAngelus\_9 (F1), Ardmore\_9 (F1), Aubs\_9 (F1), Awesomesauce\_10 (F1), Batiatus\_9 (F1), Beakin\_10 (F1), BigPhil\_10 (F1), Bipolar\_9 (F1), Blexus\_9 (F1), BlueCrab\_9 (F1), Bobi\_10 (F1), BodEinwohner17\_9 (F1),

Boomer\_10 (F1), Brocalys\_9 (F1), Brookers\_10 (F1), Bubbles123\_9 (F1), Burwell21\_9 (F1), BuzzLyseyear\_10 (F1), ByChance\_9 (F1), Byougenkin\_9 (F1), CaptainTrips\_10 (F1), Cerasum\_10 (F1), Che8\_9 (F1), Chevrolet\_9 (F1), Chuckly\_9 (F1), Clifton\_9 (F1), Coco12\_10 (F1), Corium\_9 (F1), Cornucopia\_10 (F1), Crumble\_9 (F1), DLane\_9 (F1), DRBy19\_9 (F1), DaWorst\_10 (F1), DaddyRickover\_9 (F1), Dante\_9 (F1), DeadP\_9 (F1), Deb65\_9 (F1), DillTech15\_9 (F1), DirtMcgirt\_10 (F1), DoRead\_9 (F1), DocMcStuffins\_10 (F1), Donkeykong\_9 (F1), Doomphist\_9 (F1), Dorothy\_9 (F1), DosHalletts\_10 (F1), DotProduct\_9 (F1), Doug\_9 (F1), Drago\_10 (F1), Eish\_9 (F1), EleanorGeorge\_9 (F1), Emma\_9 (F1), Empress\_9 (F1), Enby\_10 (F1), Eradicator\_9 (F1), Estave1\_9 (F1), Fastidio\_9 (F1), Filuzino\_9 (F1), Firehouse51\_9 (F1), Flathead\_10 (F1), Florinda\_9 (F1), FreddyB\_9 (F1), Fruitloop\_9 (F1), GUmbie\_9 (F1), Galactic\_9 (F1), Gandalph\_9 (F1), Geralt\_9 (F1), GigiOuiOui\_9 (F1), Girafales\_10 (F1), Girr\_9 (F1), Guppsters\_9 (F1), Hades\_9 (F1), Hamulus\_9 (F1), Hegedechwinu\_10 (F1), Hlubikazi\_9 (F1), IMpilo\_9 (F1), Ibhubesi\_9 (F1), Inventum\_9 (F1), IrishSherpFalk\_9 (F1), JalFarm20\_10 (F1), Jant\_9 (F1), Jarcob\_9 (F1), Jinglebell\_9 (F1), Job42\_10 (F1), JoeyJr\_9 (F1), Juice456\_10 (F1), Juniper1\_9 (F1), Karhdo\_9 (F1), Kenuha5\_9 (F1), Kersh\_9 (F1), Kimberlium\_10 (F1), KingJulian\_9 (F1), Kingsley\_10 (F1), Koella\_9 (F1), Krakatau\_10 (F1), KristaRAM\_10 (F1), Latretium\_9 (F1), Leozinho\_10 (F1), Leperchaun\_9 (F1), LilMoolah\_9 (F1), LittleShirley\_10 (F1), Llama\_9 (F1), Llij\_9 (F1), Lorde\_10 (F1), LunaBlu\_9 (F1), MadMen\_9 (F1), Madiba\_10 (F1), Mahavrat\_9 (F1), Mandlovu\_9 (F1), Maravista\_9 (F1), Marker\_10 (F1), Martik\_9 (F1), Mattes\_9 (F1), Melissauren88\_9 (F1), MilanaBonita\_10 (F1), MilleniumForce\_10 (F1), MinionDave\_10 (F1), Minnie\_9 (F1), Misha28\_10 (F1), MisterCuddles\_9 (F1), Modragons\_9 (F1), Moonbeam\_9 (F1), Mova\_10 (F1), Mozy\_10 (F1), Ms6\_9 (F1), MulchExplorer\_11 (F1), Mutaforma13\_9 (F1), NewHope4\_9 (F1), Nimbo\_9 (F1), Nitzel\_10 (F1), Nivrat\_9 (F1), NormanBulbieJr\_9 (F1), Ochi17\_9 (F1), OfUltron\_9 (F1), Ogopogo\_12 (F1), Oksu\_10 (F1), OldBen\_9 (F1), OlympiaSaint\_9 (F1), Ovechkin\_9 (F1), OwisT2W\_10 (F1), PHappiness\_9 (F1), PMC\_9 (F1), Phalconet\_9 (F1), Phanphagia\_9 (F1), Phasih\_9 (F1), Phatniss\_9 (F1), PhesterPhotato\_9 (F1), Plumbus\_10 (F1), Polka14\_9 (F1), Pollywog\_10 (F1), Polo2Bam\_10 (F1), PopTart\_9 (F1), Priscilla\_9 (F1), QuickMath\_9 (F1), Quico\_10 (F1), Radiance\_9 (F1), RedBird\_9 (F1), Rialto\_10 (F1), RitaG\_9 (F1), Rita\_9 (F1), Rockne\_9 (F1), RockyHorror\_10 (F1), Royals2015\_9 (F1), Ruby\_9 (F1), SG4\_9 (F1), Saal\_9 (F1), Sabbb\_9 (F1), Sandalphon\_9 (F1), Sarma624\_10 (F1), Sassafras\_9 (F1), SassyB\_9 (F1), Scottish\_9 (F1), Sebastian\_9 (F1), Shauna1\_9 (F1), ShiLan\_9 (F1), ShroomBoi\_9 (F1), SiSi\_9 (F1), SimranZ1\_10 (F1), Sparkdehlily\_9 (F1), Spartacus\_9 (F1), Spikelee\_10 (F1), Spoonbill\_9 (F1), Squirty\_10 (F3), StAnnes\_9 (F1), Stap\_10 (F1), Starcevich\_10 (F1), Strokeseat\_9 (F1), SuperGrey\_9 (F1), SwagPiggett\_9 (F1), TDanisky\_9 (F1), Taj\_9 (F1), Tchochke\_10 (F1), TootsiePop\_10 (F1), Tootsieroll\_10 (F1), Totinger\_10 (F1), Tweety\_9 (F1), UncleRicky\_10 (F1), VRedHorse\_9 (F1), Velveteen\_10 (F1), Veteran\_9 (F1), Wachhund\_9 (F1), Wee\_9 (F1), Whatsapiecost\_9 (F1), Whouxphf\_9 (F1), WillSterrel\_9 (F1), XFactor\_9 (F1), Zerg\_9 (F1),

Start 18:

- Found in 52 of 390 ( 13.3% ) of genes in pham
- Manual Annotations of this start: 47 of 349
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arib1\_12 (P1), Atcoo\_12 (P1), Bartholomew\_12 (P1), Bhagsy\_12 (P1), BigNuz\_11 (P4), Bogie\_11 (P1), Brusacoram\_12 (P1), Bunnies\_12 (P1), CactusJack\_12 (P1), Camster\_12 (P1), Donovan\_12 (P1), Dynamo\_12 (P1), Etoile\_12 (P1), FirstPlacePfu\_12 (P1), Fishburne\_12 (P1), Gavriela\_12 (P1), Glaske\_12 (P1), GreaseLightnin\_12 (P1),

HUHilltop\_12 (P1), Jebeks\_12 (P1), Jung\_12 (P1), Juniormint\_12 (P1), Kari\_12 (P1), KilKor\_12 (P1), Ksquared\_12 (P1), Langerak\_12 (P1), Majeke\_12 (P1), Malithi\_12 (P1), Mangethe\_12 (P1), Megiddo\_12 (P1), Nazo\_11 (P4), Necropolis\_12 (P1), Phalm\_12 (P1), Phayonce\_11 (P5), Phegasus\_12 (P1), Phineas\_12 (P1), Polkaroo\_12 (P1), Purky\_11 (P6), Pygmy\_11 (P1), Shipwreck\_11 (P1), Sonah\_12 (P1), StevieRay\_12 (P1), StressBall\_12 (P1), Techage\_12 (P1), Thespis\_12 (P1), ThulaThula\_11 (P5), Tortellini\_11 (P2), Venti\_12 (P1), Vidya\_12 (P1), Willsammy\_12 (P1), Xavia\_12 (P3), Zilizebeth\_12 (P1),

Start 19:

- Found in 32 of 390 ( 8.2% ) of genes in pham
- Manual Annotations of this start: 4 of 349
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Bora\_42 (O), Catdawg\_45 (O), Corndog\_47 (O), Firecracker\_45 (O),

Start 20:

- Found in 32 of 390 ( 8.2% ) of genes in pham
- Manual Annotations of this start: 1 of 349
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Zakhe101\_45 (O), Zebo\_44 (O),

Start 21:

- Found in 1 of 390 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 349
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cornie\_10 (F5),

Start 22:

- Found in 5 of 390 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 4 of 349
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LunaStella\_10 (F4), Renaud18\_10 (F4), TChen\_10 (F4), ThetaBob\_10 (F4), Toron\_10 (F6),

Start 23:

- Found in 10 of 390 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 9 of 349
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Babsiella\_11 (I1), Brujita\_11 (I1), Che9c\_10 (I2), HC\_11 (I1), Island3\_11 (I1), MooMoo\_9 (singleton), QueenHazel\_11 (I1), Sbash\_10 (I2), Stuck\_10 (I2), Xula\_10 (I1),

Start 24:

- Found in 32 of 390 ( 8.2% ) of genes in pham
- Manual Annotations of this start: 3 of 349
- Called 15.6% of time when present
- Phage (with cluster) where this start called: Alkhayr\_43 (O), Idergollasper\_45 (O), KingPhillip3\_44 (O), Ryadel\_49 (O), Winget\_46 (O),

Start 25:

- Found in 179 of 390 ( 45.9% ) of genes in pham
- Manual Annotations of this start: 65 of 349



- Called 45.3% of time when present
- Phage (with cluster) where this start called: Aggie\_11 (N), Aloeri\_10 (F1), Andies\_11 (N), BabeRuth\_11 (N), BobaPhett\_9 (F1), Bosection6\_11 (N), Brushbloom\_11 (F1), Butters\_11 (N), Cabrinians\_9 (F1), Carcharodon\_11 (N), Charlie\_11 (N), Cheesepuff\_9 (F1), Chewbacca\_11 (N), ChickenDinner\_10 (F1), Daenerys\_9 (F1), Duplicity\_11 (N), EGUunicorn\_11 (N), EmiMonkey\_9 (F1), Emmaloid\_11 (F1), Fancypants\_9 (F1), Frankie\_10 (F1), Fulbright\_11 (N), Gex\_11 (N), Gorge\_9 (F1), Grimmer\_10 (F1), Hanako\_11 (N), Harley\_9 (F1), IbOuu\_9 (F1), James\_9 (F1), Jamie19\_11 (N), Journey\_11 (N), Kevin1\_11 (N), KingMidas\_9 (F1), LastJedi\_9 (F1), Lizziana\_9 (F1), Magsby\_11 (N), Mantra\_9 (F1), Melville\_11 (N), MichelleMyBell\_11 (N), MulchSalad\_9 (F), Nенаe\_11 (N), Pacc40\_9 (F1), Panchino\_11 (N), Parmesanjohn\_11 (N), PhancyPhin\_11 (N), Philonius\_11 (N), Philus\_9 (F1), PhilipPhlop\_9 (F1), Phloss\_11 (N), Phrann\_11 (N), Piper2020\_10 (F1), Pippy\_9 (F1), Pipsqueaks\_11 (N), Poenanya\_9 (F1), Purgamenstris\_11 (N), Ramsey\_10 (F1), Raymond7\_11 (N), Rebel\_11 (N), Redi\_11 (N), Rubeelu\_11 (N), Schnauzer\_11 (N), Scitech\_11 (N), Seagreen\_10 (F1), ShowerHandel\_9 (F1), ShrimpFriedEgg\_11 (N), Shweta\_11 (N), Silvafighter\_11 (N), Silvy\_11 (N), SkinnyPete\_11 (N), Slim\_11 (F1), Smurph\_11 (N), Snekmaggedon\_11 (N), SpongeBob\_11 (N), Tapioca\_11 (N), Tortoise12\_11 (N), Violac\_9 (F1), Vivum\_9 (F1), Xeno\_11 (N), Xerxes\_11 (N), Yorick\_9 (F1), Zizzle\_9 (F1),

Start 27:

- Found in 213 of 390 ( 54.6% ) of genes in pham
- Manual Annotations of this start: 20 of 349
- Called 9.9% of time when present
- Phage (with cluster) where this start called: Ashwin\_46 (O), Blessica\_46 (O), Dylan\_44 (O), Familton\_46 (O), FoulBall\_45 (O), JangDynasty\_45 (O), Krili\_44 (O), MadKillah\_46 (O), Mori\_44 (O), Murai\_45 (O), NiebruSaylor\_44 (O), SchoolBus\_45 (O), Schuy\_46 (O), Shida\_45 (O), Smooch\_47 (O), TelAviv\_42 (O), Vagabond\_45 (O), Vorrrps\_44 (O), Wildflower\_45 (O), Wogge42\_44 (O), YungJamal\_48 (O),

### Summary by clusters:

There are 17 clusters represented in this pham: P2, F1, singleton, P1, P6, P4, F6, F, I1, P3, P5, O, N, F3, F4, I2, F5,

Info for manual annotations of cluster F1:

- Start number 17 was manually annotated 194 times for cluster F1.
- Start number 25 was manually annotated 22 times for cluster F1.

Info for manual annotations of cluster F3:

- Start number 17 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:

- Start number 22 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 21 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I1:

- Start number 23 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 23 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster N:

- Start number 25 was manually annotated 43 times for cluster N.

Info for manual annotations of cluster O:

- Start number 19 was manually annotated 4 times for cluster O.
- Start number 20 was manually annotated 1 time for cluster O.
- Start number 24 was manually annotated 3 times for cluster O.
- Start number 27 was manually annotated 20 times for cluster O.

Info for manual annotations of cluster P1:

- Start number 18 was manually annotated 40 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 18 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 18 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 18 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 18 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 18 was manually annotated 1 time for cluster P6.

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

Gene: Aggie\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Aggie\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Akhila\_10 Start: 7429, Stop: 7758, Start Num: 17

Candidate Starts for Akhila\_10:

(9, 7363), (Start: 17 @7429 has 195 MA's), (32, 7507), (34, 7531), (39, 7570), (43, 7603), (48, 7639), (53, 7669), (55, 7684),

Gene: Alexphander\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Alexphander\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Alkhayr\_43 Start: 22887, Stop: 23294, Start Num: 24

Candidate Starts for Alkhayr\_43:

(Start: 19 @22869 has 4 MA's), (Start: 20 @22875 has 1 MA's), (Start: 24 @22887 has 3 MA's), (Start: 27 @22908 has 20 MA's), (50, 23106), (61, 23280),

Gene: Aloeri\_10 Start: 6665, Stop: 6961, Start Num: 25

Candidate Starts for Aloeri\_10:

(Start: 17 @6635 has 195 MA's), (Start: 25 @6665 has 65 MA's), (Start: 27 @6680 has 20 MA's), (32, 6713), (34, 6737), (39, 6776), (43, 6809), (53, 6875),

Gene: AlpineSix\_9 Start: 6778, Stop: 7104, Start Num: 17

Candidate Starts for AlpineSix\_9:

(Start: 17 @6778 has 195 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: Andies\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Andies\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: ArcusAngelus\_9 Start: 6771, Stop: 7100, Start Num: 17

Candidate Starts for ArcusAngelus\_9:

(Start: 17 @6771 has 195 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (48, 6981), (53, 7011), (55, 7026),

Gene: Ardmore\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Ardmore\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Arib1\_12 Start: 7913, Stop: 8290, Start Num: 18

Candidate Starts for Arib1\_12:

(8, 7829), (Start: 18 @7913 has 47 MA's), (49, 8126), (54, 8168), (56, 8186),

Gene: Ashwin\_46 Start: 22906, Stop: 23292, Start Num: 27

Candidate Starts for Ashwin\_46:

(Start: 19 @22867 has 4 MA's), (Start: 20 @22873 has 1 MA's), (Start: 24 @22885 has 3 MA's), (Start: 27 @22906 has 20 MA's), (50, 23104), (61, 23278),

Gene: Atcoo\_12 Start: 7900, Stop: 8313, Start Num: 18

Candidate Starts for Atcoo\_12:

(8, 7816), (Start: 18 @7900 has 47 MA's), (49, 8113), (54, 8155), (56, 8173),

Gene: Aubs\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Aubs\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Awesomesauce\_10 Start: 6635, Stop: 6961, Start Num: 17

Candidate Starts for Awesomesauce\_10:

(Start: 17 @6635 has 195 MA's), (Start: 25 @6665 has 65 MA's), (Start: 27 @6680 has 20 MA's), (32, 6713), (34, 6737), (39, 6776), (43, 6809), (53, 6875),

Gene: BabeRuth\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for BabeRuth\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Babsiella\_11 Start: 7921, Stop: 8361, Start Num: 23

Candidate Starts for Babsiella\_11:

(4, 7591), (Start: 17 @7900 has 195 MA's), (Start: 23 @7921 has 9 MA's), (34, 8017), (44, 8095), (47, 8122), (65, 8347),

Gene: Bartholomew\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for Bartholomew\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Batiatus\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Batiatus\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Beakin\_10 Start: 6635, Stop: 6961, Start Num: 17

Candidate Starts for Beakin\_10:

(Start: 17 @6635 has 195 MA's), (Start: 27 @6680 has 20 MA's), (32, 6713), (34, 6737), (39, 6776), (43, 6809), (53, 6875),

Gene: Bhagsy\_12 Start: 7903, Stop: 8316, Start Num: 18

Candidate Starts for Bhagsy\_12:

(8, 7819), (Start: 18 @7903 has 47 MA's), (49, 8116), (54, 8158), (56, 8176),

Gene: BigNuz\_11 Start: 7647, Stop: 8021, Start Num: 18

Candidate Starts for BigNuz\_11:

(Start: 18 @7647 has 47 MA's), (49, 7857), (54, 7899), (56, 7917),

Gene: BigPhil\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for BigPhil\_10:

(Start: 17 @6631 has 195 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Bipolar\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Bipolar\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Blessica\_46 Start: 23309, Stop: 23695, Start Num: 27

Candidate Starts for Blessica\_46:

(Start: 19 @23270 has 4 MA's), (Start: 20 @23276 has 1 MA's), (Start: 24 @23288 has 3 MA's), (26, 23303), (Start: 27 @23309 has 20 MA's), (50, 23507), (61, 23681),

Gene: Blexus\_9 Start: 6795, Stop: 7121, Start Num: 17

Candidate Starts for Blexus\_9:

(Start: 17 @6795 has 195 MA's), (Start: 27 @6840 has 20 MA's), (30, 6864), (32, 6873), (34, 6897), (39, 6936), (43, 6969), (53, 7035),

Gene: BlueCrab\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for BlueCrab\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: BobaPhett\_9 Start: 6801, Stop: 7097, Start Num: 25

Candidate Starts for BobaPhett\_9:

(Start: 17 @6771 has 195 MA's), (Start: 25 @6801 has 65 MA's), (Start: 27 @6816 has 20 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (53, 7011),

Gene: Bobi\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Bobi\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: BodEinwohner17\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for BodEinwohner17\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Bogie\_11 Start: 7652, Stop: 8026, Start Num: 18

Candidate Starts for Bogie\_11:

(Start: 18 @7652 has 47 MA's), (49, 7862), (54, 7904), (56, 7922),

Gene: Boomer\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Boomer\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Bora\_42 Start: 22320, Stop: 22745, Start Num: 19

Candidate Starts for Bora\_42:

(Start: 19 @22320 has 4 MA's), (Start: 20 @22326 has 1 MA's), (Start: 24 @22338 has 3 MA's), (Start: 27 @22359 has 20 MA's), (50, 22557), (61, 22731),

Gene: Bosection6\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Bosection6\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Brocalys\_9 Start: 6768, Stop: 7094, Start Num: 17

Candidate Starts for Brocalys\_9:

(Start: 17 @6768 has 195 MA's), (Start: 25 @6798 has 65 MA's), (Start: 27 @6813 has 20 MA's), (32, 6846), (34, 6870), (39, 6909), (43, 6942), (53, 7008),

Gene: Brookers\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Brookers\_10:

(Start: 17 @6631 has 195 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Brujita\_11 Start: 7922, Stop: 8362, Start Num: 23

Candidate Starts for Brujita\_11:

(1, 7409), (2, 7415), (3, 7445), (4, 7595), (Start: 17 @7901 has 195 MA's), (Start: 23 @7922 has 9 MA's), (34, 8018), (44, 8096), (47, 8123), (65, 8348),

Gene: Brusacoram\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for Brusacoram\_12:  
(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: Brushbloom\_11 Start: 6661, Stop: 6957, Start Num: 25  
Candidate Starts for Brushbloom\_11:  
(Start: 17 @6631 has 195 MA's), (Start: 25 @6661 has 65 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Bubbles123\_9 Start: 6798, Stop: 7124, Start Num: 17  
Candidate Starts for Bubbles123\_9:  
(Start: 17 @6798 has 195 MA's), (Start: 25 @6828 has 65 MA's), (Start: 27 @6843 has 20 MA's), (32, 6876), (34, 6900), (39, 6939), (43, 6972), (53, 7038),

Gene: Bunnies\_12 Start: 7912, Stop: 8325, Start Num: 18  
Candidate Starts for Bunnies\_12:  
(8, 7828), (Start: 18 @7912 has 47 MA's), (49, 8125), (54, 8167), (56, 8185),

Gene: Burwell21\_9 Start: 6779, Stop: 7105, Start Num: 17  
Candidate Starts for Burwell21\_9:  
(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Butters\_11 Start: 6995, Stop: 7366, Start Num: 25  
Candidate Starts for Butters\_11:  
(14, 6929), (Start: 25 @6995 has 65 MA's), (32, 7058), (38, 7103), (39, 7121), (40, 7139), (42, 7148), (63, 7349), (64, 7355),

Gene: BuzzLyseyear\_10 Start: 6631, Stop: 6957, Start Num: 17  
Candidate Starts for BuzzLyseyear\_10:  
(Start: 17 @6631 has 195 MA's), (Start: 25 @6661 has 65 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: ByChance\_9 Start: 6781, Stop: 7107, Start Num: 17  
Candidate Starts for ByChance\_9:  
(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Byougenkin\_9 Start: 6769, Stop: 7098, Start Num: 17  
Candidate Starts for Byougenkin\_9:  
(Start: 17 @6769 has 195 MA's), (Start: 25 @6799 has 65 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6913), (43, 6946), (53, 7012),

Gene: Cabrinians\_9 Start: 6801, Stop: 7097, Start Num: 25  
Candidate Starts for Cabrinians\_9:  
(Start: 17 @6771 has 195 MA's), (Start: 25 @6801 has 65 MA's), (Start: 27 @6816 has 20 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (53, 7011),

Gene: CactusJack\_12 Start: 7899, Stop: 8312, Start Num: 18  
Candidate Starts for CactusJack\_12:  
(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: Camster\_12 Start: 7932, Stop: 8309, Start Num: 18  
Candidate Starts for Camster\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: CaptainTrips\_10 Start: 7429, Stop: 7758, Start Num: 17

Candidate Starts for CaptainTrips\_10:

(Start: 17 @7429 has 195 MA's), (32, 7507), (34, 7531), (39, 7570), (43, 7603), (48, 7639), (53, 7669), (55, 7684),

Gene: Carcharodon\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Carcharodon\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Catdawg\_45 Start: 22959, Stop: 23384, Start Num: 19

Candidate Starts for Catdawg\_45:

(Start: 19 @22959 has 4 MA's), (Start: 20 @22965 has 1 MA's), (Start: 24 @22977 has 3 MA's), (Start: 27 @22998 has 20 MA's), (50, 23196), (61, 23370),

Gene: Cerasum\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Cerasum\_10:

(Start: 17 @6631 has 195 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Charlie\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Charlie\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Che8\_9 Start: 6783, Stop: 7109, Start Num: 17

Candidate Starts for Che8\_9:

(Start: 17 @6783 has 195 MA's), (Start: 25 @6813 has 65 MA's), (Start: 27 @6828 has 20 MA's), (32, 6861), (34, 6885), (39, 6924), (43, 6957), (53, 7023),

Gene: Che9c\_10 Start: 7526, Stop: 7978, Start Num: 23

Candidate Starts for Che9c\_10:

(Start: 17 @7505 has 195 MA's), (Start: 23 @7526 has 9 MA's), (34, 7622), (43, 7697), (44, 7700), (47, 7727), (57, 7838), (60, 7913), (66, 7961),

Gene: Cheesepuff\_9 Start: 6811, Stop: 7107, Start Num: 25

Candidate Starts for Cheesepuff\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Chevrolet\_9 Start: 6771, Stop: 7100, Start Num: 17

Candidate Starts for Chevrolet\_9:

(Start: 17 @6771 has 195 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (48, 6981), (53, 7011), (55, 7026),

Gene: Chewbacca\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Chewbacca\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: ChickenDinner\_10 Start: 6665, Stop: 6961, Start Num: 25

Candidate Starts for ChickenDinner\_10:

(Start: 17 @6635 has 195 MA's), (Start: 25 @6665 has 65 MA's), (Start: 27 @6680 has 20 MA's), (32, 6713), (34, 6737), (39, 6776), (43, 6809), (53, 6875),

Gene: Chuckly\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Chuckly\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Clifton\_9 Start: 6767, Stop: 7093, Start Num: 17

Candidate Starts for Clifton\_9:

(Start: 17 @6767 has 195 MA's), (Start: 25 @6797 has 65 MA's), (Start: 27 @6812 has 20 MA's), (32, 6845), (34, 6869), (39, 6908), (43, 6941), (53, 7007),

Gene: Coco12\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Coco12\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Corium\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for Corium\_9:

(Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: Corndog\_47 Start: 23417, Stop: 23842, Start Num: 19

Candidate Starts for Corndog\_47:

(Start: 19 @23417 has 4 MA's), (Start: 20 @23423 has 1 MA's), (Start: 24 @23435 has 3 MA's), (Start: 27 @23456 has 20 MA's), (50, 23654), (61, 23828),

Gene: Cornie\_10 Start: 7003, Stop: 7410, Start Num: 21

Candidate Starts for Cornie\_10:

(10, 6928), (Start: 21 @7003 has 1 MA's), (33, 7087), (46, 7198), (48, 7204),

Gene: Cornucopia\_10 Start: 6631, Stop: 6960, Start Num: 17

Candidate Starts for Cornucopia\_10:

(Start: 17 @6631 has 195 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (48, 6841), (53, 6871), (55, 6886),

Gene: Crumble\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Crumble\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: DLane\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for DLane\_9:

(9, 6716), (Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: DRBy19\_9 Start: 6795, Stop: 7121, Start Num: 17

Candidate Starts for DRBy19\_9:

(Start: 17 @6795 has 195 MA's), (Start: 27 @6840 has 20 MA's), (32, 6873), (34, 6897), (39, 6936), (43, 6969), (53, 7035),



Gene: DaWorst\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for DaWorst\_10:

(Start: 17 @6633 has 195 MA's), (Start: 27 @6678 has 20 MA's), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: DaddyRickover\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for DaddyRickover\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Daenerys\_9 Start: 6809, Stop: 7105, Start Num: 25

Candidate Starts for Daenerys\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Dante\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for Dante\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: DeadP\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for DeadP\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Deb65\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Deb65\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: DillTech15\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for DillTech15\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: DirtMcgirt\_10 Start: 6634, Stop: 6960, Start Num: 17

Candidate Starts for DirtMcgirt\_10:

(Start: 17 @6634 has 195 MA's), (Start: 27 @6679 has 20 MA's), (32, 6712), (34, 6736), (39, 6775), (43, 6808), (53, 6874),

Gene: DoRead\_9 Start: 6769, Stop: 7095, Start Num: 17

Candidate Starts for DoRead\_9:

(Start: 17 @6769 has 195 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (48, 6979), (53, 7009), (55, 7024),

Gene: DocMcStuffins\_10 Start: 6635, Stop: 6961, Start Num: 17

Candidate Starts for DocMcStuffins\_10:

(Start: 17 @6635 has 195 MA's), (Start: 25 @6665 has 65 MA's), (Start: 27 @6680 has 20 MA's), (32, 6713), (34, 6737), (39, 6776), (43, 6809), (53, 6875),

Gene: Donkeykong\_9 Start: 6798, Stop: 7124, Start Num: 17

Candidate Starts for Donkeykong\_9:

(Start: 17 @6798 has 195 MA's), (Start: 27 @6843 has 20 MA's), (32, 6876), (34, 6900), (39, 6939), (43, 6972), (53, 7038),

Gene: Donovan\_12 Start: 7914, Stop: 8291, Start Num: 18

Candidate Starts for Donovan\_12:

(8, 7830), (Start: 18 @7914 has 47 MA's), (49, 8127), (54, 8169), (56, 8187),

Gene: Doomphist\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Doomphist\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Dorothy\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Dorothy\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: DosHalletts\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for DosHalletts\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: DotProduct\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for DotProduct\_9:

(Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: Doug\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Doug\_9:

(Start: 17 @6781 has 195 MA's), (Start: 27 @6826 has 20 MA's), (30, 6850), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Drago\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Drago\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Duplicity\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Duplicity\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Dylan\_44 Start: 22711, Stop: 23097, Start Num: 27

Candidate Starts for Dylan\_44:

(Start: 19 @22672 has 4 MA's), (Start: 20 @22678 has 1 MA's), (Start: 24 @22690 has 3 MA's), (Start: 27 @22711 has 20 MA's), (50, 22909), (61, 23083),

Gene: Dynamo\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for Dynamo\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: EGUunicorn\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for EGUunicorn\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Eish\_9 Start: 6769, Stop: 7095, Start Num: 17

Candidate Starts for Eish\_9:

(Start: 17 @6769 has 195 MA's), (Start: 25 @6799 has 65 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (48, 6979), (53, 7009), (55, 7024),

Gene: EleanorGeorge\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for EleanorGeorge\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: EmiMonkey\_9 Start: 6826, Stop: 7122, Start Num: 25

Candidate Starts for EmiMonkey\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (30, 6865), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Emma\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Emma\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Emmaloid\_11 Start: 6663, Stop: 6959, Start Num: 25

Candidate Starts for Emmaloid\_11:

(Start: 17 @6633 has 195 MA's), (Start: 25 @6663 has 65 MA's), (Start: 27 @6678 has 20 MA's), (30, 6702), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: Empress\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Empress\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Enby\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Enby\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Eradicator\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for Eradicator\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Estave1\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Estave1\_9:

(Start: 17 @6781 has 195 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Etoile\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for Etoile\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Familton\_46 Start: 23002, Stop: 23388, Start Num: 27

Candidate Starts for Familton\_46:

(Start: 19 @22963 has 4 MA's), (Start: 20 @22969 has 1 MA's), (Start: 24 @22981 has 3 MA's), (26, 22996), (Start: 27 @23002 has 20 MA's), (50, 23200), (61, 23374),

Gene: Fancypants\_9 Start: 6813, Stop: 7109, Start Num: 25

Candidate Starts for Fancypants\_9:

(Start: 17 @6783 has 195 MA's), (Start: 25 @6813 has 65 MA's), (Start: 27 @6828 has 20 MA's), (32, 6861), (34, 6885), (39, 6924), (43, 6957), (53, 7023), (55, 7038),

Gene: Fastidio\_9 Start: 6782, Stop: 7108, Start Num: 17

Candidate Starts for Fastidio\_9:

(Start: 17 @6782 has 195 MA's), (Start: 25 @6812 has 65 MA's), (Start: 27 @6827 has 20 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (53, 7022),

Gene: Filuzino\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for Filuzino\_9:

(Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: Firecracker\_45 Start: 22570, Stop: 22995, Start Num: 19

Candidate Starts for Firecracker\_45:

(Start: 19 @22570 has 4 MA's), (Start: 20 @22576 has 1 MA's), (Start: 24 @22588 has 3 MA's), (Start: 27 @22609 has 20 MA's), (50, 22807), (61, 22981),

Gene: Firehouse51\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Firehouse51\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: FirstPlacePfu\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for FirstPlacePfu\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Fishburne\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for Fishburne\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Flathead\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Flathead\_10:

(Start: 17 @6631 has 195 MA's), (Start: 25 @6661 has 65 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Florinda\_9 Start: 6799, Stop: 7125, Start Num: 17

Candidate Starts for Florinda\_9:

(Start: 17 @6799 has 195 MA's), (Start: 25 @6829 has 65 MA's), (Start: 27 @6844 has 20 MA's), (32, 6877), (34, 6901), (39, 6940), (43, 6973), (53, 7039),

Gene: FoulBall\_45 Start: 22996, Stop: 23382, Start Num: 27

Candidate Starts for FoulBall\_45:

(Start: 19 @22957 has 4 MA's), (Start: 20 @22963 has 1 MA's), (Start: 24 @22975 has 3 MA's), (Start: 27 @22996 has 20 MA's), (50, 23194), (61, 23368),

Gene: Frankie\_10 Start: 6855, Stop: 7151, Start Num: 25

Candidate Starts for Frankie\_10:

(Start: 17 @6825 has 195 MA's), (Start: 25 @6855 has 65 MA's), (Start: 27 @6870 has 20 MA's), (32, 6903), (34, 6927), (39, 6966), (43, 6999), (53, 7065),

Gene: FreddyB\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for FreddyB\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Fruitloop\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for Fruitloop\_9:

(Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: Fulbright\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Fulbright\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: GUmbie\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for GUmbie\_9:

(Start: 17 @6796 has 195 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Galactic\_9 Start: 6755, Stop: 7084, Start Num: 17

Candidate Starts for Galactic\_9:

(Start: 17 @6755 has 195 MA's), (32, 6833), (34, 6857), (39, 6896), (43, 6929), (48, 6965), (53, 6995), (55, 7010),

Gene: Gandalph\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for Gandalph\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Gavriela\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for Gavriela\_12:

(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: Geralt\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Geralt\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Gex\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Gex\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: GigiOuiOui\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for GigiOuiOui\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (30, 6865), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Girafales\_10 Start: 6627, Stop: 6953, Start Num: 17

Candidate Starts for Girafales\_10:

(Start: 17 @6627 has 195 MA's), (Start: 27 @6672 has 20 MA's), (32, 6705), (34, 6729), (39, 6768), (43, 6801), (53, 6867),

Gene: Girr\_9 Start: 6785, Stop: 7111, Start Num: 17

Candidate Starts for Girr\_9:

(Start: 17 @6785 has 195 MA's), (Start: 25 @6815 has 65 MA's), (Start: 27 @6830 has 20 MA's), (32, 6863), (34, 6887), (39, 6926), (43, 6959), (53, 7025),

Gene: Glaske\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for Glaske\_12:

(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: Gorge\_9 Start: 6798, Stop: 7094, Start Num: 25

Candidate Starts for Gorge\_9:

(Start: 17 @6768 has 195 MA's), (Start: 25 @6798 has 65 MA's), (Start: 27 @6813 has 20 MA's), (32, 6846), (34, 6870), (39, 6909), (43, 6942), (53, 7008),

Gene: GreaseLightnin\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for GreaseLightnin\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Grimmer\_10 Start: 7464, Stop: 7760, Start Num: 25

Candidate Starts for Grimmer\_10:

(Start: 17 @7434 has 195 MA's), (Start: 25 @7464 has 65 MA's), (Start: 27 @7479 has 20 MA's), (32, 7512), (34, 7536), (39, 7575), (43, 7608), (53, 7674),

Gene: Guppsters\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Guppsters\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: HC\_11 Start: 7921, Stop: 8361, Start Num: 23

Candidate Starts for HC\_11:

(4, 7594), (Start: 17 @7900 has 195 MA's), (Start: 23 @7921 has 9 MA's), (34, 8017), (44, 8095), (47, 8122), (65, 8347),

Gene: HUHilltop\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for HUHilltop\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Hades\_9 Start: 6782, Stop: 7108, Start Num: 17

Candidate Starts for Hades\_9:

(Start: 17 @6782 has 195 MA's), (Start: 27 @6827 has 20 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (53, 7022),

Gene: Hamulus\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for Hamulus\_9:

(Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: Hanako\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Hanako\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Harley\_9 Start: 6799, Stop: 7095, Start Num: 25

Candidate Starts for Harley\_9:

(Start: 17 @6769 has 195 MA's), (Start: 25 @6799 has 65 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (48, 6979), (53, 7009), (55, 7024),

Gene: Hegedechwinu\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Hegedechwinu\_10:

(Start: 17 @6631 has 195 MA's), (Start: 25 @6661 has 65 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Hlubikazi\_9 Start: 6769, Stop: 7095, Start Num: 17

Candidate Starts for Hlubikazi\_9:

(Start: 17 @6769 has 195 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (53, 7009),

Gene: IMpilo\_9 Start: 6769, Stop: 7098, Start Num: 17

Candidate Starts for IMpilo\_9:

(Start: 17 @6769 has 195 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (48, 6979), (53, 7009), (55, 7024),

Gene: IbOuu\_9 Start: 6808, Stop: 7104, Start Num: 25

Candidate Starts for IbOuu\_9:

(Start: 17 @6778 has 195 MA's), (Start: 25 @6808 has 65 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: Ibhubesi\_9 Start: 6769, Stop: 7095, Start Num: 17

Candidate Starts for Ibhubesi\_9:

(Start: 17 @6769 has 195 MA's), (Start: 25 @6799 has 65 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (48, 6979), (53, 7009), (55, 7024),

Gene: Idergollasper\_45 Start: 22975, Stop: 23382, Start Num: 24

Candidate Starts for Idergollasper\_45:

(Start: 19 @22957 has 4 MA's), (Start: 20 @22963 has 1 MA's), (Start: 24 @22975 has 3 MA's), (Start: 27 @22996 has 20 MA's), (50, 23194), (61, 23368),

Gene: Inventum\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Inventum\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: IrishSherpFalk\_9 Start: 6767, Stop: 7093, Start Num: 17

Candidate Starts for IrishSherpFalk\_9:

(Start: 17 @6767 has 195 MA's), (32, 6845), (34, 6869), (39, 6908), (43, 6941), (53, 7007), (55, 7022),

Gene: Island3\_11 Start: 7922, Stop: 8362, Start Num: 23

Candidate Starts for Island3\_11:

(1, 7409), (2, 7415), (3, 7445), (4, 7595), (Start: 17 @7901 has 195 MA's), (Start: 23 @7922 has 9 MA's), (34, 8018), (44, 8096), (47, 8123), (65, 8348),

Gene: JalFarm20\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for JalFarm20\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: James\_9 Start: 6801, Stop: 7097, Start Num: 25

Candidate Starts for James\_9:

(Start: 17 @6771 has 195 MA's), (Start: 25 @6801 has 65 MA's), (Start: 27 @6816 has 20 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (53, 7011),

Gene: Jamie19\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Jamie19\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: JangDynasty\_45 Start: 23091, Stop: 23477, Start Num: 27

Candidate Starts for JangDynasty\_45:

(Start: 19 @23052 has 4 MA's), (Start: 20 @23058 has 1 MA's), (Start: 24 @23070 has 3 MA's), (26, 23085), (Start: 27 @23091 has 20 MA's), (50, 23289), (61, 23463),

Gene: Jant\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Jant\_9:

(9, 6715), (Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Jacob\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for Jacob\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Jebeks\_12 Start: 7913, Stop: 8290, Start Num: 18

Candidate Starts for Jebeks\_12:

(8, 7829), (Start: 18 @7913 has 47 MA's), (49, 8126), (54, 8168), (56, 8186),

Gene: Jinglebell\_9 Start: 6778, Stop: 7104, Start Num: 17

Candidate Starts for Jinglebell\_9:

(Start: 17 @6778 has 195 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: Job42\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Job42\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: JoeyJr\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for JoeyJr\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Journey\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Journey\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),



Gene: Juice456\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for Juice456\_10:

(Start: 17 @6633 has 195 MA's), (Start: 27 @6678 has 20 MA's), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: Jung\_12 Start: 7923, Stop: 8336, Start Num: 18

Candidate Starts for Jung\_12:

(8, 7839), (Start: 18 @7923 has 47 MA's), (49, 8136), (54, 8178), (56, 8196),

Gene: Juniormint\_12 Start: 7916, Stop: 8329, Start Num: 18

Candidate Starts for Juniormint\_12:

(8, 7832), (Start: 18 @7916 has 47 MA's), (49, 8129), (54, 8171), (56, 8189),

Gene: Juniper1\_9 Start: 6771, Stop: 7097, Start Num: 17

Candidate Starts for Juniper1\_9:

(Start: 17 @6771 has 195 MA's), (Start: 27 @6816 has 20 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (53, 7011),

Gene: Karhdo\_9 Start: 6783, Stop: 7109, Start Num: 17

Candidate Starts for Karhdo\_9:

(Start: 17 @6783 has 195 MA's), (Start: 27 @6828 has 20 MA's), (32, 6861), (34, 6885), (39, 6924), (43, 6957), (53, 7023),

Gene: Kari\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for Kari\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Kenuha5\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Kenuha5\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Kersh\_9 Start: 6772, Stop: 7098, Start Num: 17

Candidate Starts for Kersh\_9:

(Start: 17 @6772 has 195 MA's), (Start: 25 @6802 has 65 MA's), (Start: 27 @6817 has 20 MA's), (32, 6850), (34, 6874), (39, 6913), (43, 6946), (53, 7012),

Gene: Kevin1\_11 Start: 6995, Stop: 7366, Start Num: 25

Candidate Starts for Kevin1\_11:

(14, 6929), (Start: 25 @6995 has 65 MA's), (32, 7058), (38, 7103), (39, 7121), (40, 7139), (42, 7148), (63, 7349), (64, 7355),

Gene: KilKor\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for KilKor\_12:

(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: Kimberlium\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for Kimberlium\_10:

(Start: 17 @6633 has 195 MA's), (Start: 27 @6678 has 20 MA's), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: KingJulian\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for KingJulian\_9:

(Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: KingMidas\_9 Start: 6809, Stop: 7105, Start Num: 25

Candidate Starts for KingMidas\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: KingPhillip3\_44 Start: 22975, Stop: 23382, Start Num: 24

Candidate Starts for KingPhillip3\_44:

(Start: 19 @22957 has 4 MA's), (Start: 20 @22963 has 1 MA's), (Start: 24 @22975 has 3 MA's), (Start: 27 @22996 has 20 MA's), (50, 23194), (61, 23368),

Gene: Kingsley\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Kingsley\_10:

(Start: 17 @6631 has 195 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Koella\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Koella\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Krakatau\_10 Start: 7433, Stop: 7762, Start Num: 17

Candidate Starts for Krakatau\_10:

(Start: 17 @7433 has 195 MA's), (32, 7511), (34, 7535), (39, 7574), (43, 7607), (48, 7643), (53, 7673), (55, 7688),

Gene: Krili\_44 Start: 22713, Stop: 23099, Start Num: 27

Candidate Starts for Krili\_44:

(Start: 19 @22674 has 4 MA's), (Start: 20 @22680 has 1 MA's), (Start: 24 @22692 has 3 MA's), (Start: 27 @22713 has 20 MA's), (50, 22911), (61, 23085),

Gene: KristaRAM\_10 Start: 7429, Stop: 7758, Start Num: 17

Candidate Starts for KristaRAM\_10:

(9, 7363), (Start: 17 @7429 has 195 MA's), (32, 7507), (34, 7531), (39, 7570), (43, 7603), (48, 7639), (53, 7669), (55, 7684),

Gene: Ksquared\_12 Start: 7912, Stop: 8325, Start Num: 18

Candidate Starts for Ksquared\_12:

(8, 7828), (Start: 18 @7912 has 47 MA's), (49, 8125), (54, 8167), (56, 8185),

Gene: Langerak\_12 Start: 7913, Stop: 8290, Start Num: 18

Candidate Starts for Langerak\_12:

(8, 7829), (Start: 18 @7913 has 47 MA's), (49, 8126), (54, 8168), (56, 8186),

Gene: LastJedi\_9 Start: 6801, Stop: 7097, Start Num: 25

Candidate Starts for LastJedi\_9:

(Start: 17 @6771 has 195 MA's), (Start: 25 @6801 has 65 MA's), (Start: 27 @6816 has 20 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (53, 7011),

Gene: Latretium\_9 Start: 6768, Stop: 7094, Start Num: 17

Candidate Starts for Latretium\_9:

(Start: 17 @6768 has 195 MA's), (Start: 25 @6798 has 65 MA's), (Start: 27 @6813 has 20 MA's), (32, 6846), (34, 6870), (39, 6909), (43, 6942), (53, 7008),

Gene: Leozinho\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Leozinho\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Leperchaun\_9 Start: 6768, Stop: 7094, Start Num: 17

Candidate Starts for Leperchaun\_9:

(Start: 17 @6768 has 195 MA's), (Start: 25 @6798 has 65 MA's), (Start: 27 @6813 has 20 MA's), (32, 6846), (34, 6870), (39, 6909), (43, 6942), (53, 7008),

Gene: LilMoolah\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for LilMoolah\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: LittleShirley\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for LittleShirley\_10:

(Start: 17 @6633 has 195 MA's), (Start: 27 @6678 has 20 MA's), (30, 6702), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: Lizziana\_9 Start: 6811, Stop: 7107, Start Num: 25

Candidate Starts for Lizziana\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Llama\_9 Start: 6778, Stop: 7104, Start Num: 17

Candidate Starts for Llama\_9:

(Start: 17 @6778 has 195 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: Llij\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for Llij\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (39, 6937), (43, 6970), (53, 7036),

Gene: Lorde\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Lorde\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: LunaBlu\_9 Start: 6755, Stop: 7084, Start Num: 17

Candidate Starts for LunaBlu\_9:

(Start: 17 @6755 has 195 MA's), (32, 6833), (34, 6857), (39, 6896), (43, 6929), (48, 6965), (53, 6995), (55, 7010),

Gene: LunaStella\_10 Start: 7232, Stop: 7546, Start Num: 22

Candidate Starts for LunaStella\_10:

(15, 7193), (Start: 22 @7232 has 4 MA's), (30, 7283), (33, 7304), (34, 7316), (43, 7391), (53, 7457), (55, 7472),

Gene: MadKillah\_46 Start: 22935, Stop: 23321, Start Num: 27

Candidate Starts for MadKillah\_46:

(Start: 19 @22896 has 4 MA's), (Start: 20 @22902 has 1 MA's), (Start: 24 @22914 has 3 MA's), (Start: 27 @22935 has 20 MA's), (50, 23133), (61, 23307),

Gene: MadMen\_9 Start: 6795, Stop: 7121, Start Num: 17

Candidate Starts for MadMen\_9:

(Start: 17 @6795 has 195 MA's), (Start: 27 @6840 has 20 MA's), (32, 6873), (34, 6897), (39, 6936), (43, 6969), (53, 7035),

Gene: Madiba\_10 Start: 6630, Stop: 6956, Start Num: 17

Candidate Starts for Madiba\_10:

(Start: 17 @6630 has 195 MA's), (Start: 27 @6675 has 20 MA's), (32, 6708), (34, 6732), (39, 6771), (43, 6804), (53, 6870),

Gene: Magsby\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Magsby\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Mahavrat\_9 Start: 6768, Stop: 7094, Start Num: 17

Candidate Starts for Mahavrat\_9:

(Start: 17 @6768 has 195 MA's), (Start: 25 @6798 has 65 MA's), (Start: 27 @6813 has 20 MA's), (32, 6846), (34, 6870), (39, 6909), (43, 6942), (53, 7008),

Gene: Majeke\_12 Start: 7913, Stop: 8290, Start Num: 18

Candidate Starts for Majeke\_12:

(8, 7829), (Start: 18 @7913 has 47 MA's), (49, 8126), (54, 8168), (56, 8186),

Gene: Malithi\_12 Start: 7935, Stop: 8348, Start Num: 18

Candidate Starts for Malithi\_12:

(8, 7851), (Start: 18 @7935 has 47 MA's), (49, 8148), (54, 8190), (56, 8208),

Gene: Mandlovu\_9 Start: 6769, Stop: 7095, Start Num: 17

Candidate Starts for Mandlovu\_9:

(Start: 17 @6769 has 195 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (53, 7009),

Gene: Mangethe\_12 Start: 7913, Stop: 8290, Start Num: 18

Candidate Starts for Mangethe\_12:

(8, 7829), (Start: 18 @7913 has 47 MA's), (49, 8126), (54, 8168), (56, 8186),

Gene: Mantra\_9 Start: 6826, Stop: 7122, Start Num: 25

Candidate Starts for Mantra\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (30, 6865), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Maravista\_9 Start: 6769, Stop: 7095, Start Num: 17

Candidate Starts for Maravista\_9:

(Start: 17 @6769 has 195 MA's), (Start: 25 @6799 has 65 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (53, 7009),

Gene: Marker\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Marker\_10:

(Start: 17 @6631 has 195 MA's), (Start: 25 @6661 has 65 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Martik\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Martik\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Mattes\_9 Start: 6771, Stop: 7097, Start Num: 17

Candidate Starts for Mattes\_9:

(Start: 17 @6771 has 195 MA's), (Start: 25 @6801 has 65 MA's), (Start: 27 @6816 has 20 MA's), (32, 6849), (34, 6873), (39, 6912), (43, 6945), (53, 7011),

Gene: Megiddo\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for Megiddo\_12:

(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: Melissauren88\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Melissauren88\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Melville\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Melville\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: MichelleMyBell\_11 Start: 7015, Stop: 7386, Start Num: 25

Candidate Starts for MichelleMyBell\_11:

(14, 6949), (Start: 25 @7015 has 65 MA's), (32, 7078), (38, 7123), (39, 7141), (42, 7168), (63, 7369), (64, 7375),

Gene: MilanaBonita\_10 Start: 7429, Stop: 7758, Start Num: 17

Candidate Starts for MilanaBonita\_10:

(9, 7363), (Start: 17 @7429 has 195 MA's), (32, 7507), (34, 7531), (39, 7570), (43, 7603), (48, 7639), (53, 7669), (55, 7684),

Gene: MilleniumForce\_10 Start: 7429, Stop: 7758, Start Num: 17

Candidate Starts for MilleniumForce\_10:

(Start: 17 @7429 has 195 MA's), (32, 7507), (34, 7531), (39, 7570), (43, 7603), (48, 7639), (53, 7669), (55, 7684),

Gene: MinionDave\_10 Start: 7429, Stop: 7758, Start Num: 17

Candidate Starts for MinionDave\_10:

(Start: 17 @7429 has 195 MA's), (32, 7507), (34, 7531), (39, 7570), (43, 7603), (48, 7639), (53, 7669), (55, 7684),

Gene: Minnie\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for Minnie\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Misha28\_10 Start: 6635, Stop: 6961, Start Num: 17

Candidate Starts for Misha28\_10:

(Start: 17 @6635 has 195 MA's), (Start: 25 @6665 has 65 MA's), (Start: 27 @6680 has 20 MA's), (32, 6713), (34, 6737), (39, 6776), (43, 6809), (53, 6875),

Gene: MisterCuddles\_9 Start: 6785, Stop: 7111, Start Num: 17

Candidate Starts for MisterCuddles\_9:

(Start: 17 @6785 has 195 MA's), (Start: 25 @6815 has 65 MA's), (Start: 27 @6830 has 20 MA's), (32, 6863), (34, 6887), (39, 6926), (43, 6959), (53, 7025),

Gene: Modragons\_9 Start: 6778, Stop: 7104, Start Num: 17

Candidate Starts for Modragons\_9:

(Start: 17 @6778 has 195 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: MooMoo\_9 Start: 6202, Stop: 6660, Start Num: 23

Candidate Starts for MooMoo\_9:

(Start: 23 @6202 has 9 MA's), (34, 6298), (39, 6340), (44, 6376), (47, 6403), (58, 6544), (59, 6571), (60, 6589),

Gene: Moonbeam\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Moonbeam\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (30, 6850), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Mori\_44 Start: 22584, Stop: 22970, Start Num: 27

Candidate Starts for Mori\_44:

(Start: 19 @22545 has 4 MA's), (Start: 20 @22551 has 1 MA's), (Start: 24 @22563 has 3 MA's), (Start: 27 @22584 has 20 MA's), (50, 22782), (61, 22956),

Gene: Mova\_10 Start: 6634, Stop: 6960, Start Num: 17

Candidate Starts for Mova\_10:

(Start: 17 @6634 has 195 MA's), (Start: 27 @6679 has 20 MA's), (30, 6703), (32, 6712), (34, 6736), (39, 6775), (43, 6808), (53, 6874),

Gene: Mozy\_10 Start: 6629, Stop: 6958, Start Num: 17

Candidate Starts for Mozy\_10:

(Start: 17 @6629 has 195 MA's), (32, 6707), (34, 6731), (39, 6770), (41, 6794), (43, 6803), (48, 6839), (53, 6869), (55, 6884),

Gene: Ms6\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Ms6\_9:

(9, 6715), (Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: MulchExplorer\_11 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for MulchExplorer\_11:

(Start: 17 @6633 has 195 MA's), (Start: 27 @6678 has 20 MA's), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: MulchSalad\_9 Start: 6812, Stop: 7108, Start Num: 25

Candidate Starts for MulchSalad\_9:

(Start: 17 @6782 has 195 MA's), (Start: 25 @6812 has 65 MA's), (Start: 27 @6827 has 20 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (53, 7022),

Gene: Murai\_45 Start: 22774, Stop: 23160, Start Num: 27

Candidate Starts for Murai\_45:

(Start: 19 @22735 has 4 MA's), (Start: 20 @22741 has 1 MA's), (Start: 24 @22753 has 3 MA's), (Start: 27 @22774 has 20 MA's), (50, 22972), (61, 23146),

Gene: Mutaforma13\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Mutaforma13\_9:

(Start: 17 @6779 has 195 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019), (55, 7034),

Gene: Nazo\_11 Start: 7647, Stop: 8021, Start Num: 18

Candidate Starts for Nazo\_11:

(Start: 18 @7647 has 47 MA's), (Start: 25 @7671 has 65 MA's), (49, 7857), (54, 7899), (56, 7917),

Gene: Necropolis\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for Necropolis\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Nenae\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Nenae\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374),

Gene: NewHope4\_9 Start: 6755, Stop: 7084, Start Num: 17

Candidate Starts for NewHope4\_9:

(Start: 17 @6755 has 195 MA's), (32, 6833), (34, 6857), (39, 6896), (43, 6929), (48, 6965), (53, 6995), (55, 7010),

Gene: NiebruSaylor\_44 Start: 22585, Stop: 22971, Start Num: 27

Candidate Starts for NiebruSaylor\_44:

(Start: 19 @22546 has 4 MA's), (Start: 20 @22552 has 1 MA's), (Start: 24 @22564 has 3 MA's), (Start: 27 @22585 has 20 MA's), (50, 22783), (61, 22957),

Gene: Nimbo\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Nimbo\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Nitzel\_10 Start: 7432, Stop: 7758, Start Num: 17

Candidate Starts for Nitzel\_10:

(Start: 17 @7432 has 195 MA's), (Start: 25 @7462 has 65 MA's), (Start: 27 @7477 has 20 MA's), (32, 7510), (34, 7534), (39, 7573), (43, 7606), (53, 7672),

Gene: Nivrat\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for Nivrat\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: NormanBulbieJr\_9 Start: 6767, Stop: 7093, Start Num: 17

Candidate Starts for NormanBulbieJr\_9:

(Start: 17 @6767 has 195 MA's), (Start: 25 @6797 has 65 MA's), (Start: 27 @6812 has 20 MA's), (32, 6845), (34, 6869), (39, 6908), (43, 6941), (53, 7007),

Gene: Ochi17\_9 Start: 6778, Stop: 7104, Start Num: 17

Candidate Starts for Ochi17\_9:

(Start: 17 @6778 has 195 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: OfUltron\_9 Start: 6778, Stop: 7104, Start Num: 17

Candidate Starts for OfUltron\_9:

(Start: 17 @6778 has 195 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: Ogopogo\_12 Start: 7034, Stop: 7360, Start Num: 17

Candidate Starts for Ogopogo\_12:

(Start: 17 @7034 has 195 MA's), (Start: 25 @7064 has 65 MA's), (Start: 27 @7079 has 20 MA's), (32, 7112), (34, 7136), (39, 7175), (43, 7208), (53, 7274),

Gene: Oksu\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for Oksu\_10:

(Start: 17 @6633 has 195 MA's), (Start: 27 @6678 has 20 MA's), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: OldBen\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for OldBen\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: OlympiaSaint\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for OlympiaSaint\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Ovechkin\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Ovechkin\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: OwlsT2W\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for OwlsT2W\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: PHappiness\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for PHappiness\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: PMC\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for PMC\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (39, 6937), (43, 6970), (53, 7036),



Gene: Pacc40\_9 Start: 6809, Stop: 7105, Start Num: 25

Candidate Starts for Pacc40\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Panchino\_11 Start: 6996, Stop: 7367, Start Num: 25

Candidate Starts for Panchino\_11:

(6, 6828), (13, 6927), (16, 6948), (Start: 25 @6996 has 65 MA's), (32, 7059), (38, 7104), (39, 7122), (42, 7149), (49, 7182), (60, 7317), (63, 7350), (64, 7356),

Gene: Parmesanjohn\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Parmesanjohn\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Phalconet\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Phalconet\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Phalm\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for Phalm\_12:

(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: PhancyPhin\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for PhancyPhin\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Phanphagia\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Phanphagia\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Phasih\_9 Start: 6795, Stop: 7121, Start Num: 17

Candidate Starts for Phasih\_9:

(Start: 17 @6795 has 195 MA's), (Start: 25 @6825 has 65 MA's), (Start: 27 @6840 has 20 MA's), (32, 6873), (34, 6897), (39, 6936), (43, 6969), (53, 7035), (55, 7050),

Gene: Phatniss\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Phatniss\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (39, 6920), (43, 6953), (53, 7019),

Gene: Phayonce\_11 Start: 7601, Stop: 7975, Start Num: 18

Candidate Starts for Phayonce\_11:

(Start: 18 @7601 has 47 MA's), (28, 7649), (49, 7811), (51, 7826), (54, 7853),

Gene: Phegasus\_12 Start: 7913, Stop: 8290, Start Num: 18

Candidate Starts for Phegasus\_12:

(8, 7829), (Start: 18 @7913 has 47 MA's), (49, 8126), (54, 8168), (56, 8186),

Gene: PhesterPhotato\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for PhesterPhotato\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Philonius\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Philonius\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Philus\_9 Start: 6810, Stop: 7106, Start Num: 25

Candidate Starts for Philus\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Phineas\_12 Start: 7920, Stop: 8297, Start Num: 18

Candidate Starts for Phineas\_12:

(8, 7836), (Start: 18 @7920 has 47 MA's), (49, 8133), (54, 8175), (56, 8193),

Gene: PhlipPhlop\_9 Start: 6826, Stop: 7122, Start Num: 25

Candidate Starts for PhlipPhlop\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (30, 6865), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Phloss\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Phloss\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Phrann\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Phrann\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Piper2020\_10 Start: 6664, Stop: 6960, Start Num: 25

Candidate Starts for Piper2020\_10:

(Start: 17 @6634 has 195 MA's), (Start: 25 @6664 has 65 MA's), (Start: 27 @6679 has 20 MA's), (32, 6712), (34, 6736), (39, 6775), (43, 6808), (53, 6874),

Gene: Pippy\_9 Start: 6797, Stop: 7093, Start Num: 25

Candidate Starts for Pippy\_9:

(Start: 17 @6767 has 195 MA's), (Start: 25 @6797 has 65 MA's), (Start: 27 @6812 has 20 MA's), (32, 6845), (34, 6869), (39, 6908), (43, 6941), (53, 7007),

Gene: Pipsqueaks\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Pipsqueaks\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Plumbus\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for Plumbus\_10:

(Start: 17 @6633 has 195 MA's), (Start: 27 @6678 has 20 MA's), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: Poenanya\_9 Start: 6809, Stop: 7105, Start Num: 25

Candidate Starts for Poenanya\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Polka14\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for Polka14\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Polkaroo\_12 Start: 7912, Stop: 8325, Start Num: 18

Candidate Starts for Polkaroo\_12:

(8, 7828), (Start: 18 @7912 has 47 MA's), (49, 8125), (54, 8167), (56, 8185),

Gene: Pollywog\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Pollywog\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (30, 6701), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Polo2Bam\_10 Start: 6755, Stop: 7084, Start Num: 17

Candidate Starts for Polo2Bam\_10:

(Start: 17 @6755 has 195 MA's), (32, 6833), (34, 6857), (39, 6896), (43, 6929), (48, 6965), (53, 6995), (55, 7010),

Gene: PopTart\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for PopTart\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Priscilla\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for Priscilla\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Purgamenstris\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Purgamenstris\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374),

Gene: Purky\_11 Start: 7613, Stop: 7984, Start Num: 18

Candidate Starts for Purky\_11:

(Start: 18 @7613 has 47 MA's), (Start: 25 @7634 has 65 MA's), (29, 7664), (31, 7688), (49, 7820), (54, 7862), (56, 7880), (62, 7979),

Gene: Pygmy\_11 Start: 7652, Stop: 8026, Start Num: 18

Candidate Starts for Pygmy\_11:

(Start: 18 @7652 has 47 MA's), (49, 7862), (54, 7904), (56, 7922),

Gene: QueenHazel\_11 Start: 7927, Stop: 8367, Start Num: 23

Candidate Starts for QueenHazel\_11:

(4, 7597), (5, 7645), (Start: 17 @7906 has 195 MA's), (Start: 23 @7927 has 9 MA's), (34, 8023), (44, 8101), (47, 8128), (65, 8353),

Gene: QuickMath\_9 Start: 6782, Stop: 7111, Start Num: 17

Candidate Starts for QuickMath\_9:

(9, 6716), (Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: Quico\_10 Start: 6627, Stop: 6953, Start Num: 17

Candidate Starts for Quico\_10:

(Start: 17 @6627 has 195 MA's), (Start: 27 @6672 has 20 MA's), (32, 6705), (34, 6729), (39, 6768), (43, 6801), (53, 6867),

Gene: Radiance\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Radiance\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Ramsey\_10 Start: 6661, Stop: 6957, Start Num: 25

Candidate Starts for Ramsey\_10:

(Start: 17 @6631 has 195 MA's), (Start: 25 @6661 has 65 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Raymond7\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Raymond7\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Rebel\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Rebel\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: RedBird\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for RedBird\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Redi\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Redi\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Renaud18\_10 Start: 7109, Stop: 7423, Start Num: 22

Candidate Starts for Renaud18\_10:

(15, 7070), (Start: 22 @7109 has 4 MA's), (33, 7181), (34, 7193), (36, 7205), (37, 7208), (43, 7268), (53, 7334),

Gene: Rialto\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for Rialto\_10:

(Start: 17 @6633 has 195 MA's), (Start: 25 @6663 has 65 MA's), (Start: 27 @6678 has 20 MA's), (30, 6702), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: Rita\_9 Start: 6782, Stop: 7108, Start Num: 17

Candidate Starts for Rita\_9:

(Start: 17 @6782 has 195 MA's), (32, 6860), (34, 6884), (39, 6923), (43, 6956), (48, 6992), (53, 7022), (55, 7037),

Gene: RitaG\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for RitaG\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Rockne\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for Rockne\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (39, 6937), (43, 6970), (53, 7036),

Gene: RockyHorror\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for RockyHorror\_10:

(Start: 17 @6631 has 195 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Royals2015\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Royals2015\_9:

(12, 6736), (Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Rubeelu\_11 Start: 6995, Stop: 7366, Start Num: 25

Candidate Starts for Rubeelu\_11:

(14, 6929), (Start: 25 @6995 has 65 MA's), (32, 7058), (38, 7103), (39, 7121), (40, 7139), (42, 7148), (63, 7349), (64, 7355),

Gene: Ruby\_9 Start: 6785, Stop: 7111, Start Num: 17

Candidate Starts for Ruby\_9:

(Start: 17 @6785 has 195 MA's), (Start: 25 @6815 has 65 MA's), (Start: 27 @6830 has 20 MA's), (32, 6863), (34, 6887), (39, 6926), (43, 6959), (53, 7025),

Gene: Ryadel\_49 Start: 24037, Stop: 24444, Start Num: 24

Candidate Starts for Ryadel\_49:

(Start: 19 @24019 has 4 MA's), (Start: 20 @24025 has 1 MA's), (Start: 24 @24037 has 3 MA's), (Start: 27 @24058 has 20 MA's), (50, 24256), (60, 24406), (61, 24430),

Gene: SG4\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for SG4\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Saal\_9 Start: 6768, Stop: 7094, Start Num: 17

Candidate Starts for Saal\_9:

(Start: 17 @6768 has 195 MA's), (Start: 25 @6798 has 65 MA's), (Start: 27 @6813 has 20 MA's), (32, 6846), (34, 6870), (39, 6909), (43, 6942), (53, 7008),

Gene: Sabbb\_9 Start: 6783, Stop: 7109, Start Num: 17

Candidate Starts for Sabbb\_9:

(Start: 17 @6783 has 195 MA's), (Start: 27 @6828 has 20 MA's), (32, 6861), (34, 6885), (39, 6924), (43, 6957), (53, 7023),

Gene: Sandalphon\_9 Start: 6796, Stop: 7122, Start Num: 17

Candidate Starts for Sandalphon\_9:

(Start: 17 @6796 has 195 MA's), (Start: 25 @6826 has 65 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (34, 6898), (39, 6937), (43, 6970), (53, 7036),

Gene: Sarma624\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Sarma624\_10:

(Start: 17 @6631 has 195 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Sassafras\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Sassafras\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: SassyB\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for SassyB\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Sbash\_10 Start: 7504, Stop: 7950, Start Num: 23

Candidate Starts for Sbash\_10:

(Start: 17 @7483 has 195 MA's), (Start: 23 @7504 has 9 MA's), (34, 7600), (35, 7603), (43, 7675), (44, 7678), (47, 7705), (57, 7807), (60, 7882),

Gene: Schnauzer\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Schnauzer\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: SchoolBus\_45 Start: 22999, Stop: 23385, Start Num: 27

Candidate Starts for SchoolBus\_45:

(Start: 19 @22960 has 4 MA's), (Start: 20 @22966 has 1 MA's), (Start: 24 @22978 has 3 MA's), (26, 22993), (Start: 27 @22999 has 20 MA's), (50, 23197), (61, 23371),

Gene: Schuy\_46 Start: 22932, Stop: 23318, Start Num: 27

Candidate Starts for Schuy\_46:

(Start: 19 @22893 has 4 MA's), (Start: 20 @22899 has 1 MA's), (Start: 24 @22911 has 3 MA's), (Start: 27 @22932 has 20 MA's), (50, 23130), (61, 23304),

Gene: Scitech\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Scitech\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Scottish\_9 Start: 6779, Stop: 7105, Start Num: 17

Candidate Starts for Scottish\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: Seabastian\_9 Start: 6778, Stop: 7104, Start Num: 17

Candidate Starts for Seabastian\_9:

(Start: 17 @6778 has 195 MA's), (Start: 27 @6823 has 20 MA's), (32, 6856), (34, 6880), (39, 6919), (43, 6952), (53, 7018),

Gene: Seagreen\_10 Start: 6662, Stop: 6958, Start Num: 25

Candidate Starts for Seagreen\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Shauna1\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Shauna1\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: ShiLan\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for ShiLan\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Shida\_45 Start: 22839, Stop: 23225, Start Num: 27

Candidate Starts for Shida\_45:

(Start: 19 @22800 has 4 MA's), (Start: 20 @22806 has 1 MA's), (Start: 24 @22818 has 3 MA's), (Start: 27 @22839 has 20 MA's), (50, 23037), (61, 23211),

Gene: Shipwreck\_11 Start: 7630, Stop: 8004, Start Num: 18

Candidate Starts for Shipwreck\_11:

(Start: 18 @7630 has 47 MA's), (49, 7840), (54, 7882), (56, 7900),

Gene: ShowerHandel\_9 Start: 6811, Stop: 7107, Start Num: 25

Candidate Starts for ShowerHandel\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: ShrimpFriedEgg\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for ShrimpFriedEgg\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: ShroomBoi\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for ShroomBoi\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Shweta\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Shweta\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: SiSi\_9 Start: 6766, Stop: 7095, Start Num: 17

Candidate Starts for SiSi\_9:

(9, 6700), (Start: 17 @6766 has 195 MA's), (32, 6844), (34, 6868), (39, 6907), (43, 6940), (48, 6976), (53, 7006), (55, 7021),

Gene: Silvafighter\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Silvafighter\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Silvy\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Silvy\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: SimranZ1\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for SimranZ1\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: SkinnyPete\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for SkinnyPete\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Slim\_11 Start: 6663, Stop: 6959, Start Num: 25

Candidate Starts for Slim\_11:

(Start: 17 @6633 has 195 MA's), (Start: 25 @6663 has 65 MA's), (Start: 27 @6678 has 20 MA's), (30, 6702), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: Smooch\_47 Start: 24127, Stop: 24513, Start Num: 27

Candidate Starts for Smooch\_47:

(Start: 19 @24088 has 4 MA's), (Start: 20 @24094 has 1 MA's), (Start: 24 @24106 has 3 MA's), (Start: 27 @24127 has 20 MA's), (50, 24325), (61, 24499),

Gene: Smurph\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Smurph\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Snekmaggedon\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for Snekmaggedon\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Sonah\_12 Start: 7915, Stop: 8292, Start Num: 18

Candidate Starts for Sonah\_12:

(8, 7831), (Start: 18 @7915 has 47 MA's), (49, 8128), (54, 8170), (56, 8188),

Gene: Sparkdehlily\_9 Start: 6795, Stop: 7121, Start Num: 17

Candidate Starts for Sparkdehlily\_9:

(Start: 17 @6795 has 195 MA's), (Start: 27 @6840 has 20 MA's), (32, 6873), (34, 6897), (39, 6936), (43, 6969), (53, 7035),

Gene: Spartacus\_9 Start: 6767, Stop: 7093, Start Num: 17

Candidate Starts for Spartacus\_9:

(Start: 17 @6767 has 195 MA's), (32, 6845), (34, 6869), (39, 6908), (43, 6941), (53, 7007), (55, 7022),

Gene: Spikelee\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Spikelee\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),



Gene: SpongeBob\_11 Start: 7020, Stop: 7391, Start Num: 25

Candidate Starts for SpongeBob\_11:

(6, 6852), (13, 6951), (16, 6972), (Start: 25 @7020 has 65 MA's), (32, 7083), (38, 7128), (39, 7146), (42, 7173), (49, 7206), (60, 7341), (63, 7374), (64, 7380),

Gene: Spoonbill\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for Spoonbill\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Squirty\_10 Start: 6630, Stop: 6956, Start Num: 17

Candidate Starts for Squirty\_10:

(Start: 17 @6630 has 195 MA's), (Start: 25 @6660 has 65 MA's), (Start: 27 @6675 has 20 MA's), (32, 6708), (34, 6732), (39, 6771), (43, 6804), (53, 6870),

Gene: StAnnes\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for StAnnes\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Stap\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Stap\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Starcevich\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Starcevich\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (30, 6701), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: StevieRay\_12 Start: 7923, Stop: 8300, Start Num: 18

Candidate Starts for StevieRay\_12:

(8, 7839), (Start: 18 @7923 has 47 MA's), (49, 8136), (54, 8178), (56, 8196),

Gene: StressBall\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for StressBall\_12:

(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: Strokeseat\_9 Start: 6769, Stop: 7095, Start Num: 17

Candidate Starts for Strokeseat\_9:

(Start: 17 @6769 has 195 MA's), (Start: 27 @6814 has 20 MA's), (32, 6847), (34, 6871), (39, 6910), (43, 6943), (53, 7009),

Gene: Stuck\_10 Start: 7516, Stop: 7968, Start Num: 23

Candidate Starts for Stuck\_10:

(Start: 17 @7495 has 195 MA's), (Start: 23 @7516 has 9 MA's), (34, 7612), (43, 7687), (44, 7690), (47, 7717), (57, 7828), (60, 7903), (66, 7951),

Gene: SuperGrey\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for SuperGrey\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: SwagPigglett\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for SwagPigglett\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: TChen\_10 Start: 7232, Stop: 7546, Start Num: 22

Candidate Starts for TChen\_10:

(15, 7193), (Start: 22 @7232 has 4 MA's), (30, 7283), (33, 7304), (34, 7316), (43, 7391), (53, 7457), (55, 7472),

Gene: TDanisky\_9 Start: 6795, Stop: 7121, Start Num: 17

Candidate Starts for TDanisky\_9:

(Start: 17 @6795 has 195 MA's), (Start: 27 @6840 has 20 MA's), (32, 6873), (34, 6897), (39, 6936), (43, 6969), (53, 7035),

Gene: Taj\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Taj\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Tapioca\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Tapioca\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Tchotchke\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Tchotchke\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Techage\_12 Start: 7916, Stop: 8293, Start Num: 18

Candidate Starts for Techage\_12:

(8, 7832), (Start: 18 @7916 has 47 MA's), (49, 8129), (54, 8171), (56, 8189),

Gene: TelAviv\_42 Start: 22993, Stop: 23379, Start Num: 27

Candidate Starts for TelAviv\_42:

(Start: 19 @22954 has 4 MA's), (Start: 20 @22960 has 1 MA's), (Start: 24 @22972 has 3 MA's), (26, 22987), (Start: 27 @22993 has 20 MA's), (50, 23191), (61, 23365),

Gene: Thespis\_12 Start: 7899, Stop: 8312, Start Num: 18

Candidate Starts for Thespis\_12:

(8, 7815), (Start: 18 @7899 has 47 MA's), (49, 8112), (54, 8154), (56, 8172),

Gene: ThetaBob\_10 Start: 7112, Stop: 7426, Start Num: 22

Candidate Starts for ThetaBob\_10:

(15, 7073), (Start: 22 @7112 has 4 MA's), (33, 7184), (34, 7196), (36, 7208), (37, 7211), (43, 7271), (53, 7337),

Gene: ThulaThula\_11 Start: 7607, Stop: 7981, Start Num: 18

Candidate Starts for ThulaThula\_11:

(Start: 18 @7607 has 47 MA's), (28, 7655), (51, 7832), (54, 7859),

Gene: TootsiePop\_10 Start: 6635, Stop: 6961, Start Num: 17

Candidate Starts for TootsiePop\_10:

(Start: 17 @6635 has 195 MA's), (Start: 25 @6665 has 65 MA's), (Start: 27 @6680 has 20 MA's), (32, 6713), (34, 6737), (39, 6776), (43, 6809), (53, 6875),

Gene: Tootsieroll\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for Tootsieroll\_10:

(Start: 17 @6632 has 195 MA's), (Start: 25 @6662 has 65 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: Toron\_10 Start: 7232, Stop: 7546, Start Num: 22

Candidate Starts for Toron\_10:

(15, 7193), (Start: 22 @7232 has 4 MA's), (33, 7304), (34, 7316), (37, 7331), (43, 7391), (53, 7457), (55, 7472),

Gene: Tortellini\_11 Start: 7594, Stop: 7998, Start Num: 18

Candidate Starts for Tortellini\_11:

(Start: 18 @7594 has 47 MA's), (Start: 25 @7612 has 65 MA's), (31, 7666), (49, 7798), (54, 7840), (56, 7858),

Gene: Tortoise12\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Tortoise12\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Totinger\_10 Start: 6633, Stop: 6959, Start Num: 17

Candidate Starts for Totinger\_10:

(Start: 17 @6633 has 195 MA's), (Start: 25 @6663 has 65 MA's), (Start: 27 @6678 has 20 MA's), (30, 6702), (32, 6711), (34, 6735), (39, 6774), (43, 6807), (53, 6873),

Gene: Tweety\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for Tweety\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: UncleRicky\_10 Start: 6632, Stop: 6958, Start Num: 17

Candidate Starts for UncleRicky\_10:

(Start: 17 @6632 has 195 MA's), (Start: 27 @6677 has 20 MA's), (32, 6710), (34, 6734), (39, 6773), (43, 6806), (53, 6872),

Gene: VRedHorse\_9 Start: 6781, Stop: 7107, Start Num: 17

Candidate Starts for VRedHorse\_9:

(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (Start: 27 @6826 has 20 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (53, 7021),

Gene: Vagabond\_45 Start: 22826, Stop: 23212, Start Num: 27

Candidate Starts for Vagabond\_45:

(Start: 19 @22787 has 4 MA's), (Start: 20 @22793 has 1 MA's), (Start: 24 @22805 has 3 MA's), (Start: 27 @22826 has 20 MA's), (50, 23024), (61, 23198),

Gene: Velveteen\_10 Start: 6631, Stop: 6957, Start Num: 17

Candidate Starts for Velveteen\_10:

(Start: 17 @6631 has 195 MA's), (Start: 27 @6676 has 20 MA's), (32, 6709), (34, 6733), (39, 6772), (43, 6805), (53, 6871),

Gene: Venti\_12 Start: 7932, Stop: 8309, Start Num: 18  
Candidate Starts for Venti\_12:  
(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Veteran\_9 Start: 6796, Stop: 7122, Start Num: 17  
Candidate Starts for Veteran\_9:  
(Start: 17 @6796 has 195 MA's), (Start: 27 @6841 has 20 MA's), (32, 6874), (34, 6898), (39, 6937),  
(43, 6970), (53, 7036),

Gene: Vidya\_12 Start: 7932, Stop: 8309, Start Num: 18  
Candidate Starts for Vidya\_12:  
(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Violac\_9 Start: 6812, Stop: 7108, Start Num: 25  
Candidate Starts for Violac\_9:  
(Start: 17 @6782 has 195 MA's), (Start: 25 @6812 has 65 MA's), (Start: 27 @6827 has 20 MA's), (32,  
6860), (34, 6884), (39, 6923), (43, 6956), (53, 7022),

Gene: Vivum\_9 Start: 6810, Stop: 7106, Start Num: 25  
Candidate Starts for Vivum\_9:  
(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32,  
6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Vorrps\_44 Start: 22585, Stop: 22971, Start Num: 27  
Candidate Starts for Vorrps\_44:  
(Start: 19 @22546 has 4 MA's), (Start: 20 @22552 has 1 MA's), (Start: 24 @22564 has 3 MA's), (Start:  
27 @22585 has 20 MA's), (50, 22783), (61, 22957),

Gene: Wachhund\_9 Start: 6772, Stop: 7098, Start Num: 17  
Candidate Starts for Wachhund\_9:  
(Start: 17 @6772 has 195 MA's), (Start: 25 @6802 has 65 MA's), (Start: 27 @6817 has 20 MA's), (32,  
6850), (34, 6874), (39, 6913), (43, 6946), (53, 7012),

Gene: Wee\_9 Start: 6781, Stop: 7110, Start Num: 17  
Candidate Starts for Wee\_9:  
(Start: 17 @6781 has 195 MA's), (Start: 25 @6811 has 65 MA's), (32, 6859), (34, 6883), (39, 6922),  
(43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Whatsapiecost\_9 Start: 6781, Stop: 7110, Start Num: 17  
Candidate Starts for Whatsapiecost\_9:  
(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021),  
(55, 7036),

Gene: Whouxphf\_9 Start: 6771, Stop: 7097, Start Num: 17  
Candidate Starts for Whouxphf\_9:  
(Start: 17 @6771 has 195 MA's), (Start: 25 @6801 has 65 MA's), (Start: 27 @6816 has 20 MA's), (32,  
6849), (34, 6873), (39, 6912), (43, 6945), (53, 7011),

Gene: Wildflower\_45 Start: 22571, Stop: 22957, Start Num: 27  
Candidate Starts for Wildflower\_45:  
(Start: 19 @22532 has 4 MA's), (Start: 20 @22538 has 1 MA's), (Start: 24 @22550 has 3 MA's), (Start:  
27 @22571 has 20 MA's), (50, 22769), (61, 22943),

Gene: WillSterrel\_9 Start: 6767, Stop: 7093, Start Num: 17

Candidate Starts for WillSterrel\_9:

(Start: 17 @6767 has 195 MA's), (32, 6845), (34, 6869), (39, 6908), (43, 6941), (53, 7007), (55, 7022),

Gene: Willsammy\_12 Start: 7902, Stop: 8315, Start Num: 18

Candidate Starts for Willsammy\_12:

(8, 7818), (Start: 18 @7902 has 47 MA's), (49, 8115), (54, 8157), (56, 8175),

Gene: Winget\_46 Start: 23244, Stop: 23651, Start Num: 24

Candidate Starts for Winget\_46:

(Start: 19 @23226 has 4 MA's), (Start: 20 @23232 has 1 MA's), (Start: 24 @23244 has 3 MA's), (26, 23259), (Start: 27 @23265 has 20 MA's), (50, 23463), (61, 23637),

Gene: Wogge42\_44 Start: 22904, Stop: 23290, Start Num: 27

Candidate Starts for Wogge42\_44:

(Start: 19 @22865 has 4 MA's), (Start: 20 @22871 has 1 MA's), (Start: 24 @22883 has 3 MA's), (Start: 27 @22904 has 20 MA's), (50, 23102), (61, 23276),

Gene: XFactor\_9 Start: 6781, Stop: 7110, Start Num: 17

Candidate Starts for XFactor\_9:

(Start: 17 @6781 has 195 MA's), (32, 6859), (34, 6883), (39, 6922), (43, 6955), (48, 6991), (53, 7021), (55, 7036),

Gene: Xavia\_12 Start: 7936, Stop: 8313, Start Num: 18

Candidate Starts for Xavia\_12:

(8, 7852), (Start: 18 @7936 has 47 MA's), (49, 8149), (54, 8191), (56, 8209),

Gene: Xeno\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Xeno\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Xerxes\_11 Start: 6975, Stop: 7346, Start Num: 25

Candidate Starts for Xerxes\_11:

(7, 6867), (11, 6894), (13, 6909), (Start: 25 @6975 has 65 MA's), (38, 7083), (39, 7101), (42, 7128), (52, 7188), (60, 7296), (63, 7329),

Gene: Xula\_10 Start: 7556, Stop: 7996, Start Num: 23

Candidate Starts for Xula\_10:

(4, 7226), (5, 7274), (Start: 17 @7535 has 195 MA's), (Start: 23 @7556 has 9 MA's), (34, 7652), (44, 7730), (45, 7733), (47, 7757), (65, 7982),

Gene: Yorick\_9 Start: 6809, Stop: 7105, Start Num: 25

Candidate Starts for Yorick\_9:

(Start: 17 @6779 has 195 MA's), (Start: 25 @6809 has 65 MA's), (Start: 27 @6824 has 20 MA's), (32, 6857), (34, 6881), (39, 6920), (43, 6953), (53, 7019),

Gene: YungJamal\_48 Start: 23304, Stop: 23690, Start Num: 27

Candidate Starts for YungJamal\_48:

(Start: 19 @23265 has 4 MA's), (Start: 20 @23271 has 1 MA's), (Start: 24 @23283 has 3 MA's), (Start: 27 @23304 has 20 MA's), (50, 23502), (61, 23676),

Gene: Zakhe101\_45 Start: 22682, Stop: 23101, Start Num: 20

Candidate Starts for Zakhe101\_45:

(Start: 19 @22676 has 4 MA's), (Start: 20 @22682 has 1 MA's), (Start: 24 @22694 has 3 MA's), (Start: 27 @22715 has 20 MA's), (50, 22913), (61, 23087),

Gene: Zebo\_44 Start: 22966, Stop: 23385, Start Num: 20

Candidate Starts for Zebo\_44:

(Start: 19 @22960 has 4 MA's), (Start: 20 @22966 has 1 MA's), (Start: 24 @22978 has 3 MA's), (26, 22993), (Start: 27 @22999 has 20 MA's), (50, 23197), (61, 23371),

Gene: Zerg\_9 Start: 6780, Stop: 7106, Start Num: 17

Candidate Starts for Zerg\_9:

(Start: 17 @6780 has 195 MA's), (Start: 25 @6810 has 65 MA's), (Start: 27 @6825 has 20 MA's), (32, 6858), (34, 6882), (39, 6921), (43, 6954), (53, 7020),

Gene: Zilizebeth\_12 Start: 7932, Stop: 8309, Start Num: 18

Candidate Starts for Zilizebeth\_12:

(8, 7848), (Start: 18 @7932 has 47 MA's), (49, 8145), (54, 8187), (56, 8205),

Gene: Zizzle\_9 Start: 6813, Stop: 7109, Start Num: 25

Candidate Starts for Zizzle\_9:

(Start: 17 @6783 has 195 MA's), (Start: 25 @6813 has 65 MA's), (Start: 27 @6828 has 20 MA's), (32, 6861), (34, 6885), (39, 6924), (43, 6957), (53, 7023),