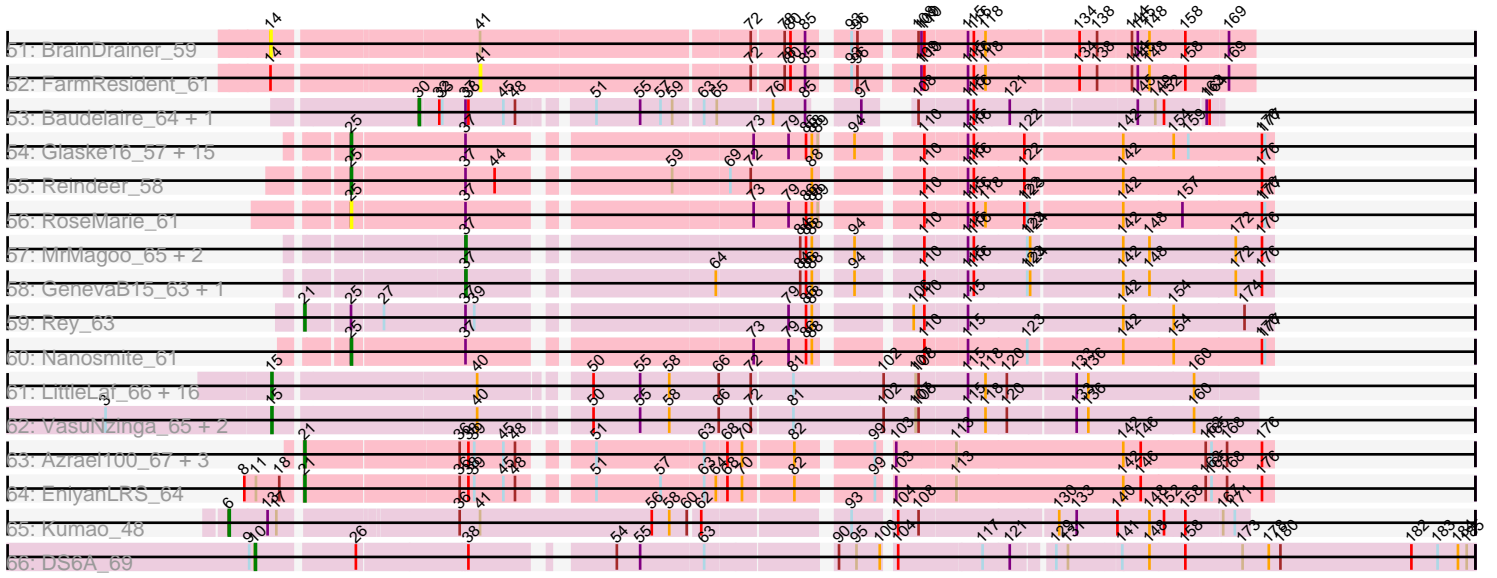




Pham 304650



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 304650 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304650 has 314 members, 40 are drafts.

Phages represented in each track:

- Track 1 : Issmi\_32
- Track 2 : Caelum\_32
- Track 3 : Schmidt\_40
- Track 4 : Catfish\_44
- Track 5 : Volt\_86, Ronaldo\_86
- Track 6 : Ziko\_85, Guey18\_87, Fryberger\_82
- Track 7 : Keelan\_83
- Track 8 : Syleon\_59, Kudrefre\_58
- Track 9 : Sephiroth\_57
- Track 10 : Octobien14\_58
- Track 11 : Neville\_58
- Track 12 : LilJank\_56
- Track 13 : Rabbitrun\_58
- Track 14 : Trax\_57
- Track 15 : OrionPax\_66, Tuco\_68, ShamWow\_67, NoSleep\_68, TBrady12\_70, MadamMonkfish\_67, StellaBean\_65, BilboSwaggins\_65, Czyszczonek\_68, Nala\_69, Miniwave\_62, Mindy\_66, SirDuracell\_66, TeardropMSU\_63, Bruin\_64, Manda\_67, Dumbo\_67, RiverMonster\_67, BigBubba\_67, Pumpkin\_70, Easy2Say\_68, IHOP\_65, Goku\_65, xkcd\_70, Becksu\_66, Bogg\_67, Teaspoon\_68, ABCat\_64, Elph10\_67, SophKB\_64, Kostya\_67, Eureka\_65, Ptowny\_64, Youngblood\_70, Filch\_68, Murphy\_67, ChosenOne\_67, CrystalP\_66, Murica\_70, StormChicken\_69, Cjw1\_67, Elite2014\_66, PaddyBaddy\_67, Maxxinista\_69, Thresher\_69, BaboJay\_64, Dusk\_64, Terminus\_70, Highbury\_66, Pharsalus\_64, BadStone\_64, Gator\_65, Toto\_65, Adnama\_71, Moldemort\_70, DoctorDiddles\_66, Phaja\_65, Asriel\_66, Porky\_66, MPhalcon\_68, Tarkin\_66, Traaww1\_63, Rakim\_68, HufflyPuff\_70, Paperbeatsrock\_66, Simpliphy\_66, Henry\_65, FireRed\_71, Lilpickle\_66, Bask21\_67, NonchalantPear\_67, Saints25\_66, Contagion\_63, Barbarian\_66, Ukulele\_62, Misfit\_68, Mosby\_63, Phrux\_64, Wiggin\_69, Xandras\_66, MISSy\_68, Stank\_70, Emmina\_67
- Track 16 : MollyToe\_62, Rimmer\_68, NelitzaMV\_65, Marshmallow\_65, Tomaszewski\_62, Sotrice96\_68, Cactus\_70, YassJohnny\_64, Sassay\_62, Daikon\_69, Buck\_68, GoldenSpark\_71, Glexan\_66, Kanye\_64, Holt\_72, AmericanBeauty\_71, Goldilocks\_70, 244\_68, FairyPath\_68, Cookies\_64, Harella\_67, Thimble\_68, Gemini\_72, Gage\_69, Brewer\_63, Balomoji\_67, Command613\_69, GooberAzure\_70, Kimchi\_71, Icee\_68, Argent26\_71, Hoonter\_70, Pat3\_65, StolenFromERC\_70, Qualification\_68, Flypotenuse\_63, Myrale\_67, Willez\_62, ShereKhan\_66

- Track 17 : Amao\_67, FoghornLeghorn\_61, Palpatine\_69, Lilac\_69, BugsBunny\_67, HanKaySha\_67, Greep\_71, Hopey\_67, ChotaBhai\_67, Liveloughbron\_69, Nimrod\_68, Stark\_68, JeTaime\_67, DrDrey\_67, Petra64142\_71, Policronamos\_70, TeamEdward\_69, Phaux\_69
- Track 18 : Budgie\_73
- Track 19 : Lilizi\_68, Bench\_70
- Track 20 : Inca\_64
- Track 21 : PhatBacter\_71
- Track 22 : MAckerman\_58, LeBron\_58, DirkDirk\_56, Halena\_57
- Track 23 : Zaria\_60, Wamburggrxpress\_59, Calm\_60
- Track 24 : JoeDirt\_58
- Track 25 : CicholasNage\_58, Acquire49\_59
- Track 26 : Poochiewood\_59, Wyatt2\_60, Rose5\_59, Tyson\_59
- Track 27 : Enceladus\_57, Appletree2\_59
- Track 28 : AvadaKedavra\_59, Silverleaf\_59
- Track 29 : OhShagHennessy\_57
- Track 30 : UPIE\_59
- Track 31 : Soap141\_61
- Track 32 : Faith1\_61, Miley16\_61, Zakai\_62, DrSeegs\_61, Gardann\_62, Lynnae\_62, BigCheese\_61, BobsGarage\_61, Gabriela\_58, GuuelaD\_60, Nicholasp3\_61, MkaliMitinis3\_62, LilDestine\_61, Breezona\_61, Crossroads\_61, OverPar\_62, Vetric\_61, Underpass\_52, SoJulia\_63, Itos\_60, Kahlid\_61, Rumpelstiltskin\_60, Wilder\_62, Loadrie\_60, Hafay\_62, Sarshaun\_61, Netyap\_62, Finemlucis\_61, Lewan\_62, Winky\_61
- Track 33 : Wigglewiggles\_61
- Track 34 : Bazzle\_61, Archie\_61
- Track 35 : ZhongYanYuan\_59, Baoshan\_60, DHan\_62, DanBing\_61
- Track 36 : Claus\_61
- Track 37 : Tourach\_60
- Track 38 : Rossetti\_62
- Track 39 : Krypton555\_62
- Track 40 : DuncansLeg\_61
- Track 41 : Moostard\_60, TriFive\_62, Bellis\_61, Jobypre\_61, Nicholas\_60, Kingsolomon\_60, Lumos\_62, Samty\_61, Clautastrophe\_60, MsGreen\_61, Red305\_61, Jubie\_60, Snenia\_60, Finnry\_61
- Track 42 : Ellson\_60, LiyuLake\_60, KirDoubleO7\_59, BourbonZero\_61
- Track 43 : Lolly9\_60, MiniLon\_64
- Track 44 : Whirlwind\_61
- Track 45 : MiniMac\_64
- Track 46 : Bromden\_60
- Track 47 : Douge\_59, ChutneyChips\_59, Chaser\_57, Sheng711\_59, Quby\_59, Douzhi\_59
- Track 48 : Kropertea\_58
- Track 49 : DyoEdafos\_61
- Track 50 : PYPDinur\_57
- Track 51 : BrainDrainer\_59
- Track 52 : FarmResident\_61
- Track 53 : Baudelaire\_64, Aegeus\_64
- Track 54 : Glaske16\_57, LilhomieP\_55, Skinny\_58, PegLeg\_56, SlimJimmy\_55, Diminimus\_57, FreakyGoo\_57, Dulcita\_57, TyDawg\_56, KleverKiS\_57, Bricole\_56, TpudiCK\_58, Bongo\_56, IPhane7\_56, Auspice\_56, Izel\_57
- Track 55 : Reindeer\_58
- Track 56 : RoseMarie\_61

- Track 57 : MrMagoo\_65, GardenSalsa\_64, Estes\_64
- Track 58 : GenevaB15\_63, Aziz\_62
- Track 59 : Rey\_63
- Track 60 : Nanosmite\_61
- Track 61 : LittleLaf\_66, FeliMaine\_68, JoieB\_67, Marvin\_62, Blackbeetle\_66, MosMoris\_63, Caprice\_61, RedRaider77\_65, GoongGoong\_65, Corazon\_64, Raela\_66, Lilbit\_64, Poise\_66, Clarkson\_67, Huphlepuuff\_68, Gattaca\_64, Tesla\_63
- Track 62 : VasuNzinga\_65, Beelzebub\_70, Pringar\_65
- Track 63 : Azrael100\_67, Wildcat\_67, MaryV\_67, Cosmo\_68
- Track 64 : EniyanLRS\_64
- Track 65 : Kumao\_48
- Track 66 : DS6A\_69

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

The start number called the most often in the published annotations is 6, it was called in 135 of the 274 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244\_68, ABCat\_64, Adnama\_71, Amao\_67, AmericanBeauty\_71, Argent26\_71, Asriel\_66, BaboJay\_64, BadStone\_64, Balomoji\_67, Barbarian\_66, Bask21\_67, Becksu\_66, Bench\_70, BigBubba\_67, BilboSwaggins\_65, Bogg\_67, Brewer\_63, Bruin\_64, Buck\_68, Budgie\_73, BugsBunny\_67, Cactus\_70, Calm\_60, ChosenOne\_67, ChotaBhai\_67, Cjw1\_67, Command613\_69, Contagion\_63, Cookies\_64, CrystalP\_66, Czyszczonek\_68, Daikon\_69, DoctorDiddles\_66, DrDrey\_67, Dumbo\_67, Dusk\_64, Easy2Say\_68, Elite2014\_66, Elph10\_67, Emmina\_67, Eureka\_65, FairyPath\_68, Filch\_68, FireRed\_71, Flypotenuse\_63, FoghornLeghorn\_61, Gage\_69, Gator\_65, Gemini\_72, Glexan\_66, Goku\_65, GoldenSpark\_71, Goldilocks\_70, GooberAzure\_70, Greep\_71, HanKaySha\_67, Harella\_67, Henry\_65, Highbury\_66, Holt\_72, Hoonter\_70, Hopey\_67, HufflyPuff\_70, IHOP\_65, Icee\_68, JeTaime\_67, Kanye\_64, Kimchi\_71, Kostya\_67, Kumao\_48, Lilac\_69, Lilizi\_68, Lilpickle\_66, Liveloughbron\_69, MISSy\_68, MPhalcon\_68, MadamMonkfish\_67, Manda\_67, Marshmallow\_65, Maxxinista\_69, Mindy\_66, Miniwave\_62, Misfit\_68, Moldemort\_70, MollyToe\_62, Mosby\_63, Murica\_70, Murphy\_67, Myrale\_67, Nala\_69, NelitzaMV\_65, Nimrod\_68, NoSleep\_68, NonchalantPear\_67, OrionPax\_66, PaddyBaddy\_67, Palpatine\_69, Paperbeatsrock\_66, Pat3\_65, Petra64142\_71, Phaja\_65, Pharsalus\_64, PhatBacter\_71, Phaux\_69, Phrux\_64, Policronamos\_70, Porky\_66, Ptowny\_64, Pumpkin\_70, Quallification\_68, Rakim\_68, Rimmer\_68, RiverMonster\_67, Saints25\_66, Sassay\_62, ShamWow\_67, ShereKhan\_66, Simpliphy\_66, SirDuracell\_66, SophKB\_64, Sotrice96\_68, Stank\_70, Stark\_68, StellaBean\_65, StolenFromERC\_70, StormChicken\_69, TBrady12\_70, Tarkin\_66, TeamEdward\_69, TeardropMSU\_63, Teaspoon\_68, Terminus\_70, Thimble\_68, Thresher\_69, Tomaszewski\_62, Toto\_65, Traaww1\_63, Tuco\_68, Ukulele\_62, Wamburgxpress\_59, Wiggin\_69, Willez\_62, Xandras\_66, YassJohnny\_64, Youngblood\_70, Zaria\_60, xkcd\_70,

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

- Inca\_64, OhShagHennessy\_57,

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

- Acquire49\_59, Aegeus\_64, Appletree2\_59, Archie\_61, Auspice\_56, AvadaKedavra\_59, Aziz\_62, Azrael100\_67, Baoshan\_60, Baudelaire\_64, Bazzle\_61, Beelzebub\_70, Bellis\_61, BigCheese\_61, Blackbeetle\_66, BobsGarage\_61, Bongo\_56, BourbonZero\_61, BrainDrainer\_59, Breezona\_61, Bricole\_56, Bromden\_60, Caelum\_32, Caprice\_61, Catfish\_44, Chaser\_57, ChutneyChips\_59, CicholasNage\_58, Clarkson\_67, Claus\_61, Clautastrophe\_60, Corazon\_64, Cosmo\_68, Crossroads\_61, DHan\_62, DS6A\_69, DanBing\_61, Diminimus\_57, DirkDirk\_56, Douge\_59, Douzhi\_59, DrSeegs\_61, Dulcita\_57, DuncansLeg\_61, DyoEdafos\_61, Ellson\_60, Enceladus\_57, EniyanLRS\_64, Estes\_64, Faith1\_61, FarmResident\_61, FeliMaine\_68, Finemlucis\_61, Finnry\_61, FreakyGoo\_57, Fryberger\_82, Gabriela\_58, Gardann\_62, GardenSalsa\_64, Gattaca\_64, GenevaB15\_63, Glaske16\_57, GoongGoong\_65, Guey18\_87, GuuelaD\_60, Hafay\_62, Halena\_57, Huphlepuuff\_68, IPhone7\_56, Issmi\_32, Itos\_60, Izel\_57, Jobypre\_61, JoeDirt\_58, JoieB\_67, Jubie\_60, Kahlid\_61, Keelan\_83, Kingsolomon\_60, KirDoubleO7\_59, KleverKiS\_57, Kropertea\_58, Krypton555\_62, Kudrefre\_58, LeBron\_58, Lewan\_62, LilDestine\_61, LilJank\_56, Lilbit\_64, LilhomieP\_55, LittleLaf\_66, LiyuLake\_60, Loadrie\_60, Lolly9\_60, Lumos\_62, Lynnae\_62, MAckerman\_58, Marvin\_62, MaryV\_67, Miley16\_61, MiniLon\_64, MiniMac\_64, MkaliMitinis3\_62, Moostard\_60, MosMoris\_63, MrMagoo\_65, MsGreen\_61, Nanosmite\_61, Netyap\_62, Neville\_58, Nicholas\_60, Nicholasp3\_61, Octobien14\_58, OverPar\_62, PYPDinur\_57, PegLeg\_56, Poise\_66, Poochiewood\_59, Pringar\_65, Quby\_59, Rabbitrun\_58, Raela\_66, Red305\_61, RedRaider77\_65, Reindeer\_58, Rey\_63, Ronaldo\_86, Rose5\_59, RoseMarie\_61, Rossetti\_62, Rumpelstiltskin\_60, Samty\_61, Sarshaun\_61, Schmidt\_40, Sephiroth\_57, Sheng711\_59, Silverleaf\_59, Skinny\_58, SlimJimmy\_55, Snenia\_60, SoJulia\_63, Soap141\_61, Syleon\_59, Tesla\_63, Tourach\_60, TpudiCK\_58, Trax\_57, TriFive\_62, TyDawg\_56, Tyson\_59, UPIE\_59, Underpass\_52, VasuNzinga\_65, Vetrix\_61, Volt\_86, Whirlwind\_61, Wigglewiggle\_61, Wildcat\_67, Wilder\_62, Winky\_61, Wyatt2\_60, Zakai\_62, ZhongYanYuan\_59, Ziko\_85,

### Summary by start number:

Start 6:

- Found in 150 of 314 ( 47.8% ) of genes in pham
- Manual Annotations of this start: 135 of 274
- Called 98.7% of time when present
- Phage (with cluster) where this start called: 244\_68 (E), ABCat\_64 (E), Adnama\_71 (E), Amao\_67 (E), AmericanBeauty\_71 (E), Argent26\_71 (E), Asriel\_66 (E), BaboJay\_64 (E), BadStone\_64 (E), Balomoji\_67 (E), Barbarian\_66 (E), Bask21\_67 (E), Becksu\_66 (E), Bench\_70 (E), BigBubba\_67 (E), BilboSwaggins\_65 (E), Bogg\_67 (E), Brewer\_63 (E), Bruin\_64 (E), Buck\_68 (E), Budgie\_73 (E), BugsBunny\_67 (E), Cactus\_70 (E), Calm\_60 (L1), ChosenOne\_67 (E), ChotaBhai\_67 (E), Cjw1\_67 (E), Command613\_69 (E), Contagion\_63 (E), Cookies\_64 (E), CrystalP\_66 (E), Czystczon1\_68 (E), Daikon\_69 (E), DoctorDiddles\_66 (E), DrDrey\_67 (E), Dumbo\_67 (E), Dusk\_64 (E), Easy2Say\_68 (E), Elite2014\_66 (E), Elph10\_67 (E), Emmina\_67 (E), Eureka\_65 (E), FairyPath\_68 (E), Filch\_68 (E), FireRed\_71 (E), Flypotenuse\_63 (E), FoghornLeghorn\_61 (E), Gage\_69 (E), Gator\_65 (E), Gemini\_72 (E), Glexan\_66 (E), Goku\_65 (E), GoldenSpark\_71 (E), Goldilocks\_70 (E), GooberAzure\_70 (E), Greep\_71 (E), HanKaySha\_67 (E), Harella\_67 (E), Henry\_65 (E), Highbury\_66 (E), Holt\_72 (E), Hoonter\_70 (E), Hopey\_67 (E), HufflyPuff\_70 (E), IHOP\_65 (E), Icee\_68 (E), JeTaimie\_67 (E), Kanye\_64 (E), Kimchi\_71 (E), Kostya\_67 (E), Kumao\_48 (singleton), Lilac\_69 (E),

Lilizi\_68 (E), Lilpickle\_66 (E), Liveloughbron\_69 (E), MISSy\_68 (E), MPhalcon\_68 (E), MadamMonkfish\_67 (E), Manda\_67 (E), Marshmallow\_65 (E), Maxxinsta\_69 (E), Mindy\_66 (E), Miniwave\_62 (E), Misfit\_68 (E), Moldemort\_70 (E), MollyToe\_62 (E), Mosby\_63 (E), Murica\_70 (E), Murphy\_67 (E), Myrale\_67 (E), Nala\_69 (E), NelitzaMV\_65 (E), Nimrod\_68 (E), NoSleep\_68 (E), NonchalantPear\_67 (E), OrionPax\_66 (E), PaddyBaddy\_67 (E), Palpatine\_69 (E), Paperbeatsrock\_66 (E), Pat3\_65 (E), Petra64142\_71 (E), Phaja\_65 (E), Pharsalus\_64 (E), PhatBacter\_71 (E), Phaux\_69 (E), Phrux\_64 (E), Policronamos\_70 (E), Porky\_66 (E), Ptowny\_64 (E), Pumpkin\_70 (E), Qualification\_68 (E), Rakim\_68 (E), Rimmer\_68 (E), RiverMonster\_67 (E), Saints25\_66 (E), Sassay\_62 (E), ShamWow\_67 (E), ShereKhan\_66 (E), Simpliphy\_66 (E), SirDuracell\_66 (E), SophKB\_64 (E), Sotrice96\_68 (E), Stank\_70 (E), Stark\_68 (E), StellaBean\_65 (E), StolenFromERC\_70 (E), StormChicken\_69 (E), TBrady12\_70 (E), Tarkin\_66 (E), TeamEdward\_69 (E), TeardropMSU\_63 (E), Teaspoon\_68 (E), Terminus\_70 (E), Thimble\_68 (E), Thresher\_69 (E), Tomaszewski\_62 (E), Toto\_65 (E), Traaww1\_63 (E), Tuco\_68 (E), Ukulele\_62 (E), Wamburgxpress\_59 (L1), Wiggin\_69 (E), Willez\_62 (E), Xandras\_66 (E), YassJohnny\_64 (E), Youngblood\_70 (E), Zaria\_60 (L1), xkcd\_70 (E),

#### Start 10:

- Found in 1 of 314 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 274
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A\_69 (singleton),

#### Start 13:

- Found in 146 of 314 ( 46.5% ) of genes in pham
- Manual Annotations of this start: 1 of 274
- Called 0.7% of time when present
- Phage (with cluster) where this start called: Inca\_64 (E),

#### Start 14:

- Found in 70 of 314 ( 22.3% ) of genes in pham
- Manual Annotations of this start: 48 of 274
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Acquire49\_59 (L1), Archie\_61 (L2), AvadaKedavra\_59 (L1), Baoshan\_60 (L2), Bazzle\_61 (L2), BigCheese\_61 (L2), BobsGarage\_61 (L2), BrainDrainer\_59 (L4), Breezona\_61 (L2), Chaser\_57 (L4), ChutneyChips\_59 (L4), CicholasNage\_58 (L1), Claus\_61 (L2), Crossroads\_61 (L2), DHan\_62 (L2), DanBing\_61 (L2), DirkDirk\_56 (L1), Douge\_59 (L4), Douzhi\_59 (L4), DrSeegs\_61 (L2), Faith1\_61 (L2), Finemlucis\_61 (L2), Gabriela\_58 (L2), Gardann\_62 (L2), GuuelaD\_60 (L2), Hafay\_62 (L2), Halena\_57 (L1), Itos\_60 (L2), JoeDirt\_58 (L1), Kahlid\_61 (L2), LeBron\_58 (L1), Lewan\_62 (L2), LilDestine\_61 (L2), Loadrie\_60 (L2), Lynnae\_62 (L2), MAckerman\_58 (L1), Miley16\_61 (L2), MkaliMitinis3\_62 (L2), Netyap\_62 (L2), Nicholasp3\_61 (L2), OhShagHennessy\_57 (L1), OverPar\_62 (L2), PYPDinur\_57 (L4), Poochiewood\_59 (L1), Quby\_59 (L4), Rose5\_59 (L1), Rossetti\_62 (L2), Rumpelstiltskin\_60 (L2), Sarshaun\_61 (L2), Sheng711\_59 (L4), Silverleaf\_59 (L1), SoJulia\_63 (L2), Tourach\_60 (L2), Tyson\_59 (L1), UPIE\_59 (L1), Underpass\_52 (L2), Vetrix\_61 (L2), Wigglewiggle\_61 (L2), Wilder\_62 (L2), Winky\_61 (L2), Wyatt2\_60 (L1), Zakai\_62 (L2), ZhongYanYuan\_59 (L2),

#### Start 15:

- Found in 22 of 314 ( 7.0% ) of genes in pham

- Manual Annotations of this start: 21 of 274
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beelzebub\_70 (S), Blackbeetle\_66 (S), Caprice\_61 (S), Catfish\_44 (CU5), Clarkson\_67 (S), Corazon\_64 (S), FeliMaine\_68 (S), Gattaca\_64 (S), GoongGoong\_65 (S), Huphlepuuff\_68 (S), JoieB\_67 (S), Lilbit\_64 (S), LittleLaf\_66 (S), Marvin\_62 (S), MosMoris\_63 (S), Poise\_66 (S), Pringar\_65 (S), Raela\_66 (S), RedRaider77\_65 (S), Schmidt\_40 (CU4), Tesla\_63 (S), VasuNzinga\_65 (S),

#### Start 16:

- Found in 150 of 314 ( 47.8% ) of genes in pham
- Manual Annotations of this start: 2 of 274
- Called 1.3% of time when present
- Phage (with cluster) where this start called: DyoEdafos\_61 (L4), Kropertea\_58 (L4),

#### Start 17:

- Found in 9 of 314 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 7 of 274
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Kudrefre\_58 (DU1), LiJank\_56 (DU2), Neville\_58 (DU2), Octobien14\_58 (DU1), Rabbitrun\_58 (DU2), Sephiroth\_57 (DU1), Syleon\_59 (DU1), Trax\_57 (DU2),

#### Start 21:

- Found in 6 of 314 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 6 of 274
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100\_67 (V), Cosmo\_68 (V), EniyanLRS\_64 (V), MaryV\_67 (V), Rey\_63 (M2), Wildcat\_67 (V),

#### Start 25:

- Found in 20 of 314 ( 6.4% ) of genes in pham
- Manual Annotations of this start: 16 of 274
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Auspice\_56 (M1), Bongo\_56 (M1), Bricole\_56 (M1), Diminimus\_57 (M1), Dulcita\_57 (M1), FreakyGoo\_57 (M1), Glaske16\_57 (M1), IPhane7\_56 (M1), Izel\_57 (M1), KleverKiS\_57 (M1), LilhomieP\_55 (M1), Nanosmite\_61 (M3), PegLeg\_56 (M1), Reindeer\_58 (M1), RoseMarie\_61 (M1), Skinny\_58 (M1), SlimJimmy\_55 (M1), TpudiCK\_58 (M1), TyDawg\_56 (M1),

#### Start 29:

- Found in 6 of 314 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 6 of 274
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_82 (DP), Guey18\_87 (DP), Keelan\_83 (DP), Ronaldo\_86 (DP), Volt\_86 (DP), Ziko\_85 (DP),

#### Start 30:

- Found in 7 of 314 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 2 of 274
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Aegeus\_64 (L5), Baudelaire\_64 (L5),

Start 37:

- Found in 29 of 314 ( 9.2% ) of genes in pham
- Manual Annotations of this start: 5 of 274
- Called 17.2% of time when present
- Phage (with cluster) where this start called: Aziz\_62 (M2), Estes\_64 (M2), GardenSalsa\_64 (M2), GenevaB15\_63 (M2), MrMagoo\_65 (M2),

Start 38:

- Found in 12 of 314 ( 3.8% ) of genes in pham
- Manual Annotations of this start: 1 of 274
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Caelum\_32 (BD2),

Start 40:

- Found in 197 of 314 ( 62.7% ) of genes in pham
- Manual Annotations of this start: 19 of 274
- Called 12.2% of time when present
- Phage (with cluster) where this start called: Bellis\_61 (L3), BourbonZero\_61 (L3), Clautastrophe\_60 (L3), DuncansLeg\_61 (L3), Ellson\_60 (L3), Finnry\_61 (L3), Jobypre\_61 (L3), Jubie\_60 (L3), Kingsolomon\_60 (L3), KirDoubleO7\_59 (L3), Krypton555\_62 (L3), LiyuLake\_60 (L3), Lolly9\_60 (L3), Lumos\_62 (L3), MiniLon\_64 (L3), MiniMac\_64 (L3), Moostard\_60 (L3), MsGreen\_61 (L3), Nicholas\_60 (L3), Red305\_61 (L3), Samty\_61 (L3), Snenia\_60 (L3), TriFive\_62 (L3), Whirlwind\_61 (L3),

Start 41:

- Found in 239 of 314 ( 76.1% ) of genes in pham
- Manual Annotations of this start: 3 of 274
- Called 2.1% of time when present
- Phage (with cluster) where this start called: Appletree2\_59 (L1), Bromden\_60 (L4), Enceladus\_57 (L1), FarmResident\_61 (L4), Soap141\_61 (L2),

Start 42:

- Found in 1 of 314 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 274
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Issmi\_32 (BD2),

**Summary by clusters:**

There are 18 clusters represented in this pham: V, CU4, E, L1, S, DU1, L4, L5, M1, L3, M3, BD2, L2, singleton, CU5, M2, DU2, DP,

Info for manual annotations of cluster BD2:

- Start number 38 was manually annotated 1 time for cluster BD2.
- Start number 42 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster CU4:

- Start number 15 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 15 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster DP:

- Start number 29 was manually annotated 6 times for cluster DP.

Info for manual annotations of cluster DU1:

- Start number 17 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 17 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster E:

- Start number 6 was manually annotated 131 times for cluster E.
- Start number 13 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster L1:

- Start number 6 was manually annotated 3 times for cluster L1.
- Start number 14 was manually annotated 14 times for cluster L1.
- Start number 41 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 14 was manually annotated 31 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 40 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 14 was manually annotated 3 times for cluster L4.
- Start number 16 was manually annotated 2 times for cluster L4.
- Start number 41 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster L5:

- Start number 30 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 25 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 21 was manually annotated 1 time for cluster M2.
- Start number 37 was manually annotated 5 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 25 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster S:

- Start number 15 was manually annotated 19 times for cluster S.

Info for manual annotations of cluster V:

- Start number 21 was manually annotated 5 times for cluster V.

**Gene Information:**

Gene: 244\_68 Start: 44193, Stop: 45161, Start Num: 6

Candidate Starts for 244\_68:

(Start: 6 @44193 has 135 MA's), (Start: 13 @44232 has 1 MA's), (Start: 16 @44238 has 2 MA's), (22, 44262), (23, 44280), (36, 44412), (39, 44427), (Start: 40 @44430 has 19 MA's), (Start: 41 @44433 has 3 MA's), (51, 44550), (53, 44568), (93, 44781), (135, 44997), (137, 45009), (139, 45015), (145, 45051), (158, 45099), (171, 45147),

Gene: ABCat\_64 Start: 44540, Stop: 45508, Start Num: 6

Candidate Starts for ABCat\_64:

(Start: 6 @44540 has 135 MA's), (Start: 13 @44579 has 1 MA's), (Start: 16 @44585 has 2 MA's), (22, 44609), (23, 44627), (36, 44759), (39, 44774), (Start: 40 @44777 has 19 MA's), (Start: 41 @44780 has 3 MA's), (51, 44897), (53, 44915), (93, 45128), (135, 45344), (137, 45356), (139, 45362), (145, 45398), (158, 45446), (171, 45494),

Gene: Acquire49\_59 Start: 41447, Stop: 42379, Start Num: 14

Candidate Starts for Acquire49\_59:

(Start: 14 @41447 has 48 MA's), (Start: 41 @41645 has 3 MA's), (78, 41942), (80, 41948), (87, 41969), (91, 41981), (93, 41993), (107, 42047), (109, 42053), (115, 42098), (116, 42104), (118, 42116), (133, 42203), (134, 42206), (135, 42209), (138, 42224), (148, 42275), (158, 42311), (169, 42353),

Gene: Adnama\_71 Start: 44563, Stop: 45531, Start Num: 6

Candidate Starts for Adnama\_71:

(Start: 6 @44563 has 135 MA's), (Start: 13 @44602 has 1 MA's), (Start: 16 @44608 has 2 MA's), (22, 44632), (23, 44650), (36, 44782), (39, 44797), (Start: 40 @44800 has 19 MA's), (Start: 41 @44803 has 3 MA's), (51, 44920), (53, 44938), (93, 45151), (135, 45367), (137, 45379), (139, 45385), (145, 45421), (158, 45469), (171, 45517),

Gene: Aegeus\_64 Start: 43641, Stop: 44339, Start Num: 30

Candidate Starts for Aegeus\_64:

(Start: 30 @43641 has 2 MA's), (32, 43659), (33, 43662), (Start: 37 @43686 has 5 MA's), (Start: 38 @43689 has 1 MA's), (45, 43725), (48, 43737), (51, 43797), (55, 43842), (57, 43863), (59, 43875), (63, 43902), (65, 43914), (76, 43965), (85, 43998), (97, 44028), (108, 44052), (115, 44100), (116, 44106), (121, 44142), (145, 44259), (149, 44277), (152, 44286), (163, 44325), (164, 44328),

Gene: Amao\_67 Start: 43948, Stop: 44916, Start Num: 6

Candidate Starts for Amao\_67:

(Start: 6 @43948 has 135 MA's), (Start: 13 @43987 has 1 MA's), (Start: 16 @43993 has 2 MA's), (22, 44017), (23, 44035), (36, 44167), (39, 44182), (Start: 40 @44185 has 19 MA's), (Start: 41 @44188 has 3 MA's), (51, 44305), (53, 44323), (93, 44536), (135, 44752), (137, 44764), (139, 44770), (145, 44806), (158, 44854), (171, 44902),

Gene: AmericanBeauty\_71 Start: 44706, Stop: 45674, Start Num: 6

Candidate Starts for AmericanBeauty\_71:

(Start: 6 @44706 has 135 MA's), (Start: 13 @44745 has 1 MA's), (Start: 16 @44751 has 2 MA's), (22, 44775), (23, 44793), (36, 44925), (39, 44940), (Start: 40 @44943 has 19 MA's), (Start: 41 @44946 has 3 MA's), (51, 45063), (53, 45081), (93, 45294), (135, 45510), (137, 45522), (139, 45528), (145, 45564), (158, 45612), (171, 45660),

Gene: Appletree2\_59 Start: 41937, Stop: 42671, Start Num: 41

Candidate Starts for Appletree2\_59:

(Start: 14 @41739 has 48 MA's), (Start: 41 @41937 has 3 MA's), (78, 42234), (80, 42240), (87, 42261), (91, 42273), (93, 42285), (107, 42339), (109, 42345), (115, 42390), (116, 42396), (118, 42408), (133, 42495), (134, 42498), (135, 42501), (138, 42516), (144, 42549), (147, 42561), (148, 42567), (158, 42603), (166, 42636), (169, 42645),

Gene: Archie\_61 Start: 43741, Stop: 44673, Start Num: 14

Candidate Starts for Archie\_61:

(Start: 14 @43741 has 48 MA's), (Start: 41 @43939 has 3 MA's), (78, 44236), (91, 44275), (93, 44287), (110, 44350), (115, 44392), (116, 44398), (118, 44410), (133, 44497), (134, 44500), (138, 44518), (144, 44551), (148, 44569), (150, 44581), (158, 44605), (169, 44647),

Gene: Argent26\_71 Start: 44344, Stop: 45312, Start Num: 6

Candidate Starts for Argent26\_71:

(Start: 6 @44344 has 135 MA's), (Start: 13 @44383 has 1 MA's), (Start: 16 @44389 has 2 MA's), (22, 44413), (23, 44431), (36, 44563), (39, 44578), (Start: 40 @44581 has 19 MA's), (Start: 41 @44584 has 3 MA's), (51, 44701), (53, 44719), (93, 44932), (135, 45148), (137, 45160), (139, 45166), (145, 45202), (158, 45250), (171, 45298),

Gene: Asriel\_66 Start: 42900, Stop: 43868, Start Num: 6

Candidate Starts for Asriel\_66:

(Start: 6 @42900 has 135 MA's), (Start: 13 @42939 has 1 MA's), (Start: 16 @42945 has 2 MA's), (22, 42969), (23, 42987), (36, 43119), (39, 43134), (Start: 40 @43137 has 19 MA's), (Start: 41 @43140 has 3 MA's), (51, 43257), (53, 43275), (93, 43488), (135, 43704), (137, 43716), (139, 43722), (145, 43758), (158, 43806), (171, 43854),

Gene: Auspice\_56 Start: 39488, Stop: 40348, Start Num: 25

Candidate Starts for Auspice\_56:

(Start: 25 @39488 has 16 MA's), (Start: 37 @39602 has 5 MA's), (73, 39860), (79, 39896), (86, 39914), (88, 39920), (89, 39926), (94, 39947), (110, 40004), (115, 40043), (116, 40049), (122, 40100), (142, 40196), (154, 40247), (159, 40262), (176, 40337), (177, 40340),

Gene: AvadaKedavra\_59 Start: 41520, Stop: 42452, Start Num: 14

Candidate Starts for AvadaKedavra\_59:

(Start: 14 @41520 has 48 MA's), (Start: 41 @41718 has 3 MA's), (78, 42015), (80, 42021), (87, 42042), (91, 42054), (93, 42066), (96, 42072), (107, 42120), (109, 42126), (115, 42171), (116, 42177), (118, 42189), (134, 42279), (135, 42282), (138, 42297), (148, 42348), (158, 42384), (169, 42426),

Gene: Aziz\_62 Start: 41623, Stop: 42369, Start Num: 37

Candidate Starts for Aziz\_62:

(Start: 37 @41623 has 5 MA's), (64, 41845), (84, 41929), (86, 41935), (88, 41941), (94, 41968), (110, 42025), (115, 42064), (116, 42070), (123, 42124), (124, 42127), (142, 42217), (148, 42244), (172, 42331), (176, 42358),

Gene: Azrael100\_67 Start: 44691, Stop: 45596, Start Num: 21

Candidate Starts for Azrael100\_67:

(Start: 21 @44691 has 6 MA's), (36, 44844), (Start: 38 @44853 has 1 MA's), (39, 44859), (45, 44889), (48, 44901), (51, 44952), (63, 45060), (68, 45081), (70, 45096), (82, 45144), (99, 45210), (103, 45219), (113, 45276), (142, 45444), (146, 45462), (162, 45528), (165, 45534), (168, 45549), (176, 45585),

Gene: BaboJay\_64 Start: 43737, Stop: 44705, Start Num: 6

Candidate Starts for BaboJay\_64:

(Start: 6 @43737 has 135 MA's), (Start: 13 @43776 has 1 MA's), (Start: 16 @43782 has 2 MA's), (22, 43806), (23, 43824), (36, 43956), (39, 43971), (Start: 40 @43974 has 19 MA's), (Start: 41 @43977 has 3 MA's), (51, 44094), (53, 44112), (93, 44325), (135, 44541), (137, 44553), (139, 44559), (145, 44595), (158, 44643), (171, 44691),

Gene: BadStone\_64 Start: 44109, Stop: 45077, Start Num: 6

Candidate Starts for BadStone\_64:

(Start: 6 @44109 has 135 MA's), (Start: 13 @44148 has 1 MA's), (Start: 16 @44154 has 2 MA's), (22, 44178), (23, 44196), (36, 44328), (39, 44343), (Start: 40 @44346 has 19 MA's), (Start: 41 @44349 has 3 MA's), (51, 44466), (53, 44484), (93, 44697), (135, 44913), (137, 44925), (139, 44931), (145, 44967), (158, 45015), (171, 45063),

Gene: Balomoji\_67 Start: 44670, Stop: 45638, Start Num: 6

Candidate Starts for Balomoji\_67:

(Start: 6 @44670 has 135 MA's), (Start: 13 @44709 has 1 MA's), (Start: 16 @44715 has 2 MA's), (22, 44739), (23, 44757), (36, 44889), (39, 44904), (Start: 40 @44907 has 19 MA's), (Start: 41 @44910 has 3 MA's), (51, 45027), (53, 45045), (93, 45258), (135, 45474), (137, 45486), (139, 45492), (145, 45528), (158, 45576), (171, 45624),

Gene: Baoshan\_60 Start: 43439, Stop: 44371, Start Num: 14

Candidate Starts for Baoshan\_60:

(Start: 14 @43439 has 48 MA's), (Start: 41 @43637 has 3 MA's), (78, 43934), (91, 43973), (93, 43985), (109, 44045), (110, 44048), (115, 44090), (118, 44108), (120, 44129), (133, 44195), (134, 44198), (138, 44216), (148, 44267), (150, 44279), (158, 44303), (169, 44345),

Gene: Barbarian\_66 Start: 42900, Stop: 43868, Start Num: 6

Candidate Starts for Barbarian\_66:

(Start: 6 @42900 has 135 MA's), (Start: 13 @42939 has 1 MA's), (Start: 16 @42945 has 2 MA's), (22, 42969), (23, 42987), (36, 43119), (39, 43134), (Start: 40 @43137 has 19 MA's), (Start: 41 @43140 has 3 MA's), (51, 43257), (53, 43275), (93, 43488), (135, 43704), (137, 43716), (139, 43722), (145, 43758), (158, 43806), (171, 43854),

Gene: Bask21\_67 Start: 43511, Stop: 44479, Start Num: 6

Candidate Starts for Bask21\_67:

(Start: 6 @43511 has 135 MA's), (Start: 13 @43550 has 1 MA's), (Start: 16 @43556 has 2 MA's), (22, 43580), (23, 43598), (36, 43730), (39, 43745), (Start: 40 @43748 has 19 MA's), (Start: 41 @43751 has 3 MA's), (51, 43868), (53, 43886), (93, 44099), (135, 44315), (137, 44327), (139, 44333), (145, 44369), (158, 44417), (171, 44465),

Gene: Baudelaire\_64 Start: 43641, Stop: 44339, Start Num: 30

Candidate Starts for Baudelaire\_64:

(Start: 30 @43641 has 2 MA's), (32, 43659), (33, 43662), (Start: 37 @43686 has 5 MA's), (Start: 38 @43689 has 1 MA's), (45, 43725), (48, 43737), (51, 43797), (55, 43842), (57, 43863), (59, 43875), (63, 43902), (65, 43914), (76, 43965), (85, 43998), (97, 44028), (108, 44052), (115, 44100), (116, 44106), (121, 44142), (145, 44259), (149, 44277), (152, 44286), (163, 44325), (164, 44328),

Gene: Bazzle\_61 Start: 43811, Stop: 44743, Start Num: 14

Candidate Starts for Bazzle\_61:

(Start: 14 @43811 has 48 MA's), (Start: 41 @44009 has 3 MA's), (78, 44306), (91, 44345), (93, 44357), (110, 44420), (115, 44462), (116, 44468), (118, 44480), (133, 44567), (134, 44570), (138, 44588), (144, 44621), (148, 44639), (150, 44651), (158, 44675), (169, 44717),

Gene: Becksu\_66 Start: 44739, Stop: 45707, Start Num: 6

Candidate Starts for Becksu\_66:

(Start: 6 @44739 has 135 MA's), (Start: 13 @44778 has 1 MA's), (Start: 16 @44784 has 2 MA's), (22, 44808), (23, 44826), (36, 44958), (39, 44973), (Start: 40 @44976 has 19 MA's), (Start: 41 @44979 has 3 MA's), (51, 45096), (53, 45114), (93, 45327), (135, 45543), (137, 45555), (139, 45561), (145, 45597), (158, 45645), (171, 45693),

Gene: Beelzebub\_70 Start: 37655, Stop: 38608, Start Num: 15

Candidate Starts for Beelzebub\_70:

(3, 37487), (Start: 15 @37655 has 21 MA's), (Start: 40 @37853 has 19 MA's), (50, 37946), (55, 37994), (58, 38024), (66, 38075), (72, 38108), (81, 38147), (102, 38237), (107, 38270), (108, 38273), (115, 38321), (118, 38339), (120, 38360), (133, 38426), (136, 38438), (160, 38546),

Gene: Bellis\_61 Start: 44017, Stop: 44754, Start Num: 40

Candidate Starts for Bellis\_61:

(Start: 40 @44017 has 19 MA's), (Start: 41 @44020 has 3 MA's), (93, 44368), (104, 44404), (107, 44422), (109, 44428), (116, 44479), (118, 44491), (120, 44512), (134, 44581), (135, 44584), (138, 44599), (144, 44632), (145, 44638), (147, 44644), (158, 44686), (169, 44728), (171, 44734),

Gene: Bench\_70 Start: 44210, Stop: 45178, Start Num: 6

Candidate Starts for Bench\_70:

(Start: 6 @44210 has 135 MA's), (Start: 13 @44249 has 1 MA's), (Start: 16 @44255 has 2 MA's), (22, 44279), (23, 44297), (36, 44429), (39, 44444), (Start: 40 @44447 has 19 MA's), (Start: 41 @44450 has 3 MA's), (51, 44567), (53, 44585), (93, 44798), (135, 45014), (137, 45026), (139, 45032), (145, 45068), (158, 45116), (171, 45164),

Gene: BigBubba\_67 Start: 43919, Stop: 44887, Start Num: 6

Candidate Starts for BigBubba\_67:

(Start: 6 @43919 has 135 MA's), (Start: 13 @43958 has 1 MA's), (Start: 16 @43964 has 2 MA's), (22, 43988), (23, 44006), (36, 44138), (39, 44153), (Start: 40 @44156 has 19 MA's), (Start: 41 @44159 has 3 MA's), (51, 44276), (53, 44294), (93, 44507), (135, 44723), (137, 44735), (139, 44741), (145, 44777), (158, 44825), (171, 44873),

Gene: BigCheese\_61 Start: 43496, Stop: 44428, Start Num: 14

Candidate Starts for BigCheese\_61:

(Start: 14 @43496 has 48 MA's), (Start: 41 @43694 has 3 MA's), (78, 43991), (91, 44030), (93, 44042), (96, 44048), (110, 44105), (115, 44147), (116, 44153), (133, 44252), (134, 44255), (138, 44273), (144, 44306), (145, 44312), (148, 44324), (158, 44360), (169, 44402),

Gene: BilboSwaggins\_65 Start: 44548, Stop: 45516, Start Num: 6

Candidate Starts for BilboSwaggins\_65:

(Start: 6 @44548 has 135 MA's), (Start: 13 @44587 has 1 MA's), (Start: 16 @44593 has 2 MA's), (22, 44617), (23, 44635), (36, 44767), (39, 44782), (Start: 40 @44785 has 19 MA's), (Start: 41 @44788 has 3 MA's), (51, 44905), (53, 44923), (93, 45136), (135, 45352), (137, 45364), (139, 45370), (145, 45406), (158, 45454), (171, 45502),

Gene: Blackbeetle\_66 Start: 36700, Stop: 37653, Start Num: 15

Candidate Starts for Blackbeetle\_66:

(Start: 15 @36700 has 21 MA's), (Start: 40 @36898 has 19 MA's), (50, 36991), (55, 37039), (58, 37069), (66, 37120), (72, 37153), (81, 37192), (102, 37282), (107, 37315), (108, 37318), (115, 37366), (118, 37384), (120, 37405), (133, 37471), (136, 37483), (160, 37591),

Gene: BobsGarage\_61 Start: 43496, Stop: 44428, Start Num: 14

Candidate Starts for BobsGarage\_61:

(Start: 14 @43496 has 48 MA's), (Start: 41 @43694 has 3 MA's), (78, 43991), (91, 44030), (93, 44042), (96, 44048), (110, 44105), (115, 44147), (116, 44153), (133, 44252), (134, 44255), (138, 44273), (144, 44306), (145, 44312), (148, 44324), (158, 44360), (169, 44402),

Gene: Bogg\_67 Start: 43489, Stop: 44457, Start Num: 6

Candidate Starts for Bogg\_67:

(Start: 6 @43489 has 135 MA's), (Start: 13 @43528 has 1 MA's), (Start: 16 @43534 has 2 MA's), (22, 43558), (23, 43576), (36, 43708), (39, 43723), (Start: 40 @43726 has 19 MA's), (Start: 41 @43729 has 3 MA's), (51, 43846), (53, 43864), (93, 44077), (135, 44293), (137, 44305), (139, 44311), (145, 44347), (158, 44395), (171, 44443),

Gene: Bongo\_56 Start: 39492, Stop: 40352, Start Num: 25

Candidate Starts for Bongo\_56:

(Start: 25 @39492 has 16 MA's), (Start: 37 @39606 has 5 MA's), (73, 39864), (79, 39900), (86, 39918), (88, 39924), (89, 39930), (94, 39951), (110, 40008), (115, 40047), (116, 40053), (122, 40104), (142, 40200), (154, 40251), (159, 40266), (176, 40341), (177, 40344),

Gene: BourbonZero\_61 Start: 44062, Stop: 44799, Start Num: 40

Candidate Starts for BourbonZero\_61:

(Start: 40 @44062 has 19 MA's), (Start: 41 @44065 has 3 MA's), (93, 44413), (109, 44473), (110, 44476), (116, 44524), (118, 44536), (120, 44557), (128, 44593), (134, 44626), (135, 44629), (138, 44644), (144, 44677), (145, 44683), (147, 44689), (158, 44731), (169, 44773), (171, 44779),

Gene: BrainDrainer\_59 Start: 42362, Stop: 43294, Start Num: 14

Candidate Starts for BrainDrainer\_59:

(Start: 14 @42362 has 48 MA's), (Start: 41 @42560 has 3 MA's), (72, 42827), (78, 42857), (80, 42863), (85, 42878), (93, 42908), (96, 42914), (108, 42965), (109, 42968), (110, 42971), (115, 43013), (116, 43019), (118, 43031), (134, 43121), (138, 43139), (144, 43172), (145, 43178), (148, 43190), (158, 43226), (169, 43268),

Gene: Breezona\_61 Start: 43496, Stop: 44428, Start Num: 14

Candidate Starts for Breezona\_61:

(Start: 14 @43496 has 48 MA's), (Start: 41 @43694 has 3 MA's), (78, 43991), (91, 44030), (93, 44042), (96, 44048), (110, 44105), (115, 44147), (116, 44153), (133, 44252), (134, 44255), (138, 44273), (144, 44306), (145, 44312), (148, 44324), (158, 44360), (169, 44402),

Gene: Brewer\_63 Start: 43006, Stop: 43974, Start Num: 6

Candidate Starts for Brewer\_63:

(Start: 6 @43006 has 135 MA's), (Start: 13 @43045 has 1 MA's), (Start: 16 @43051 has 2 MA's), (22, 43075), (23, 43093), (36, 43225), (39, 43240), (Start: 40 @43243 has 19 MA's), (Start: 41 @43246 has 3 MA's), (51, 43363), (53, 43381), (93, 43594), (135, 43810), (137, 43822), (139, 43828), (145, 43864), (158, 43912), (171, 43960),

Gene: Bricole\_56 Start: 39474, Stop: 40334, Start Num: 25

Candidate Starts for Bricole\_56:

(Start: 25 @39474 has 16 MA's), (Start: 37 @39588 has 5 MA's), (73, 39846), (79, 39882), (86, 39900), (88, 39906), (89, 39912), (94, 39933), (110, 39990), (115, 40029), (116, 40035), (122, 40086), (142, 40182), (154, 40233), (159, 40248), (176, 40323), (177, 40326),

Gene: Bromden\_60 Start: 43232, Stop: 43966, Start Num: 41

Candidate Starts for Bromden\_60:

(Start: 41 @43232 has 3 MA's), (62, 43451), (72, 43499), (78, 43529), (93, 43580), (96, 43586), (107, 43634), (115, 43685), (116, 43691), (118, 43703), (134, 43793), (138, 43811), (144, 43844), (145, 43850), (148, 43862), (158, 43898), (166, 43931),

Gene: Bruin\_64 Start: 43083, Stop: 44051, Start Num: 6

Candidate Starts for Bruin\_64:

(Start: 6 @43083 has 135 MA's), (Start: 13 @43122 has 1 MA's), (Start: 16 @43128 has 2 MA's), (22, 43152), (23, 43170), (36, 43302), (39, 43317), (Start: 40 @43320 has 19 MA's), (Start: 41 @43323 has

3 MA's), (51, 43440), (53, 43458), (93, 43671), (135, 43887), (137, 43899), (139, 43905), (145, 43941), (158, 43989), (171, 44037),

Gene: Buck\_68 Start: 44791, Stop: 45759, Start Num: 6

Candidate Starts for Buck\_68:

(Start: 6 @44791 has 135 MA's), (Start: 13 @44830 has 1 MA's), (Start: 16 @44836 has 2 MA's), (22, 44860), (23, 44878), (36, 45010), (39, 45025), (Start: 40 @45028 has 19 MA's), (Start: 41 @45031 has 3 MA's), (51, 45148), (53, 45166), (93, 45379), (135, 45595), (137, 45607), (139, 45613), (145, 45649), (158, 45697), (171, 45745),

Gene: Budgie\_73 Start: 44728, Stop: 45696, Start Num: 6

Candidate Starts for Budgie\_73:

(Start: 6 @44728 has 135 MA's), (Start: 13 @44767 has 1 MA's), (22, 44797), (24, 44833), (36, 44947), (39, 44962), (Start: 41 @44968 has 3 MA's), (51, 45085), (53, 45103), (64, 45202), (72, 45235), (93, 45316), (127, 45490), (135, 45532), (145, 45586), (153, 45619), (158, 45634), (167, 45670),

Gene: BugsBunny\_67 Start: 44618, Stop: 45586, Start Num: 6

Candidate Starts for BugsBunny\_67:

(Start: 6 @44618 has 135 MA's), (Start: 13 @44657 has 1 MA's), (Start: 16 @44663 has 2 MA's), (22, 44687), (23, 44705), (36, 44837), (39, 44852), (Start: 40 @44855 has 19 MA's), (Start: 41 @44858 has 3 MA's), (51, 44975), (53, 44993), (93, 45206), (135, 45422), (137, 45434), (139, 45440), (145, 45476), (158, 45524), (171, 45572),

Gene: Cactus\_70 Start: 43564, Stop: 44532, Start Num: 6

Candidate Starts for Cactus\_70:

(Start: 6 @43564 has 135 MA's), (Start: 13 @43603 has 1 MA's), (Start: 16 @43609 has 2 MA's), (22, 43633), (23, 43651), (36, 43783), (39, 43798), (Start: 40 @43801 has 19 MA's), (Start: 41 @43804 has 3 MA's), (51, 43921), (53, 43939), (93, 44152), (135, 44368), (137, 44380), (139, 44386), (145, 44422), (158, 44470), (171, 44518),

Gene: Caelum\_32 Start: 24614, Stop: 25366, Start Num: 38

Candidate Starts for Caelum\_32:

(12, 24422), (Start: 38 @24614 has 1 MA's), (59, 24791), (69, 24845), (70, 24857), (71, 24860), (80, 24902), (87, 24923), (116, 25043), (119, 25061), (142, 25187), (144, 25196), (151, 25226), (156, 25244), (159, 25253), (179, 25337), (181, 25349),

Gene: Calm\_60 Start: 41867, Stop: 42850, Start Num: 6

Candidate Starts for Calm\_60:

(Start: 6 @41867 has 135 MA's), (Start: 14 @41909 has 48 MA's), (20, 41930), (Start: 41 @42116 has 3 MA's), (78, 42413), (80, 42419), (87, 42440), (91, 42452), (93, 42464), (107, 42518), (109, 42524), (115, 42569), (116, 42575), (118, 42587), (133, 42674), (134, 42677), (135, 42680), (138, 42695), (144, 42728), (147, 42740), (148, 42746), (158, 42782), (166, 42815), (169, 42824),

Gene: Caprice\_61 Start: 37014, Stop: 37967, Start Num: 15

Candidate Starts for Caprice\_61:

(Start: 15 @37014 has 21 MA's), (Start: 40 @37212 has 19 MA's), (50, 37305), (55, 37353), (58, 37383), (66, 37434), (72, 37467), (81, 37506), (102, 37596), (107, 37629), (108, 37632), (115, 37680), (118, 37698), (120, 37719), (133, 37785), (136, 37797), (160, 37905),

Gene: Catfish\_44 Start: 31656, Stop: 32582, Start Num: 15

Candidate Starts for Catfish\_44:

(Start: 15 @31656 has 21 MA's), (Start: 30 @31797 has 2 MA's), (Start: 37 @31842 has 5 MA's), (Start: 38 @31845 has 1 MA's), (48, 31893), (49, 31935), (59, 32025), (63, 32052), (72, 32097), (75,

32112), (83, 32139), (92, 32166), (97, 32178), (120, 32289), (128, 32325), (133, 32355), (152, 32445), (155, 32457), (169, 32505), (170, 32508), (175, 32526),

Gene: Chaser\_57 Start: 42134, Stop: 43066, Start Num: 14

Candidate Starts for Chaser\_57:

(Start: 14 @42134 has 48 MA's), (Start: 41 @42332 has 3 MA's), (72, 42599), (78, 42629), (80, 42635), (85, 42650), (93, 42680), (96, 42686), (109, 42740), (110, 42743), (115, 42785), (116, 42791), (118, 42803), (134, 42893), (138, 42911), (144, 42944), (145, 42950), (148, 42962), (158, 42998), (169, 43040),

Gene: ChosenOne\_67 Start: 43567, Stop: 44535, Start Num: 6

Candidate Starts for ChosenOne\_67:

(Start: 6 @43567 has 135 MA's), (Start: 13 @43606 has 1 MA's), (Start: 16 @43612 has 2 MA's), (22, 43636), (23, 43654), (36, 43786), (39, 43801), (Start: 40 @43804 has 19 MA's), (Start: 41 @43807 has 3 MA's), (51, 43924), (53, 43942), (93, 44155), (135, 44371), (137, 44383), (139, 44389), (145, 44425), (158, 44473), (171, 44521),

Gene: ChotaBhai\_67 Start: 43879, Stop: 44847, Start Num: 6

Candidate Starts for ChotaBhai\_67:

(Start: 6 @43879 has 135 MA's), (Start: 13 @43918 has 1 MA's), (Start: 16 @43924 has 2 MA's), (22, 43948), (23, 43966), (36, 44098), (39, 44113), (Start: 40 @44116 has 19 MA's), (Start: 41 @44119 has 3 MA's), (51, 44236), (53, 44254), (93, 44467), (135, 44683), (137, 44695), (139, 44701), (145, 44737), (158, 44785), (171, 44833),

Gene: ChutneyChips\_59 Start: 42398, Stop: 43330, Start Num: 14

Candidate Starts for ChutneyChips\_59:

(Start: 14 @42398 has 48 MA's), (Start: 41 @42596 has 3 MA's), (72, 42863), (78, 42893), (80, 42899), (85, 42914), (93, 42944), (96, 42950), (109, 43004), (110, 43007), (115, 43049), (116, 43055), (118, 43067), (134, 43157), (138, 43175), (144, 43208), (145, 43214), (148, 43226), (158, 43262), (169, 43304),

Gene: CicholasNage\_58 Start: 41483, Stop: 42415, Start Num: 14

Candidate Starts for CicholasNage\_58:

(Start: 14 @41483 has 48 MA's), (Start: 41 @41681 has 3 MA's), (78, 41978), (80, 41984), (87, 42005), (91, 42017), (93, 42029), (107, 42083), (109, 42089), (115, 42134), (116, 42140), (118, 42152), (133, 42239), (134, 42242), (135, 42245), (138, 42260), (148, 42311), (158, 42347), (169, 42389),

Gene: Cjw1\_67 Start: 45264, Stop: 46232, Start Num: 6

Candidate Starts for Cjw1\_67:

(Start: 6 @45264 has 135 MA's), (Start: 13 @45303 has 1 MA's), (Start: 16 @45309 has 2 MA's), (22, 45333), (23, 45351), (36, 45483), (39, 45498), (Start: 40 @45501 has 19 MA's), (Start: 41 @45504 has 3 MA's), (51, 45621), (53, 45639), (93, 45852), (135, 46068), (137, 46080), (139, 46086), (145, 46122), (158, 46170), (171, 46218),

Gene: Clarkson\_67 Start: 37383, Stop: 38336, Start Num: 15

Candidate Starts for Clarkson\_67:

(Start: 15 @37383 has 21 MA's), (Start: 40 @37581 has 19 MA's), (50, 37674), (55, 37722), (58, 37752), (66, 37803), (72, 37836), (81, 37875), (102, 37965), (107, 37998), (108, 38001), (115, 38049), (118, 38067), (120, 38088), (133, 38154), (136, 38166), (160, 38274),

Gene: Claus\_61 Start: 43577, Stop: 44509, Start Num: 14

Candidate Starts for Claus\_61:

(Start: 14 @43577 has 48 MA's), (Start: 41 @43775 has 3 MA's), (78, 44072), (91, 44111), (93, 44123), (96, 44129), (109, 44183), (110, 44186), (115, 44228), (118, 44246), (120, 44267), (133, 44333), (134, 44336), (138, 44354), (148, 44405), (150, 44417), (158, 44441), (169, 44483),

Gene: Clautastrophe\_60 Start: 44014, Stop: 44751, Start Num: 40

Candidate Starts for Clautastrophe\_60:

(Start: 40 @44014 has 19 MA's), (Start: 41 @44017 has 3 MA's), (93, 44365), (104, 44401), (107, 44419), (109, 44425), (116, 44476), (118, 44488), (120, 44509), (134, 44578), (135, 44581), (138, 44596), (144, 44629), (145, 44635), (147, 44641), (158, 44683), (169, 44725), (171, 44731),

Gene: Command613\_69 Start: 44603, Stop: 45571, Start Num: 6

Candidate Starts for Command613\_69:

(Start: 6 @44603 has 135 MA's), (Start: 13 @44642 has 1 MA's), (Start: 16 @44648 has 2 MA's), (22, 44672), (23, 44690), (36, 44822), (39, 44837), (Start: 40 @44840 has 19 MA's), (Start: 41 @44843 has 3 MA's), (51, 44960), (53, 44978), (93, 45191), (135, 45407), (137, 45419), (139, 45425), (145, 45461), (158, 45509), (171, 45557),

Gene: Contagion\_63 Start: 43364, Stop: 44332, Start Num: 6

Candidate Starts for Contagion\_63:

(Start: 6 @43364 has 135 MA's), (Start: 13 @43403 has 1 MA's), (Start: 16 @43409 has 2 MA's), (22, 43433), (23, 43451), (36, 43583), (39, 43598), (Start: 40 @43601 has 19 MA's), (Start: 41 @43604 has 3 MA's), (51, 43721), (53, 43739), (93, 43952), (135, 44168), (137, 44180), (139, 44186), (145, 44222), (158, 44270), (171, 44318),

Gene: Cookies\_64 Start: 43733, Stop: 44701, Start Num: 6

Candidate Starts for Cookies\_64:

(Start: 6 @43733 has 135 MA's), (Start: 13 @43772 has 1 MA's), (Start: 16 @43778 has 2 MA's), (22, 43802), (23, 43820), (36, 43952), (39, 43967), (Start: 40 @43970 has 19 MA's), (Start: 41 @43973 has 3 MA's), (51, 44090), (53, 44108), (93, 44321), (135, 44537), (137, 44549), (139, 44555), (145, 44591), (158, 44639), (171, 44687),

Gene: Corazon\_64 Start: 37577, Stop: 38530, Start Num: 15

Candidate Starts for Corazon\_64:

(Start: 15 @37577 has 21 MA's), (Start: 40 @37775 has 19 MA's), (50, 37868), (55, 37916), (58, 37946), (66, 37997), (72, 38030), (81, 38069), (102, 38159), (107, 38192), (108, 38195), (115, 38243), (118, 38261), (120, 38282), (133, 38348), (136, 38360), (160, 38468),

Gene: Cosmo\_68 Start: 44692, Stop: 45597, Start Num: 21

Candidate Starts for Cosmo\_68:

(Start: 21 @44692 has 6 MA's), (36, 44845), (Start: 38 @44854 has 1 MA's), (39, 44860), (45, 44890), (48, 44902), (51, 44953), (63, 45061), (68, 45082), (70, 45097), (82, 45145), (99, 45211), (103, 45220), (113, 45277), (142, 45445), (146, 45463), (162, 45529), (165, 45535), (168, 45550), (176, 45586),

Gene: Crossroads\_61 Start: 43574, Stop: 44506, Start Num: 14

Candidate Starts for Crossroads\_61:

(Start: 14 @43574 has 48 MA's), (Start: 41 @43772 has 3 MA's), (78, 44069), (91, 44108), (93, 44120), (96, 44126), (110, 44183), (115, 44225), (116, 44231), (133, 44330), (134, 44333), (138, 44351), (144, 44384), (145, 44390), (148, 44402), (158, 44438), (169, 44480),

Gene: CrystalP\_66 Start: 44548, Stop: 45516, Start Num: 6

Candidate Starts for CrystalP\_66:

(Start: 6 @44548 has 135 MA's), (Start: 13 @44587 has 1 MA's), (Start: 16 @44593 has 2 MA's), (22, 44617), (23, 44635), (36, 44767), (39, 44782), (Start: 40 @44785 has 19 MA's), (Start: 41 @44788 has

3 MA's), (51, 44905), (53, 44923), (93, 45136), (135, 45352), (137, 45364), (139, 45370), (145, 45406), (158, 45454), (171, 45502),

Gene: Czyszczone1\_68 Start: 44073, Stop: 45041, Start Num: 6

Candidate Starts for Czyszczone1\_68:

(Start: 6 @44073 has 135 MA's), (Start: 13 @44112 has 1 MA's), (Start: 16 @44118 has 2 MA's), (22, 44142), (23, 44160), (36, 44292), (39, 44307), (Start: 40 @44310 has 19 MA's), (Start: 41 @44313 has 3 MA's), (51, 44430), (53, 44448), (93, 44661), (135, 44877), (137, 44889), (139, 44895), (145, 44931), (158, 44979), (171, 45027),

Gene: DHan\_62 Start: 43477, Stop: 44409, Start Num: 14

Candidate Starts for DHan\_62:

(Start: 14 @43477 has 48 MA's), (Start: 41 @43675 has 3 MA's), (78, 43972), (91, 44011), (93, 44023), (109, 44083), (110, 44086), (115, 44128), (118, 44146), (120, 44167), (133, 44233), (134, 44236), (138, 44254), (148, 44305), (150, 44317), (158, 44341), (169, 44383),

Gene: DS6A\_69 Start: 44787, Stop: 45914, Start Num: 10

Candidate Starts for DS6A\_69:

(9, 44781), (Start: 10 @44787 has 1 MA's), (26, 44880), (Start: 38 @44988 has 1 MA's), (54, 45102), (55, 45126), (63, 45189), (90, 45303), (95, 45321), (100, 45345), (104, 45351), (117, 45432), (121, 45459), (129, 45492), (131, 45504), (141, 45555), (148, 45582), (158, 45618), (173, 45675), (178, 45702), (180, 45714), (182, 45849), (183, 45876), (184, 45897), (185, 45906),

Gene: Daikon\_69 Start: 44691, Stop: 45659, Start Num: 6

Candidate Starts for Daikon\_69:

(Start: 6 @44691 has 135 MA's), (Start: 13 @44730 has 1 MA's), (Start: 16 @44736 has 2 MA's), (22, 44760), (23, 44778), (36, 44910), (39, 44925), (Start: 40 @44928 has 19 MA's), (Start: 41 @44931 has 3 MA's), (51, 45048), (53, 45066), (93, 45279), (135, 45495), (137, 45507), (139, 45513), (145, 45549), (158, 45597), (171, 45645),

Gene: DanBing\_61 Start: 43446, Stop: 44378, Start Num: 14

Candidate Starts for DanBing\_61:

(Start: 14 @43446 has 48 MA's), (Start: 41 @43644 has 3 MA's), (78, 43941), (91, 43980), (93, 43992), (109, 44052), (110, 44055), (115, 44097), (118, 44115), (120, 44136), (133, 44202), (134, 44205), (138, 44223), (148, 44274), (150, 44286), (158, 44310), (169, 44352),

Gene: Diminimus\_57 Start: 39487, Stop: 40347, Start Num: 25

Candidate Starts for Diminimus\_57:

(Start: 25 @39487 has 16 MA's), (Start: 37 @39601 has 5 MA's), (73, 39859), (79, 39895), (86, 39913), (88, 39919), (89, 39925), (94, 39946), (110, 40003), (115, 40042), (116, 40048), (122, 40099), (142, 40195), (154, 40246), (159, 40261), (176, 40336), (177, 40339),

Gene: DirkDirk\_56 Start: 41325, Stop: 42257, Start Num: 14

Candidate Starts for DirkDirk\_56:

(Start: 14 @41325 has 48 MA's), (Start: 41 @41523 has 3 MA's), (78, 41820), (80, 41826), (87, 41847), (91, 41859), (93, 41871), (107, 41925), (109, 41931), (115, 41976), (116, 41982), (118, 41994), (133, 42081), (134, 42084), (135, 42087), (138, 42102), (144, 42135), (147, 42147), (148, 42153), (158, 42189), (166, 42222), (169, 42231),

Gene: DoctorDiddles\_66 Start: 43923, Stop: 44891, Start Num: 6

Candidate Starts for DoctorDiddles\_66:

(Start: 6 @43923 has 135 MA's), (Start: 13 @43962 has 1 MA's), (Start: 16 @43968 has 2 MA's), (22, 43992), (23, 44010), (36, 44142), (39, 44157), (Start: 40 @44160 has 19 MA's), (Start: 41 @44163 has

3 MA's), (51, 44280), (53, 44298), (93, 44511), (135, 44727), (137, 44739), (139, 44745), (145, 44781), (158, 44829), (171, 44877),

Gene: Douge\_59 Start: 42140, Stop: 43072, Start Num: 14

Candidate Starts for Douge\_59:

(Start: 14 @42140 has 48 MA's), (Start: 41 @42338 has 3 MA's), (72, 42605), (78, 42635), (80, 42641), (85, 42656), (93, 42686), (96, 42692), (109, 42746), (110, 42749), (115, 42791), (116, 42797), (118, 42809), (134, 42899), (138, 42917), (144, 42950), (145, 42956), (148, 42968), (158, 43004), (169, 43046),

Gene: Douzhi\_59 Start: 42190, Stop: 43122, Start Num: 14

Candidate Starts for Douzhi\_59:

(Start: 14 @42190 has 48 MA's), (Start: 41 @42388 has 3 MA's), (72, 42655), (78, 42685), (80, 42691), (85, 42706), (93, 42736), (96, 42742), (109, 42796), (110, 42799), (115, 42841), (116, 42847), (118, 42859), (134, 42949), (138, 42967), (144, 43000), (145, 43006), (148, 43018), (158, 43054), (169, 43096),

Gene: DrDrey\_67 Start: 44989, Stop: 45957, Start Num: 6

Candidate Starts for DrDrey\_67:

(Start: 6 @44989 has 135 MA's), (Start: 13 @45028 has 1 MA's), (Start: 16 @45034 has 2 MA's), (22, 45058), (23, 45076), (36, 45208), (39, 45223), (Start: 40 @45226 has 19 MA's), (Start: 41 @45229 has 3 MA's), (51, 45346), (53, 45364), (93, 45577), (135, 45793), (137, 45805), (139, 45811), (145, 45847), (158, 45895), (171, 45943),

Gene: DrSeegs\_61 Start: 43496, Stop: 44428, Start Num: 14

Candidate Starts for DrSeegs\_61:

(Start: 14 @43496 has 48 MA's), (Start: 41 @43694 has 3 MA's), (78, 43991), (91, 44030), (93, 44042), (96, 44048), (110, 44105), (115, 44147), (116, 44153), (133, 44252), (134, 44255), (138, 44273), (144, 44306), (145, 44312), (148, 44324), (158, 44360), (169, 44402),

Gene: Dulcita\_57 Start: 39488, Stop: 40348, Start Num: 25

Candidate Starts for Dulcita\_57:

(Start: 25 @39488 has 16 MA's), (Start: 37 @39602 has 5 MA's), (73, 39860), (79, 39896), (86, 39914), (88, 39920), (89, 39926), (94, 39947), (110, 40004), (115, 40043), (116, 40049), (122, 40100), (142, 40196), (154, 40247), (159, 40262), (176, 40337), (177, 40340),

Gene: Dumbo\_67 Start: 43472, Stop: 44440, Start Num: 6

Candidate Starts for Dumbo\_67:

(Start: 6 @43472 has 135 MA's), (Start: 13 @43511 has 1 MA's), (Start: 16 @43517 has 2 MA's), (22, 43541), (23, 43559), (36, 43691), (39, 43706), (Start: 40 @43709 has 19 MA's), (Start: 41 @43712 has 3 MA's), (51, 43829), (53, 43847), (93, 44060), (135, 44276), (137, 44288), (139, 44294), (145, 44330), (158, 44378), (171, 44426),

Gene: DuncansLeg\_61 Start: 44050, Stop: 44787, Start Num: 40

Candidate Starts for DuncansLeg\_61:

(Start: 40 @44050 has 19 MA's), (Start: 41 @44053 has 3 MA's), (93, 44401), (96, 44407), (104, 44437), (109, 44461), (110, 44464), (116, 44512), (118, 44524), (120, 44545), (134, 44614), (135, 44617), (138, 44632), (144, 44665), (145, 44671), (147, 44677), (150, 44695), (158, 44719), (169, 44761), (171, 44767),

Gene: Dusk\_64 Start: 43769, Stop: 44737, Start Num: 6

Candidate Starts for Dusk\_64:

(Start: 6 @43769 has 135 MA's), (Start: 13 @43808 has 1 MA's), (Start: 16 @43814 has 2 MA's), (22, 43838), (23, 43856), (36, 43988), (39, 44003), (Start: 40 @44006 has 19 MA's), (Start: 41 @44009 has 3 MA's), (51, 44126), (53, 44144), (93, 44357), (135, 44573), (137, 44585), (139, 44591), (145, 44627), (158, 44675), (171, 44723),

Gene: DyoEdafos\_61 Start: 42419, Stop: 43351, Start Num: 16

Candidate Starts for DyoEdafos\_61:

(Start: 16 @42419 has 2 MA's), (Start: 41 @42617 has 3 MA's), (72, 42884), (78, 42914), (80, 42920), (93, 42965), (96, 42971), (109, 43025), (110, 43028), (115, 43070), (116, 43076), (118, 43088), (134, 43178), (138, 43196), (144, 43229), (145, 43235), (148, 43247), (158, 43283), (169, 43325),

Gene: Easy2Say\_68 Start: 45010, Stop: 45978, Start Num: 6

Candidate Starts for Easy2Say\_68:

(Start: 6 @45010 has 135 MA's), (Start: 13 @45049 has 1 MA's), (Start: 16 @45055 has 2 MA's), (22, 45079), (23, 45097), (36, 45229), (39, 45244), (Start: 40 @45247 has 19 MA's), (Start: 41 @45250 has 3 MA's), (51, 45367), (53, 45385), (93, 45598), (135, 45814), (137, 45826), (139, 45832), (145, 45868), (158, 45916), (171, 45964),

Gene: Elite2014\_66 Start: 43566, Stop: 44534, Start Num: 6

Candidate Starts for Elite2014\_66:

(Start: 6 @43566 has 135 MA's), (Start: 13 @43605 has 1 MA's), (Start: 16 @43611 has 2 MA's), (22, 43635), (23, 43653), (36, 43785), (39, 43800), (Start: 40 @43803 has 19 MA's), (Start: 41 @43806 has 3 MA's), (51, 43923), (53, 43941), (93, 44154), (135, 44370), (137, 44382), (139, 44388), (145, 44424), (158, 44472), (171, 44520),

Gene: Ellson\_60 Start: 44078, Stop: 44815, Start Num: 40

Candidate Starts for Ellson\_60:

(Start: 40 @44078 has 19 MA's), (Start: 41 @44081 has 3 MA's), (93, 44429), (109, 44489), (110, 44492), (116, 44540), (118, 44552), (120, 44573), (128, 44609), (134, 44642), (135, 44645), (138, 44660), (144, 44693), (145, 44699), (147, 44705), (158, 44747), (169, 44789), (171, 44795),

Gene: Elph10\_67 Start: 43571, Stop: 44539, Start Num: 6

Candidate Starts for Elph10\_67:

(Start: 6 @43571 has 135 MA's), (Start: 13 @43610 has 1 MA's), (Start: 16 @43616 has 2 MA's), (22, 43640), (23, 43658), (36, 43790), (39, 43805), (Start: 40 @43808 has 19 MA's), (Start: 41 @43811 has 3 MA's), (51, 43928), (53, 43946), (93, 44159), (135, 44375), (137, 44387), (139, 44393), (145, 44429), (158, 44477), (171, 44525),

Gene: Emmina\_67 Start: 43473, Stop: 44441, Start Num: 6

Candidate Starts for Emmina\_67:

(Start: 6 @43473 has 135 MA's), (Start: 13 @43512 has 1 MA's), (Start: 16 @43518 has 2 MA's), (22, 43542), (23, 43560), (36, 43692), (39, 43707), (Start: 40 @43710 has 19 MA's), (Start: 41 @43713 has 3 MA's), (51, 43830), (53, 43848), (93, 44061), (135, 44277), (137, 44289), (139, 44295), (145, 44331), (158, 44379), (171, 44427),

Gene: Enceladus\_57 Start: 41518, Stop: 42252, Start Num: 41

Candidate Starts for Enceladus\_57:

(Start: 14 @41320 has 48 MA's), (Start: 41 @41518 has 3 MA's), (78, 41815), (80, 41821), (87, 41842), (91, 41854), (93, 41866), (107, 41920), (109, 41926), (115, 41971), (116, 41977), (118, 41989), (133, 42076), (134, 42079), (135, 42082), (138, 42097), (144, 42130), (147, 42142), (148, 42148), (158, 42184), (166, 42217), (169, 42226),

Gene: EniyanLRS\_64 Start: 44431, Stop: 45336, Start Num: 21

Candidate Starts for EniyanLRS\_64:

(8, 44380), (11, 44392), (18, 44416), (Start: 21 @44431 has 6 MA's), (36, 44584), (Start: 38 @44593 has 1 MA's), (39, 44599), (45, 44629), (48, 44641), (51, 44692), (57, 44758), (63, 44800), (64, 44812), (68, 44821), (70, 44836), (82, 44884), (99, 44950), (103, 44959), (113, 45016), (142, 45184), (146, 45202), (162, 45268), (165, 45274), (168, 45289), (176, 45325),

Gene: Estes\_64 Start: 41895, Stop: 42641, Start Num: 37

Candidate Starts for Estes\_64:

(Start: 37 @41895 has 5 MA's), (84, 42201), (86, 42207), (88, 42213), (94, 42240), (110, 42297), (115, 42336), (116, 42342), (123, 42396), (124, 42399), (142, 42489), (148, 42516), (172, 42603), (176, 42630),

Gene: Eureka\_65 Start: 44037, Stop: 45005, Start Num: 6

Candidate Starts for Eureka\_65:

(Start: 6 @44037 has 135 MA's), (Start: 13 @44076 has 1 MA's), (Start: 16 @44082 has 2 MA's), (22, 44106), (23, 44124), (36, 44256), (39, 44271), (Start: 40 @44274 has 19 MA's), (Start: 41 @44277 has 3 MA's), (51, 44394), (53, 44412), (93, 44625), (135, 44841), (137, 44853), (139, 44859), (145, 44895), (158, 44943), (171, 44991),

Gene: FairyPath\_68 Start: 44682, Stop: 45650, Start Num: 6

Candidate Starts for FairyPath\_68:

(Start: 6 @44682 has 135 MA's), (Start: 13 @44721 has 1 MA's), (Start: 16 @44727 has 2 MA's), (22, 44751), (23, 44769), (36, 44901), (39, 44916), (Start: 40 @44919 has 19 MA's), (Start: 41 @44922 has 3 MA's), (51, 45039), (53, 45057), (93, 45270), (135, 45486), (137, 45498), (139, 45504), (145, 45540), (158, 45588), (171, 45636),

Gene: Faith1\_61 Start: 43496, Stop: 44428, Start Num: 14

Candidate Starts for Faith1\_61:

(Start: 14 @43496 has 48 MA's), (Start: 41 @43694 has 3 MA's), (78, 43991), (91, 44030), (93, 44042), (96, 44048), (110, 44105), (115, 44147), (116, 44153), (133, 44252), (134, 44255), (138, 44273), (144, 44306), (145, 44312), (148, 44324), (158, 44360), (169, 44402),

Gene: FarmResident\_61 Start: 42354, Stop: 43088, Start Num: 41

Candidate Starts for FarmResident\_61:

(Start: 14 @42156 has 48 MA's), (Start: 41 @42354 has 3 MA's), (72, 42621), (78, 42651), (80, 42657), (85, 42672), (93, 42702), (96, 42708), (109, 42762), (110, 42765), (115, 42807), (116, 42813), (118, 42825), (134, 42915), (138, 42933), (144, 42966), (145, 42972), (148, 42984), (158, 43020), (169, 43062),

Gene: FeliMaine\_68 Start: 37625, Stop: 38578, Start Num: 15

Candidate Starts for FeliMaine\_68:

(Start: 15 @37625 has 21 MA's), (Start: 40 @37823 has 19 MA's), (50, 37916), (55, 37964), (58, 37994), (66, 38045), (72, 38078), (81, 38117), (102, 38207), (107, 38240), (108, 38243), (115, 38291), (118, 38309), (120, 38330), (133, 38396), (136, 38408), (160, 38516),

Gene: Filch\_68 Start: 43498, Stop: 44466, Start Num: 6

Candidate Starts for Filch\_68:

(Start: 6 @43498 has 135 MA's), (Start: 13 @43537 has 1 MA's), (Start: 16 @43543 has 2 MA's), (22, 43567), (23, 43585), (36, 43717), (39, 43732), (Start: 40 @43735 has 19 MA's), (Start: 41 @43738 has 3 MA's), (51, 43855), (53, 43873), (93, 44086), (135, 44302), (137, 44314), (139, 44320), (145, 44356), (158, 44404), (171, 44452),

Gene: Finemlucis\_61 Start: 43817, Stop: 44749, Start Num: 14

Candidate Starts for Finemlucis\_61:

(Start: 14 @43817 has 48 MA's), (Start: 41 @44015 has 3 MA's), (78, 44312), (91, 44351), (93, 44363), (96, 44369), (110, 44426), (115, 44468), (116, 44474), (133, 44573), (134, 44576), (138, 44594), (144, 44627), (145, 44633), (148, 44645), (158, 44681), (169, 44723),

Gene: Finnry\_61 Start: 44278, Stop: 45015, Start Num: 40

Candidate Starts for Finnry\_61:

(Start: 40 @44278 has 19 MA's), (Start: 41 @44281 has 3 MA's), (93, 44629), (104, 44665), (107, 44683), (109, 44689), (116, 44740), (118, 44752), (120, 44773), (134, 44842), (135, 44845), (138, 44860), (144, 44893), (145, 44899), (147, 44905), (158, 44947), (169, 44989), (171, 44995),

Gene: FireRed\_71 Start: 45060, Stop: 46028, Start Num: 6

Candidate Starts for FireRed\_71:

(Start: 6 @45060 has 135 MA's), (Start: 13 @45099 has 1 MA's), (Start: 16 @45105 has 2 MA's), (22, 45129), (23, 45147), (36, 45279), (39, 45294), (Start: 40 @45297 has 19 MA's), (Start: 41 @45300 has 3 MA's), (51, 45417), (53, 45435), (93, 45648), (135, 45864), (137, 45876), (139, 45882), (145, 45918), (158, 45966), (171, 46014),

Gene: Flypotenuse\_63 Start: 43554, Stop: 44522, Start Num: 6

Candidate Starts for Flypotenuse\_63:

(Start: 6 @43554 has 135 MA's), (Start: 13 @43593 has 1 MA's), (Start: 16 @43599 has 2 MA's), (22, 43623), (23, 43641), (36, 43773), (39, 43788), (Start: 40 @43791 has 19 MA's), (Start: 41 @43794 has 3 MA's), (51, 43911), (53, 43929), (93, 44142), (135, 44358), (137, 44370), (139, 44376), (145, 44412), (158, 44460), (171, 44508),

Gene: FoghornLeghorn\_61 Start: 42564, Stop: 43532, Start Num: 6

Candidate Starts for FoghornLeghorn\_61:

(Start: 6 @42564 has 135 MA's), (Start: 13 @42603 has 1 MA's), (Start: 16 @42609 has 2 MA's), (22, 42633), (23, 42651), (36, 42783), (39, 42798), (Start: 40 @42801 has 19 MA's), (Start: 41 @42804 has 3 MA's), (51, 42921), (53, 42939), (93, 43152), (135, 43368), (137, 43380), (139, 43386), (145, 43422), (158, 43470), (171, 43518),

Gene: FreakyGoo\_57 Start: 39488, Stop: 40348, Start Num: 25

Candidate Starts for FreakyGoo\_57:

(Start: 25 @39488 has 16 MA's), (Start: 37 @39602 has 5 MA's), (73, 39860), (79, 39896), (86, 39914), (88, 39920), (89, 39926), (94, 39947), (110, 40004), (115, 40043), (116, 40049), (122, 40100), (142, 40196), (154, 40247), (159, 40262), (176, 40337), (177, 40340),

Gene: Fryberger\_82 Start: 43615, Stop: 44385, Start Num: 29

Candidate Starts for Fryberger\_82:

(Start: 29 @43615 has 6 MA's), (35, 43660), (39, 43681), (47, 43720), (48, 43723), (52, 43804), (63, 43894), (64, 43906), (68, 43915), (80, 43975), (91, 44008), (93, 44020), (107, 44086), (110, 44092), (116, 44131), (133, 44230), (134, 44233), (144, 44284),

Gene: Gabriela\_58 Start: 41946, Stop: 42878, Start Num: 14

Candidate Starts for Gabriela\_58:

(Start: 14 @41946 has 48 MA's), (Start: 41 @42144 has 3 MA's), (78, 42441), (91, 42480), (93, 42492), (96, 42498), (110, 42555), (115, 42597), (116, 42603), (133, 42702), (134, 42705), (138, 42723), (144, 42756), (145, 42762), (148, 42774), (158, 42810), (169, 42852),

Gene: Gage\_69 Start: 44344, Stop: 45312, Start Num: 6

Candidate Starts for Gage\_69:

(Start: 6 @44344 has 135 MA's), (Start: 13 @44383 has 1 MA's), (Start: 16 @44389 has 2 MA's), (22, 44413), (23, 44431), (36, 44563), (39, 44578), (Start: 40 @44581 has 19 MA's), (Start: 41 @44584 has 3 MA's), (51, 44701), (53, 44719), (93, 44932), (135, 45148), (137, 45160), (139, 45166), (145, 45202), (158, 45250), (171, 45298),

Gene: Gardann\_62 Start: 43532, Stop: 44464, Start Num: 14

Candidate Starts for Gardann\_62:

(Start: 14 @43532 has 48 MA's), (Start: 41 @43730 has 3 MA's), (78, 44027), (91, 44066), (93, 44078), (96, 44084), (110, 44141), (115, 44183), (116, 44189), (133, 44288), (134, 44291), (138, 44309), (144, 44342), (145, 44348), (148, 44360), (158, 44396), (169, 44438),

Gene: GardenSalsa\_64 Start: 42057, Stop: 42803, Start Num: 37

Candidate Starts for GardenSalsa\_64:

(Start: 37 @42057 has 5 MA's), (84, 42363), (86, 42369), (88, 42375), (94, 42402), (110, 42459), (115, 42498), (116, 42504), (123, 42558), (124, 42561), (142, 42651), (148, 42678), (172, 42765), (176, 42792),

Gene: Gator\_65 Start: 44400, Stop: 45368, Start Num: 6

Candidate Starts for Gator\_65:

(Start: 6 @44400 has 135 MA's), (Start: 13 @44439 has 1 MA's), (Start: 16 @44445 has 2 MA's), (22, 44469), (23, 44487), (36, 44619), (39, 44634), (Start: 40 @44637 has 19 MA's), (Start: 41 @44640 has 3 MA's), (51, 44757), (53, 44775), (93, 44988), (135, 45204), (137, 45216), (139, 45222), (145, 45258), (158, 45306), (171, 45354),

Gene: Gattaca\_64 Start: 36804, Stop: 37757, Start Num: 15

Candidate Starts for Gattaca\_64:

(Start: 15 @36804 has 21 MA's), (Start: 40 @37002 has 19 MA's), (50, 37095), (55, 37143), (58, 37173), (66, 37224), (72, 37257), (81, 37296), (102, 37386), (107, 37419), (108, 37422), (115, 37470), (118, 37488), (120, 37509), (133, 37575), (136, 37587), (160, 37695),

Gene: Gemini\_72 Start: 44861, Stop: 45829, Start Num: 6

Candidate Starts for Gemini\_72:

(Start: 6 @44861 has 135 MA's), (Start: 13 @44900 has 1 MA's), (Start: 16 @44906 has 2 MA's), (22, 44930), (23, 44948), (36, 45080), (39, 45095), (Start: 40 @45098 has 19 MA's), (Start: 41 @45101 has 3 MA's), (51, 45218), (53, 45236), (93, 45449), (135, 45665), (137, 45677), (139, 45683), (145, 45719), (158, 45767), (171, 45815),

Gene: GenevaB15\_63 Start: 41623, Stop: 42369, Start Num: 37

Candidate Starts for GenevaB15\_63:

(Start: 37 @41623 has 5 MA's), (64, 41845), (84, 41929), (86, 41935), (88, 41941), (94, 41968), (110, 42025), (115, 42064), (116, 42070), (123, 42124), (124, 42127), (142, 42217), (148, 42244), (172, 42331), (176, 42358),

Gene: Glaske16\_57 Start: 39487, Stop: 40347, Start Num: 25

Candidate Starts for Glaske16\_57:

(Start: 25 @39487 has 16 MA's), (Start: 37 @39601 has 5 MA's), (73, 39859), (79, 39895), (86, 39913), (88, 39919), (89, 39925), (94, 39946), (110, 40003), (115, 40042), (116, 40048), (122, 40099), (142, 40195), (154, 40246), (159, 40261), (176, 40336), (177, 40339),

Gene: Glexan\_66 Start: 44681, Stop: 45649, Start Num: 6

Candidate Starts for Glexan\_66:

(Start: 6 @44681 has 135 MA's), (Start: 13 @44720 has 1 MA's), (Start: 16 @44726 has 2 MA's), (22, 44750), (23, 44768), (36, 44900), (39, 44915), (Start: 40 @44918 has 19 MA's), (Start: 41 @44921 has

3 MA's), (51, 45038), (53, 45056), (93, 45269), (135, 45485), (137, 45497), (139, 45503), (145, 45539), (158, 45587), (171, 45635),

Gene: Goku\_65 Start: 43766, Stop: 44734, Start Num: 6

Candidate Starts for Goku\_65:

(Start: 6 @43766 has 135 MA's), (Start: 13 @43805 has 1 MA's), (Start: 16 @43811 has 2 MA's), (22, 43835), (23, 43853), (36, 43985), (39, 44000), (Start: 40 @44003 has 19 MA's), (Start: 41 @44006 has 3 MA's), (51, 44123), (53, 44141), (93, 44354), (135, 44570), (137, 44582), (139, 44588), (145, 44624), (158, 44672), (171, 44720),

Gene: GoldenSpark\_71 Start: 44344, Stop: 45312, Start Num: 6

Candidate Starts for GoldenSpark\_71:

(Start: 6 @44344 has 135 MA's), (Start: 13 @44383 has 1 MA's), (Start: 16 @44389 has 2 MA's), (22, 44413), (23, 44431), (36, 44563), (39, 44578), (Start: 40 @44581 has 19 MA's), (Start: 41 @44584 has 3 MA's), (51, 44701), (53, 44719), (93, 44932), (135, 45148), (137, 45160), (139, 45166), (145, 45202), (158, 45250), (171, 45298),

Gene: Goldilocks\_70 Start: 43845, Stop: 44813, Start Num: 6

Candidate Starts for Goldilocks\_70:

(Start: 6 @43845 has 135 MA's), (Start: 13 @43884 has 1 MA's), (Start: 16 @43890 has 2 MA's), (22, 43914), (23, 43932), (36, 44064), (39, 44079), (Start: 40 @44082 has 19 MA's), (Start: 41 @44085 has 3 MA's), (51, 44202), (53, 44220), (93, 44433), (135, 44649), (137, 44661), (139, 44667), (145, 44703), (158, 44751), (171, 44799),

Gene: GooberAzure\_70 Start: 44344, Stop: 45312, Start Num: 6

Candidate Starts for GooberAzure\_70:

(Start: 6 @44344 has 135 MA's), (Start: 13 @44383 has 1 MA's), (Start: 16 @44389 has 2 MA's), (22, 44413), (23, 44431), (36, 44563), (39, 44578), (Start: 40 @44581 has 19 MA's), (Start: 41 @44584 has 3 MA's), (51, 44701), (53, 44719), (93, 44932), (135, 45148), (137, 45160), (139, 45166), (145, 45202), (158, 45250), (171, 45298),

Gene: GoongGoong\_65 Start: 36603, Stop: 37556, Start Num: 15

Candidate Starts for GoongGoong\_65:

(Start: 15 @36603 has 21 MA's), (Start: 40 @36801 has 19 MA's), (50, 36894), (55, 36942), (58, 36972), (66, 37023), (72, 37056), (81, 37095), (102, 37185), (107, 37218), (108, 37221), (115, 37269), (118, 37287), (120, 37308), (133, 37374), (136, 37386), (160, 37494),

Gene: Greep\_71 Start: 45349, Stop: 46317, Start Num: 6

Candidate Starts for Greep\_71:

(Start: 6 @45349 has 135 MA's), (Start: 13 @45388 has 1 MA's), (Start: 16 @45394 has 2 MA's), (22, 45418), (23, 45436), (36, 45568), (39, 45583), (Start: 40 @45586 has 19 MA's), (Start: 41 @45589 has 3 MA's), (51, 45706), (53, 45724), (93, 45937), (135, 46153), (137, 46165), (139, 46171), (145, 46207), (158, 46255), (171, 46303),

Gene: Guey18\_87 Start: 44948, Stop: 45718, Start Num: 29

Candidate Starts for Guey18\_87:

(Start: 29 @44948 has 6 MA's), (35, 44993), (39, 45014), (47, 45053), (48, 45056), (52, 45137), (63, 45227), (64, 45239), (68, 45248), (80, 45308), (91, 45341), (93, 45353), (107, 45419), (110, 45425), (116, 45464), (133, 45563), (134, 45566), (144, 45617),

Gene: GuuelaD\_60 Start: 43611, Stop: 44543, Start Num: 14

Candidate Starts for GuuelaD\_60:

(Start: 14 @43611 has 48 MA's), (Start: 41 @43809 has 3 MA's), (78, 44106), (91, 44145), (93, 44157), (96, 44163), (110, 44220), (115, 44262), (116, 44268), (133, 44367), (134, 44370), (138, 44388), (144, 44421), (145, 44427), (148, 44439), (158, 44475), (169, 44517),

Gene: Hafay\_62 Start: 43600, Stop: 44532, Start Num: 14

Candidate Starts for Hafay\_62:

(Start: 14 @43600 has 48 MA's), (Start: 41 @43798 has 3 MA's), (78, 44095), (91, 44134), (93, 44146), (96, 44152), (110, 44209), (115, 44251), (116, 44257), (133, 44356), (134, 44359), (138, 44377), (144, 44410), (145, 44416), (148, 44428), (158, 44464), (169, 44506),

Gene: Halena\_57 Start: 41362, Stop: 42294, Start Num: 14

Candidate Starts for Halena\_57:

(Start: 14 @41362 has 48 MA's), (Start: 41 @41560 has 3 MA's), (78, 41857), (80, 41863), (87, 41884), (91, 41896), (93, 41908), (107, 41962), (109, 41968), (115, 42013), (116, 42019), (118, 42031), (133, 42118), (134, 42121), (135, 42124), (138, 42139), (144, 42172), (147, 42184), (148, 42190), (158, 42226), (166, 42259), (169, 42268),

Gene: HanKaySha\_67 Start: 43651, Stop: 44619, Start Num: 6

Candidate Starts for HanKaySha\_67:

(Start: 6 @43651 has 135 MA's), (Start: 13 @43690 has 1 MA's), (Start: 16 @43696 has 2 MA's), (22, 43720), (23, 43738), (36, 43870), (39, 43885), (Start: 40 @43888 has 19 MA's), (Start: 41 @43891 has 3 MA's), (51, 44008), (53, 44026), (93, 44239), (135, 44455), (137, 44467), (139, 44473), (145, 44509), (158, 44557), (171, 44605),

Gene: Harella\_67 Start: 45197, Stop: 46165, Start Num: 6

Candidate Starts for Harella\_67:

(Start: 6 @45197 has 135 MA's), (Start: 13 @45236 has 1 MA's), (Start: 16 @45242 has 2 MA's), (22, 45266), (23, 45284), (36, 45416), (39, 45431), (Start: 40 @45434 has 19 MA's), (Start: 41 @45437 has 3 MA's), (51, 45554), (53, 45572), (93, 45785), (135, 46001), (137, 46013), (139, 46019), (145, 46055), (158, 46103), (171, 46151),

Gene: Henry\_65 Start: 43988, Stop: 44956, Start Num: 6

Candidate Starts for Henry\_65:

(Start: 6 @43988 has 135 MA's), (Start: 13 @44027 has 1 MA's), (Start: 16 @44033 has 2 MA's), (22, 44057), (23, 44075), (36, 44207), (39, 44222), (Start: 40 @44225 has 19 MA's), (Start: 41 @44228 has 3 MA's), (51, 44345), (53, 44363), (93, 44576), (135, 44792), (137, 44804), (139, 44810), (145, 44846), (158, 44894), (171, 44942),

Gene: Highbury\_66 Start: 43639, Stop: 44607, Start Num: 6

Candidate Starts for Highbury\_66:

(Start: 6 @43639 has 135 MA's), (Start: 13 @43678 has 1 MA's), (Start: 16 @43684 has 2 MA's), (22, 43708), (23, 43726), (36, 43858), (39, 43873), (Start: 40 @43876 has 19 MA's), (Start: 41 @43879 has 3 MA's), (51, 43996), (53, 44014), (93, 44227), (135, 44443), (137, 44455), (139, 44461), (145, 44497), (158, 44545), (171, 44593),

Gene: Holt\_72 Start: 44758, Stop: 45726, Start Num: 6

Candidate Starts for Holt\_72:

(Start: 6 @44758 has 135 MA's), (Start: 13 @44797 has 1 MA's), (Start: 16 @44803 has 2 MA's), (22, 44827), (23, 44845), (36, 44977), (39, 44992), (Start: 40 @44995 has 19 MA's), (Start: 41 @44998 has 3 MA's), (51, 45115), (53, 45133), (93, 45346), (135, 45562), (137, 45574), (139, 45580), (145, 45616), (158, 45664), (171, 45712),

Gene: Hoonter\_70 Start: 44344, Stop: 45312, Start Num: 6

Candidate Starts for Hoonter\_70:

(Start: 6 @44344 has 135 MA's), (Start: 13 @44383 has 1 MA's), (Start: 16 @44389 has 2 MA's), (22, 44413), (23, 44431), (36, 44563), (39, 44578), (Start: 40 @44581 has 19 MA's), (Start: 41 @44584 has 3 MA's), (51, 44701), (53, 44719), (93, 44932), (135, 45148), (137, 45160), (139, 45166), (145, 45202), (158, 45250), (171, 45298),

Gene: Hokey\_67 Start: 44183, Stop: 45151, Start Num: 6

Candidate Starts for Hokey\_67:

(Start: 6 @44183 has 135 MA's), (Start: 13 @44222 has 1 MA's), (Start: 16 @44228 has 2 MA's), (22, 44252), (23, 44270), (36, 44402), (39, 44417), (Start: 40 @44420 has 19 MA's), (Start: 41 @44423 has 3 MA's), (51, 44540), (53, 44558), (93, 44771), (135, 44987), (137, 44999), (139, 45005), (145, 45041), (158, 45089), (171, 45137),

Gene: HufflyPuff\_70 Start: 45016, Stop: 45984, Start Num: 6

Candidate Starts for HufflyPuff\_70:

(Start: 6 @45016 has 135 MA's), (Start: 13 @45055 has 1 MA's), (Start: 16 @45061 has 2 MA's), (22, 45085), (23, 45103), (36, 45235), (39, 45250), (Start: 40 @45253 has 19 MA's), (Start: 41 @45256 has 3 MA's), (51, 45373), (53, 45391), (93, 45604), (135, 45820), (137, 45832), (139, 45838), (145, 45874), (158, 45922), (171, 45970),

Gene: Huphleuff\_68 Start: 37188, Stop: 38141, Start Num: 15

Candidate Starts for Huphleuff\_68:

(Start: 15 @37188 has 21 MA's), (Start: 40 @37386 has 19 MA's), (50, 37479), (55, 37527), (58, 37557), (66, 37608), (72, 37641), (81, 37680), (102, 37770), (107, 37803), (108, 37806), (115, 37854), (118, 37872), (120, 37893), (133, 37959), (136, 37971), (160, 38079),

Gene: IHOP\_65 Start: 44112, Stop: 45080, Start Num: 6

Candidate Starts for IHOP\_65:

(Start: 6 @44112 has 135 MA's), (Start: 13 @44151 has 1 MA's), (Start: 16 @44157 has 2 MA's), (22, 44181), (23, 44199), (36, 44331), (39, 44346), (Start: 40 @44349 has 19 MA's), (Start: 41 @44352 has 3 MA's), (51, 44469), (53, 44487), (93, 44700), (135, 44916), (137, 44928), (139, 44934), (145, 44970), (158, 45018), (171, 45066),

Gene: IPhone7\_56 Start: 39492, Stop: 40352, Start Num: 25

Candidate Starts for IPhone7\_56:

(Start: 25 @39492 has 16 MA's), (Start: 37 @39606 has 5 MA's), (73, 39864), (79, 39900), (86, 39918), (88, 39924), (89, 39930), (94, 39951), (110, 40008), (115, 40047), (116, 40053), (122, 40104), (142, 40200), (154, 40251), (159, 40266), (176, 40341), (177, 40344),

Gene: Icee\_68 Start: 44011, Stop: 44979, Start Num: 6

Candidate Starts for Icee\_68:

(Start: 6 @44011 has 135 MA's), (Start: 13 @44050 has 1 MA's), (Start: 16 @44056 has 2 MA's), (22, 44080), (23, 44098), (36, 44230), (39, 44245), (Start: 40 @44248 has 19 MA's), (Start: 41 @44251 has 3 MA's), (51, 44368), (53, 44386), (93, 44599), (135, 44815), (137, 44827), (139, 44833), (145, 44869), (158, 44917), (171, 44965),

Gene: Inca\_64 Start: 42676, Stop: 43605, Start Num: 13

Candidate Starts for Inca\_64:

(Start: 6 @42637 has 135 MA's), (Start: 13 @42676 has 1 MA's), (Start: 16 @42682 has 2 MA's), (22, 42706), (23, 42724), (36, 42856), (39, 42871), (Start: 40 @42874 has 19 MA's), (Start: 41 @42877 has 3 MA's), (51, 42994), (53, 43012), (93, 43225), (135, 43441), (137, 43453), (139, 43459), (145, 43495), (158, 43543), (171, 43591),

Gene: Issmi\_32 Start: 25370, Stop: 26098, Start Num: 42

Candidate Starts for Issmi\_32:

(12, 25163), (Start: 38 @25352 has 1 MA's), (Start: 42 @25370 has 1 MA's), (61, 25541), (69, 25577), (70, 25589), (71, 25592), (83, 25640), (112, 25754), (116, 25775), (119, 25793), (120, 25808), (126, 25835), (144, 25928), (151, 25958), (156, 25976), (159, 25985), (181, 26081),

Gene: Itos\_60 Start: 42402, Stop: 43334, Start Num: 14

Candidate Starts for Itos\_60:

(Start: 14 @42402 has 48 MA's), (Start: 41 @42600 has 3 MA's), (78, 42897), (91, 42936), (93, 42948), (96, 42954), (110, 43011), (115, 43053), (116, 43059), (133, 43158), (134, 43161), (138, 43179), (144, 43212), (145, 43218), (148, 43230), (158, 43266), (169, 43308),

Gene: Izel\_57 Start: 39487, Stop: 40347, Start Num: 25

Candidate Starts for Izel\_57:

(Start: 25 @39487 has 16 MA's), (Start: 37 @39601 has 5 MA's), (73, 39859), (79, 39895), (86, 39913), (88, 39919), (89, 39925), (94, 39946), (110, 40003), (115, 40042), (116, 40048), (122, 40099), (142, 40195), (154, 40246), (159, 40261), (176, 40336), (177, 40339),

Gene: JeTaime\_67 Start: 44835, Stop: 45803, Start Num: 6

Candidate Starts for JeTaime\_67:

(Start: 6 @44835 has 135 MA's), (Start: 13 @44874 has 1 MA's), (Start: 16 @44880 has 2 MA's), (22, 44904), (23, 44922), (36, 45054), (39, 45069), (Start: 40 @45072 has 19 MA's), (Start: 41 @45075 has 3 MA's), (51, 45192), (53, 45210), (93, 45423), (135, 45639), (137, 45651), (139, 45657), (145, 45693), (158, 45741), (171, 45789),

Gene: Jobypre\_61 Start: 44014, Stop: 44751, Start Num: 40

Candidate Starts for Jobypre\_61:

(Start: 40 @44014 has 19 MA's), (Start: 41 @44017 has 3 MA's), (93, 44365), (104, 44401), (107, 44419), (109, 44425), (116, 44476), (118, 44488), (120, 44509), (134, 44578), (135, 44581), (138, 44596), (144, 44629), (145, 44635), (147, 44641), (158, 44683), (169, 44725), (171, 44731),

Gene: JoeDirt\_58 Start: 41762, Stop: 42694, Start Num: 14

Candidate Starts for JoeDirt\_58:

(1, 41522), (2, 41525), (4, 41597), (7, 41735), (Start: 14 @41762 has 48 MA's), (Start: 41 @41960 has 3 MA's), (78, 42257), (87, 42284), (91, 42296), (93, 42308), (107, 42362), (109, 42368), (115, 42413), (116, 42419), (118, 42431), (133, 42518), (134, 42521), (135, 42524), (138, 42539), (148, 42590), (158, 42626), (169, 42668),

Gene: JoieB\_67 Start: 37621, Stop: 38574, Start Num: 15

Candidate Starts for JoieB\_67:

(Start: 15 @37621 has 21 MA's), (Start: 40 @37819 has 19 MA's), (50, 37912), (55, 37960), (58, 37990), (66, 38041), (72, 38074), (81, 38113), (102, 38203), (107, 38236), (108, 38239), (115, 38287), (118, 38305), (120, 38326), (133, 38392), (136, 38404), (160, 38512),

Gene: Jubie\_60 Start: 44149, Stop: 44886, Start Num: 40

Candidate Starts for Jubie\_60:

(Start: 40 @44149 has 19 MA's), (Start: 41 @44152 has 3 MA's), (93, 44500), (104, 44536), (107, 44554), (109, 44560), (116, 44611), (118, 44623), (120, 44644), (134, 44713), (135, 44716), (138, 44731), (144, 44764), (145, 44770), (147, 44776), (158, 44818), (169, 44860), (171, 44866),

Gene: Kahlid\_61 Start: 43502, Stop: 44434, Start Num: 14

Candidate Starts for Kahlid\_61:

(Start: 14 @43502 has 48 MA's), (Start: 41 @43700 has 3 MA's), (78, 43997), (91, 44036), (93, 44048), (96, 44054), (110, 44111), (115, 44153), (116, 44159), (133, 44258), (134, 44261), (138, 44279), (144, 44312), (145, 44318), (148, 44330), (158, 44366), (169, 44408),

Gene: Kanye\_64 Start: 43693, Stop: 44661, Start Num: 6

Candidate Starts for Kanye\_64:

(Start: 6 @43693 has 135 MA's), (Start: 13 @43732 has 1 MA's), (Start: 16 @43738 has 2 MA's), (22, 43762), (23, 43780), (36, 43912), (39, 43927), (Start: 40 @43930 has 19 MA's), (Start: 41 @43933 has 3 MA's), (51, 44050), (53, 44068), (93, 44281), (135, 44497), (137, 44509), (139, 44515), (145, 44551), (158, 44599), (171, 44647),

Gene: Keelan\_83 Start: 44373, Stop: 45143, Start Num: 29

Candidate Starts for Keelan\_83:

(Start: 29 @44373 has 6 MA's), (31, 44388), (34, 44409), (35, 44418), (39, 44439), (43, 44457), (46, 44472), (49, 44538), (52, 44562), (77, 44718), (80, 44733), (81, 44736), (87, 44754), (91, 44766), (93, 44778), (107, 44844), (118, 44901), (133, 44988), (144, 45042), (148, 45060), (156, 45090), (161, 45108), (165, 45123),

Gene: Kimchi\_71 Start: 44347, Stop: 45315, Start Num: 6

Candidate Starts for Kimchi\_71:

(Start: 6 @44347 has 135 MA's), (Start: 13 @44386 has 1 MA's), (Start: 16 @44392 has 2 MA's), (22, 44416), (23, 44434), (36, 44566), (39, 44581), (Start: 40 @44584 has 19 MA's), (Start: 41 @44587 has 3 MA's), (51, 44704), (53, 44722), (93, 44935), (135, 45151), (137, 45163), (139, 45169), (145, 45205), (158, 45253), (171, 45301),

Gene: Kingsolomon\_60 Start: 44021, Stop: 44758, Start Num: 40

Candidate Starts for Kingsolomon\_60:

(Start: 40 @44021 has 19 MA's), (Start: 41 @44024 has 3 MA's), (93, 44372), (104, 44408), (107, 44426), (109, 44432), (116, 44483), (118, 44495), (120, 44516), (134, 44585), (135, 44588), (138, 44603), (144, 44636), (145, 44642), (147, 44648), (158, 44690), (169, 44732), (171, 44738),

Gene: KirDoubleO7\_59 Start: 44052, Stop: 44789, Start Num: 40

Candidate Starts for KirDoubleO7\_59:

(Start: 40 @44052 has 19 MA's), (Start: 41 @44055 has 3 MA's), (93, 44403), (109, 44463), (110, 44466), (116, 44514), (118, 44526), (120, 44547), (128, 44583), (134, 44616), (135, 44619), (138, 44634), (144, 44667), (145, 44673), (147, 44679), (158, 44721), (169, 44763), (171, 44769),

Gene: KleverKiS\_57 Start: 39468, Stop: 40328, Start Num: 25

Candidate Starts for KleverKiS\_57:

(Start: 25 @39468 has 16 MA's), (Start: 37 @39582 has 5 MA's), (73, 39840), (79, 39876), (86, 39894), (88, 39900), (89, 39906), (94, 39927), (110, 39984), (115, 40023), (116, 40029), (122, 40080), (142, 40176), (154, 40227), (159, 40242), (176, 40317), (177, 40320),

Gene: Kostya\_67 Start: 44211, Stop: 45179, Start Num: 6

Candidate Starts for Kostya\_67:

(Start: 6 @44211 has 135 MA's), (Start: 13 @44250 has 1 MA's), (Start: 16 @44256 has 2 MA's), (22, 44280), (23, 44298), (36, 44430), (39, 44445), (Start: 40 @44448 has 19 MA's), (Start: 41 @44451 has 3 MA's), (51, 44568), (53, 44586), (93, 44799), (135, 45015), (137, 45027), (139, 45033), (145, 45069), (158, 45117), (171, 45165),

Gene: Kropertea\_58 Start: 42306, Stop: 43238, Start Num: 16

Candidate Starts for Kropertea\_58:

(Start: 16 @42306 has 2 MA's), (Start: 41 @42504 has 3 MA's), (72, 42771), (78, 42801), (80, 42807), (93, 42852), (109, 42912), (110, 42915), (115, 42957), (116, 42963), (118, 42975), (134, 43065), (138, 43083), (144, 43116), (145, 43122), (148, 43134), (158, 43170), (169, 43212),

Gene: Krypton555\_62 Start: 44246, Stop: 44983, Start Num: 40

Candidate Starts for Krypton555\_62:

(Start: 40 @44246 has 19 MA's), (Start: 41 @44249 has 3 MA's), (93, 44597), (96, 44603), (104, 44633), (107, 44651), (109, 44657), (116, 44708), (118, 44720), (120, 44741), (134, 44810), (135, 44813), (138, 44828), (144, 44861), (145, 44867), (147, 44873), (158, 44915), (169, 44957), (171, 44963),

Gene: Kudrefre\_58 Start: 39045, Stop: 39977, Start Num: 17

Candidate Starts for Kudrefre\_58:

(Start: 16 @39042 has 2 MA's), (Start: 17 @39045 has 7 MA's), (28, 39162), (Start: 30 @39183 has 2 MA's), (32, 39201), (39, 39237), (Start: 40 @39240 has 19 MA's), (49, 39348), (63, 39465), (64, 39477), (74, 39519), (78, 39540), (85, 39561), (92, 39588), (96, 39597), (98, 39612), (101, 39621), (105, 39648), (114, 39699), (115, 39708), (116, 39714), (125, 39771), (128, 39783), (130, 39795), (132, 39807), (133, 39813), (134, 39816), (135, 39819), (143, 39864), (148, 39885), (169, 39963), (170, 39966),

Gene: Kumao\_48 Start: 38609, Stop: 39574, Start Num: 6

Candidate Starts for Kumao\_48:

(Start: 6 @38609 has 135 MA's), (Start: 13 @38648 has 1 MA's), (Start: 17 @38657 has 7 MA's), (36, 38822), (Start: 41 @38843 has 3 MA's), (56, 39020), (58, 39038), (60, 39056), (62, 39065), (93, 39194), (104, 39230), (108, 39251), (130, 39386), (133, 39404), (140, 39443), (148, 39476), (152, 39491), (158, 39512), (167, 39548), (171, 39560),

Gene: LeBron\_58 Start: 41365, Stop: 42297, Start Num: 14

Candidate Starts for LeBron\_58:

(Start: 14 @41365 has 48 MA's), (Start: 41 @41563 has 3 MA's), (78, 41860), (80, 41866), (87, 41887), (91, 41899), (93, 41911), (107, 41965), (109, 41971), (115, 42016), (116, 42022), (118, 42034), (133, 42121), (134, 42124), (135, 42127), (138, 42142), (144, 42175), (147, 42187), (148, 42193), (158, 42229), (166, 42262), (169, 42271),

Gene: Lewan\_62 Start: 43556, Stop: 44488, Start Num: 14

Candidate Starts for Lewan\_62:

(Start: 14 @43556 has 48 MA's), (Start: 41 @43754 has 3 MA's), (78, 44051), (91, 44090), (93, 44102), (96, 44108), (110, 44165), (115, 44207), (116, 44213), (133, 44312), (134, 44315), (138, 44333), (144, 44366), (145, 44372), (148, 44384), (158, 44420), (169, 44462),

Gene: LilDestine\_61 Start: 43529, Stop: 44461, Start Num: 14

Candidate Starts for LilDestine\_61:

(Start: 14 @43529 has 48 MA's), (Start: 41 @43727 has 3 MA's), (78, 44024), (91, 44063), (93, 44075), (96, 44081), (110, 44138), (115, 44180), (116, 44186), (133, 44285), (134, 44288), (138, 44306), (144, 44339), (145, 44345), (148, 44357), (158, 44393), (169, 44435),

Gene: LilJank\_56 Start: 39139, Stop: 40014, Start Num: 17

Candidate Starts for LilJank\_56:

(Start: 17 @39139 has 7 MA's), (28, 39247), (33, 39289), (Start: 40 @39325 has 19 MA's), (63, 39550), (72, 39595), (78, 39625), (80, 39631), (81, 39634), (87, 39652), (96, 39682), (98, 39697), (111, 39712), (115, 39745), (121, 39787), (130, 39832), (132, 39844), (133, 39850), (134, 39853), (135, 39856), (145, 39910), (147, 39916), (148, 39922), (155, 39949), (158, 39958),

Gene: Lilac\_69 Start: 43968, Stop: 44936, Start Num: 6

Candidate Starts for Lilac\_69:

(Start: 6 @43968 has 135 MA's), (Start: 13 @44007 has 1 MA's), (Start: 16 @44013 has 2 MA's), (22, 44037), (23, 44055), (36, 44187), (39, 44202), (Start: 40 @44205 has 19 MA's), (Start: 41 @44208 has 3 MA's), (51, 44325), (53, 44343), (93, 44556), (135, 44772), (137, 44784), (139, 44790), (145, 44826), (158, 44874), (171, 44922),

Gene: Lilbit\_64 Start: 37384, Stop: 38337, Start Num: 15

Candidate Starts for Lilbit\_64:

(Start: 15 @37384 has 21 MA's), (Start: 40 @37582 has 19 MA's), (50, 37675), (55, 37723), (58, 37753), (66, 37804), (72, 37837), (81, 37876), (102, 37966), (107, 37999), (108, 38002), (115, 38050), (118, 38068), (120, 38089), (133, 38155), (136, 38167), (160, 38275),

Gene: LilhomieP\_55 Start: 39492, Stop: 40352, Start Num: 25

Candidate Starts for LilhomieP\_55:

(Start: 25 @39492 has 16 MA's), (Start: 37 @39606 has 5 MA's), (73, 39864), (79, 39900), (86, 39918), (88, 39924), (89, 39930), (94, 39951), (110, 40008), (115, 40047), (116, 40053), (122, 40104), (142, 40200), (154, 40251), (159, 40266), (176, 40341), (177, 40344),

Gene: Lilizi\_68 Start: 43681, Stop: 44649, Start Num: 6

Candidate Starts for Lilizi\_68:

(Start: 6 @43681 has 135 MA's), (Start: 13 @43720 has 1 MA's), (Start: 16 @43726 has 2 MA's), (22, 43750), (23, 43768), (36, 43900), (39, 43915), (Start: 40 @43918 has 19 MA's), (Start: 41 @43921 has 3 MA's), (51, 44038), (53, 44056), (93, 44269), (135, 44485), (137, 44497), (139, 44503), (145, 44539), (158, 44587), (171, 44635),

Gene: Lilpickle\_66 Start: 43566, Stop: 44534, Start Num: 6

Candidate Starts for Lilpickle\_66:

(Start: 6 @43566 has 135 MA's), (Start: 13 @43605 has 1 MA's), (Start: 16 @43611 has 2 MA's), (22, 43635), (23, 43653), (36, 43785), (39, 43800), (Start: 40 @43803 has 19 MA's), (Start: 41 @43806 has 3 MA's), (51, 43923), (53, 43941), (93, 44154), (135, 44370), (137, 44382), (139, 44388), (145, 44424), (158, 44472), (171, 44520),

Gene: LittleLaf\_66 Start: 37113, Stop: 38066, Start Num: 15

Candidate Starts for LittleLaf\_66:

(Start: 15 @37113 has 21 MA's), (Start: 40 @37311 has 19 MA's), (50, 37404), (55, 37452), (58, 37482), (66, 37533), (72, 37566), (81, 37605), (102, 37695), (107, 37728), (108, 37731), (115, 37779), (118, 37797), (120, 37818), (133, 37884), (136, 37896), (160, 38004),

Gene: Liveloughbron\_69 Start: 45144, Stop: 46112, Start Num: 6

Candidate Starts for Liveloughbron\_69:

(Start: 6 @45144 has 135 MA's), (Start: 13 @45183 has 1 MA's), (Start: 16 @45189 has 2 MA's), (22, 45213), (23, 45231), (36, 45363), (39, 45378), (Start: 40 @45381 has 19 MA's), (Start: 41 @45384 has 3 MA's), (51, 45501), (53, 45519), (93, 45732), (135, 45948), (137, 45960), (139, 45966), (145, 46002), (158, 46050), (171, 46098),

Gene: LiyuLake\_60 Start: 44068, Stop: 44805, Start Num: 40

Candidate Starts for LiyuLake\_60:

(Start: 40 @44068 has 19 MA's), (Start: 41 @44071 has 3 MA's), (93, 44419), (109, 44479), (110, 44482), (116, 44530), (118, 44542), (120, 44563), (128, 44599), (134, 44632), (135, 44635), (138, 44650), (144, 44683), (145, 44689), (147, 44695), (158, 44737), (169, 44779), (171, 44785),

Gene: Loadrie\_60 Start: 43584, Stop: 44516, Start Num: 14

Candidate Starts for Loadrie\_60:

(Start: 14 @43584 has 48 MA's), (Start: 41 @43782 has 3 MA's), (78, 44079), (91, 44118), (93, 44130), (96, 44136), (110, 44193), (115, 44235), (116, 44241), (133, 44340), (134, 44343), (138, 44361), (144, 44394), (145, 44400), (148, 44412), (158, 44448), (169, 44490),

Gene: Lolly9\_60 Start: 43839, Stop: 44576, Start Num: 40

Candidate Starts for Lolly9\_60:

(Start: 40 @43839 has 19 MA's), (93, 44190), (96, 44196), (104, 44226), (107, 44244), (109, 44250), (110, 44253), (116, 44301), (118, 44313), (120, 44334), (134, 44403), (135, 44406), (138, 44421), (144, 44454), (145, 44460), (150, 44484), (158, 44508), (169, 44550), (171, 44556),

Gene: Lumos\_62 Start: 44011, Stop: 44748, Start Num: 40

Candidate Starts for Lumos\_62:

(Start: 40 @44011 has 19 MA's), (Start: 41 @44014 has 3 MA's), (93, 44362), (104, 44398), (107, 44416), (109, 44422), (116, 44473), (118, 44485), (120, 44506), (134, 44575), (135, 44578), (138, 44593), (144, 44626), (145, 44632), (147, 44638), (158, 44680), (169, 44722), (171, 44728),

Gene: Lynnae\_62 Start: 43527, Stop: 44459, Start Num: 14

Candidate Starts for Lynnae\_62:

(Start: 14 @43527 has 48 MA's), (Start: 41 @43725 has 3 MA's), (78, 44022), (91, 44061), (93, 44073), (96, 44079), (110, 44136), (115, 44178), (116, 44184), (133, 44283), (134, 44286), (138, 44304), (144, 44337), (145, 44343), (148, 44355), (158, 44391), (169, 44433),

Gene: MAckerman\_58 Start: 41355, Stop: 42287, Start Num: 14

Candidate Starts for MAckerman\_58:

(Start: 14 @41355 has 48 MA's), (Start: 41 @41553 has 3 MA's), (78, 41850), (80, 41856), (87, 41877), (91, 41889), (93, 41901), (107, 41955), (109, 41961), (115, 42006), (116, 42012), (118, 42024), (133, 42111), (134, 42114), (135, 42117), (138, 42132), (144, 42165), (147, 42177), (148, 42183), (158, 42219), (166, 42252), (169, 42261),

Gene: MISSy\_68 Start: 44069, Stop: 45037, Start Num: 6

Candidate Starts for MISSy\_68:

(Start: 6 @44069 has 135 MA's), (Start: 13 @44108 has 1 MA's), (Start: 16 @44114 has 2 MA's), (22, 44138), (23, 44156), (36, 44288), (39, 44303), (Start: 40 @44306 has 19 MA's), (Start: 41 @44309 has 3 MA's), (51, 44426), (53, 44444), (93, 44657), (135, 44873), (137, 44885), (139, 44891), (145, 44927), (158, 44975), (171, 45023),

Gene: MPhalcon\_68 Start: 44062, Stop: 45030, Start Num: 6

Candidate Starts for MPhalcon\_68:

(Start: 6 @44062 has 135 MA's), (Start: 13 @44101 has 1 MA's), (Start: 16 @44107 has 2 MA's), (22, 44131), (23, 44149), (36, 44281), (39, 44296), (Start: 40 @44299 has 19 MA's), (Start: 41 @44302 has 3 MA's), (51, 44419), (53, 44437), (93, 44650), (135, 44866), (137, 44878), (139, 44884), (145, 44920), (158, 44968), (171, 45016),

Gene: MadamMonkfish\_67 Start: 43290, Stop: 44258, Start Num: 6

Candidate Starts for MadamMonkfish\_67:

(Start: 6 @43290 has 135 MA's), (Start: 13 @43329 has 1 MA's), (Start: 16 @43335 has 2 MA's), (22, 43359), (23, 43377), (36, 43509), (39, 43524), (Start: 40 @43527 has 19 MA's), (Start: 41 @43530 has 3 MA's), (51, 43647), (53, 43665), (93, 43878), (135, 44094), (137, 44106), (139, 44112), (145, 44148), (158, 44196), (171, 44244),

Gene: Manda\_67 Start: 44571, Stop: 45539, Start Num: 6

Candidate Starts for Manda\_67:

(Start: 6 @44571 has 135 MA's), (Start: 13 @44610 has 1 MA's), (Start: 16 @44616 has 2 MA's), (22, 44640), (23, 44658), (36, 44790), (39, 44805), (Start: 40 @44808 has 19 MA's), (Start: 41 @44811 has 3 MA's), (51, 44928), (53, 44946), (93, 45159), (135, 45375), (137, 45387), (139, 45393), (145, 45429), (158, 45477), (171, 45525),

Gene: Marshmallow\_65 Start: 44839, Stop: 45807, Start Num: 6

Candidate Starts for Marshmallow\_65:

(Start: 6 @44839 has 135 MA's), (Start: 13 @44878 has 1 MA's), (Start: 16 @44884 has 2 MA's), (22, 44908), (23, 44926), (36, 45058), (39, 45073), (Start: 40 @45076 has 19 MA's), (Start: 41 @45079 has 3 MA's), (51, 45196), (53, 45214), (93, 45427), (135, 45643), (137, 45655), (139, 45661), (145, 45697), (158, 45745), (171, 45793),

Gene: Marvin\_62 Start: 36871, Stop: 37824, Start Num: 15

Candidate Starts for Marvin\_62:

(Start: 15 @36871 has 21 MA's), (Start: 40 @37069 has 19 MA's), (50, 37162), (55, 37210), (58, 37240), (66, 37291), (72, 37324), (81, 37363), (102, 37453), (107, 37486), (108, 37489), (115, 37537), (118, 37555), (120, 37576), (133, 37642), (136, 37654), (160, 37762),

Gene: MaryV\_67 Start: 44513, Stop: 45418, Start Num: 21

Candidate Starts for MaryV\_67:

(Start: 21 @44513 has 6 MA's), (36, 44666), (Start: 38 @44675 has 1 MA's), (39, 44681), (45, 44711), (48, 44723), (51, 44774), (63, 44882), (68, 44903), (70, 44918), (82, 44966), (99, 45032), (103, 45041), (113, 45098), (142, 45266), (146, 45284), (162, 45350), (165, 45356), (168, 45371), (176, 45407),

Gene: Maxxinista\_69 Start: 43941, Stop: 44909, Start Num: 6

Candidate Starts for Maxxinista\_69:

(Start: 6 @43941 has 135 MA's), (Start: 13 @43980 has 1 MA's), (Start: 16 @43986 has 2 MA's), (22, 44010), (23, 44028), (36, 44160), (39, 44175), (Start: 40 @44178 has 19 MA's), (Start: 41 @44181 has 3 MA's), (51, 44298), (53, 44316), (93, 44529), (135, 44745), (137, 44757), (139, 44763), (145, 44799), (158, 44847), (171, 44895),

Gene: Miley16\_61 Start: 43496, Stop: 44428, Start Num: 14

Candidate Starts for Miley16\_61:

(Start: 14 @43496 has 48 MA's), (Start: 41 @43694 has 3 MA's), (78, 43991), (91, 44030), (93, 44042), (96, 44048), (110, 44105), (115, 44147), (116, 44153), (133, 44252), (134, 44255), (138, 44273), (144, 44306), (145, 44312), (148, 44324), (158, 44360), (169, 44402),

Gene: Mindy\_66 Start: 43154, Stop: 44122, Start Num: 6

Candidate Starts for Mindy\_66:

(Start: 6 @43154 has 135 MA's), (Start: 13 @43193 has 1 MA's), (Start: 16 @43199 has 2 MA's), (22, 43223), (23, 43241), (36, 43373), (39, 43388), (Start: 40 @43391 has 19 MA's), (Start: 41 @43394 has 3 MA's), (51, 43511), (53, 43529), (93, 43742), (135, 43958), (137, 43970), (139, 43976), (145, 44012), (158, 44060), (171, 44108),

Gene: MiniLon\_64 Start: 43840, Stop: 44577, Start Num: 40

Candidate Starts for MiniLon\_64:

(Start: 40 @43840 has 19 MA's), (93, 44191), (96, 44197), (104, 44227), (107, 44245), (109, 44251), (110, 44254), (116, 44302), (118, 44314), (120, 44335), (134, 44404), (135, 44407), (138, 44422), (144, 44455), (145, 44461), (150, 44485), (158, 44509), (169, 44551), (171, 44557),

Gene: MiniMac\_64 Start: 43838, Stop: 44575, Start Num: 40

Candidate Starts for MiniMac\_64:

(Start: 40 @43838 has 19 MA's), (93, 44189), (96, 44195), (104, 44225), (107, 44243), (109, 44249), (116, 44300), (118, 44312), (120, 44333), (134, 44402), (135, 44405), (138, 44420), (144, 44453), (145, 44459), (150, 44483), (158, 44507), (169, 44549), (171, 44555),

Gene: Miniwave\_62 Start: 43607, Stop: 44575, Start Num: 6

Candidate Starts for Miniwave\_62:

(Start: 6 @43607 has 135 MA's), (Start: 13 @43646 has 1 MA's), (Start: 16 @43652 has 2 MA's), (22, 43676), (23, 43694), (36, 43826), (39, 43841), (Start: 40 @43844 has 19 MA's), (Start: 41 @43847 has 3 MA's), (51, 43964), (53, 43982), (93, 44195), (135, 44411), (137, 44423), (139, 44429), (145, 44465), (158, 44513), (171, 44561),

Gene: Misfit\_68 Start: 45081, Stop: 46049, Start Num: 6

Candidate Starts for Misfit\_68:

(Start: 6 @45081 has 135 MA's), (Start: 13 @45120 has 1 MA's), (Start: 16 @45126 has 2 MA's), (22, 45150), (23, 45168), (36, 45300), (39, 45315), (Start: 40 @45318 has 19 MA's), (Start: 41 @45321 has 3 MA's), (51, 45438), (53, 45456), (93, 45669), (135, 45885), (137, 45897), (139, 45903), (145, 45939), (158, 45987), (171, 46035),

Gene: MkaliMitinis3\_62 Start: 43568, Stop: 44500, Start Num: 14

Candidate Starts for MkaliMitinis3\_62:

(Start: 14 @43568 has 48 MA's), (Start: 41 @43766 has 3 MA's), (78, 44063), (91, 44102), (93, 44114), (96, 44120), (110, 44177), (115, 44219), (116, 44225), (133, 44324), (134, 44327), (138, 44345), (144, 44378), (145, 44384), (148, 44396), (158, 44432), (169, 44474),

Gene: Moldemort\_70 Start: 44163, Stop: 45131, Start Num: 6

Candidate Starts for Moldemort\_70:

(Start: 6 @44163 has 135 MA's), (Start: 13 @44202 has 1 MA's), (Start: 16 @44208 has 2 MA's), (22, 44232), (23, 44250), (36, 44382), (39, 44397), (Start: 40 @44400 has 19 MA's), (Start: 41 @44403 has 3 MA's), (51, 44520), (53, 44538), (93, 44751), (135, 44967), (137, 44979), (139, 44985), (145, 45021), (158, 45069), (171, 45117),

Gene: MollyToe\_62 Start: 42911, Stop: 43879, Start Num: 6

Candidate Starts for MollyToe\_62:

(Start: 6 @42911 has 135 MA's), (Start: 13 @42950 has 1 MA's), (Start: 16 @42956 has 2 MA's), (22, 42980), (23, 42998), (36, 43130), (39, 43145), (Start: 40 @43148 has 19 MA's), (Start: 41 @43151 has 3 MA's), (51, 43268), (53, 43286), (93, 43499), (135, 43715), (137, 43727), (139, 43733), (145, 43769), (158, 43817), (171, 43865),

Gene: Moostard\_60 Start: 44017, Stop: 44754, Start Num: 40

Candidate Starts for Moostard\_60:

(Start: 40 @44017 has 19 MA's), (Start: 41 @44020 has 3 MA's), (93, 44368), (104, 44404), (107, 44422), (109, 44428), (116, 44479), (118, 44491), (120, 44512), (134, 44581), (135, 44584), (138, 44599), (144, 44632), (145, 44638), (147, 44644), (158, 44686), (169, 44728), (171, 44734),

Gene: MosMoris\_63 Start: 36804, Stop: 37757, Start Num: 15

Candidate Starts for MosMoris\_63:

(Start: 15 @36804 has 21 MA's), (Start: 40 @37002 has 19 MA's), (50, 37095), (55, 37143), (58, 37173), (66, 37224), (72, 37257), (81, 37296), (102, 37386), (107, 37419), (108, 37422), (115, 37470), (118, 37488), (120, 37509), (133, 37575), (136, 37587), (160, 37695),

Gene: Mosby\_63 Start: 43364, Stop: 44332, Start Num: 6

Candidate Starts for Mosby\_63:

(Start: 6 @43364 has 135 MA's), (Start: 13 @43403 has 1 MA's), (Start: 16 @43409 has 2 MA's), (22, 43433), (23, 43451), (36, 43583), (39, 43598), (Start: 40 @43601 has 19 MA's), (Start: 41 @43604 has 3 MA's), (51, 43721), (53, 43739), (93, 43952), (135, 44168), (137, 44180), (139, 44186), (145, 44222), (158, 44270), (171, 44318),

Gene: MrMagoo\_65 Start: 42057, Stop: 42803, Start Num: 37

Candidate Starts for MrMagoo\_65:

(Start: 37 @42057 has 5 MA's), (84, 42363), (86, 42369), (88, 42375), (94, 42402), (110, 42459), (115, 42498), (116, 42504), (123, 42558), (124, 42561), (142, 42651), (148, 42678), (172, 42765), (176, 42792),

Gene: MsGreen\_61 Start: 44014, Stop: 44751, Start Num: 40

Candidate Starts for MsGreen\_61:

(Start: 40 @44014 has 19 MA's), (Start: 41 @44017 has 3 MA's), (93, 44365), (104, 44401), (107, 44419), (109, 44425), (116, 44476), (118, 44488), (120, 44509), (134, 44578), (135, 44581), (138, 44596), (144, 44629), (145, 44635), (147, 44641), (158, 44683), (169, 44725), (171, 44731),

Gene: Murica\_70 Start: 45016, Stop: 45984, Start Num: 6

Candidate Starts for Murica\_70:

(Start: 6 @45016 has 135 MA's), (Start: 13 @45055 has 1 MA's), (Start: 16 @45061 has 2 MA's), (22, 45085), (23, 45103), (36, 45235), (39, 45250), (Start: 40 @45253 has 19 MA's), (Start: 41 @45256 has 3 MA's), (51, 45373), (53, 45391), (93, 45604), (135, 45820), (137, 45832), (139, 45838), (145, 45874), (158, 45922), (171, 45970),

Gene: Murphy\_67 Start: 44453, Stop: 45421, Start Num: 6

Candidate Starts for Murphy\_67:

(Start: 6 @44453 has 135 MA's), (Start: 13 @44492 has 1 MA's), (Start: 16 @44498 has 2 MA's), (22, 44522), (23, 44540), (36, 44672), (39, 44687), (Start: 40 @44690 has 19 MA's), (Start: 41 @44693 has 3 MA's), (51, 44810), (53, 44828), (93, 45041), (135, 45257), (137, 45269), (139, 45275), (145, 45311), (158, 45359), (171, 45407),

Gene: Myrale\_67 Start: 44704, Stop: 45672, Start Num: 6

Candidate Starts for Myrale\_67:

(Start: 6 @44704 has 135 MA's), (Start: 13 @44743 has 1 MA's), (Start: 16 @44749 has 2 MA's), (22, 44773), (23, 44791), (36, 44923), (39, 44938), (Start: 40 @44941 has 19 MA's), (Start: 41 @44944 has 3 MA's), (51, 45061), (53, 45079), (93, 45292), (135, 45508), (137, 45520), (139, 45526), (145, 45562), (158, 45610), (171, 45658),

Gene: Nala\_69 Start: 44574, Stop: 45542, Start Num: 6

Candidate Starts for Nala\_69:

(Start: 6 @44574 has 135 MA's), (Start: 13 @44613 has 1 MA's), (Start: 16 @44619 has 2 MA's), (22, 44643), (23, 44661), (36, 44793), (39, 44808), (Start: 40 @44811 has 19 MA's), (Start: 41 @44814 has 3 MA's), (51, 44931), (53, 44949), (93, 45162), (135, 45378), (137, 45390), (139, 45396), (145, 45432), (158, 45480), (171, 45528),

Gene: Nanosmite\_61 Start: 41136, Stop: 41996, Start Num: 25

Candidate Starts for Nanosmite\_61:

(Start: 25 @41136 has 16 MA's), (Start: 37 @41250 has 5 MA's), (73, 41508), (79, 41544), (86, 41562), (88, 41568), (110, 41652), (115, 41691), (123, 41751), (142, 41844), (154, 41895), (176, 41985), (177, 41988),

Gene: NelitzaMV\_65 Start: 43653, Stop: 44621, Start Num: 6

Candidate Starts for NelitzaMV\_65:

(Start: 6 @43653 has 135 MA's), (Start: 13 @43692 has 1 MA's), (Start: 16 @43698 has 2 MA's), (22, 43722), (23, 43740), (36, 43872), (39, 43887), (Start: 40 @43890 has 19 MA's), (Start: 41 @43893 has 3 MA's), (51, 44010), (53, 44028), (93, 44241), (135, 44457), (137, 44469), (139, 44475), (145, 44511), (158, 44559), (171, 44607),

Gene: Netyap\_62 Start: 43497, Stop: 44429, Start Num: 14

Candidate Starts for Netyap\_62:

(Start: 14 @43497 has 48 MA's), (Start: 41 @43695 has 3 MA's), (78, 43992), (91, 44031), (93, 44043), (96, 44049), (110, 44106), (115, 44148), (116, 44154), (133, 44253), (134, 44256), (138, 44274), (144, 44307), (145, 44313), (148, 44325), (158, 44361), (169, 44403),

Gene: Neville\_58 Start: 38801, Stop: 39676, Start Num: 17

Candidate Starts for Neville\_58:

(Start: 17 @38801 has 7 MA's), (28, 38909), (33, 38951), (Start: 40 @38987 has 19 MA's), (63, 39212), (67, 39227), (74, 39266), (78, 39287), (85, 39308), (96, 39344), (98, 39359), (111, 39374), (115, 39407), (120, 39446), (121, 39449), (130, 39494), (132, 39506), (133, 39512), (134, 39515), (135, 39518), (145, 39572), (147, 39578), (148, 39584), (155, 39611), (158, 39620),

Gene: Nicholas\_60 Start: 44021, Stop: 44758, Start Num: 40

Candidate Starts for Nicholas\_60:

(Start: 40 @44021 has 19 MA's), (Start: 41 @44024 has 3 MA's), (93, 44372), (104, 44408), (107, 44426), (109, 44432), (116, 44483), (118, 44495), (120, 44516), (134, 44585), (135, 44588), (138, 44603), (144, 44636), (145, 44642), (147, 44648), (158, 44690), (169, 44732), (171, 44738),

Gene: Nicholasp3\_61 Start: 43532, Stop: 44464, Start Num: 14

Candidate Starts for Nicholasp3\_61:

(Start: 14 @43532 has 48 MA's), (Start: 41 @43730 has 3 MA's), (78, 44027), (91, 44066), (93, 44078), (96, 44084), (110, 44141), (115, 44183), (116, 44189), (133, 44288), (134, 44291), (138, 44309), (144, 44342), (145, 44348), (148, 44360), (158, 44396), (169, 44438),

Gene: Nimrod\_68 Start: 45271, Stop: 46239, Start Num: 6

Candidate Starts for Nimrod\_68:

(Start: 6 @45271 has 135 MA's), (Start: 13 @45310 has 1 MA's), (Start: 16 @45316 has 2 MA's), (22, 45340), (23, 45358), (36, 45490), (39, 45505), (Start: 40 @45508 has 19 MA's), (Start: 41 @45511 has 3 MA's), (51, 45628), (53, 45646), (93, 45859), (135, 46075), (137, 46087), (139, 46093), (145, 46129), (158, 46177), (171, 46225),

Gene: NoSleep\_68 Start: 43911, Stop: 44879, Start Num: 6

Candidate Starts for NoSleep\_68:

(Start: 6 @43911 has 135 MA's), (Start: 13 @43950 has 1 MA's), (Start: 16 @43956 has 2 MA's), (22, 43980), (23, 43998), (36, 44130), (39, 44145), (Start: 40 @44148 has 19 MA's), (Start: 41 @44151 has 3 MA's), (51, 44268), (53, 44286), (93, 44499), (135, 44715), (137, 44727), (139, 44733), (145, 44769), (158, 44817), (171, 44865),

Gene: NonchalantPear\_67 Start: 43761, Stop: 44729, Start Num: 6

Candidate Starts for NonchalantPear\_67:

(Start: 6 @43761 has 135 MA's), (Start: 13 @43800 has 1 MA's), (Start: 16 @43806 has 2 MA's), (22, 43830), (23, 43848), (36, 43980), (39, 43995), (Start: 40 @43998 has 19 MA's), (Start: 41 @44001 has 3 MA's), (51, 44118), (53, 44136), (93, 44349), (135, 44565), (137, 44577), (139, 44583), (145, 44619), (158, 44667), (171, 44715),

Gene: Octobien14\_58 Start: 39326, Stop: 40258, Start Num: 17

Candidate Starts for Octobien14\_58:

(Start: 16 @39323 has 2 MA's), (Start: 17 @39326 has 7 MA's), (28, 39443), (32, 39482), (Start: 40 @39521 has 19 MA's), (49, 39629), (51, 39641), (58, 39716), (63, 39746), (64, 39758), (76, 39809), (78, 39821), (92, 39869), (96, 39878), (98, 39893), (101, 39902), (105, 39929), (114, 39980), (115, 39989), (116, 39995), (128, 40064), (130, 40076), (132, 40088), (133, 40094), (134, 40097), (135, 40100), (169, 40244),

Gene: OhShagHennessy\_57 Start: 40797, Stop: 41738, Start Num: 14

Candidate Starts for OhShagHennessy\_57:

(Start: 6 @40755 has 135 MA's), (Start: 14 @40797 has 48 MA's), (20, 40818), (Start: 41 @41004 has 3 MA's), (78, 41301), (80, 41307), (87, 41328), (91, 41340), (93, 41352), (107, 41406), (109, 41412), (115, 41457), (116, 41463), (118, 41475), (133, 41562), (134, 41565), (135, 41568), (138, 41583), (148, 41634), (158, 41670), (166, 41703), (169, 41712),

Gene: OrionPax\_66 Start: 43659, Stop: 44627, Start Num: 6

Candidate Starts for OrionPax\_66:

(Start: 6 @43659 has 135 MA's), (Start: 13 @43698 has 1 MA's), (Start: 16 @43704 has 2 MA's), (22, 43728), (23, 43746), (36, 43878), (39, 43893), (Start: 40 @43896 has 19 MA's), (Start: 41 @43899 has 3 MA's), (51, 44016), (53, 44034), (93, 44247), (135, 44463), (137, 44475), (139, 44481), (145, 44517), (158, 44565), (171, 44613),

Gene: OverPar\_62 Start: 43584, Stop: 44516, Start Num: 14

Candidate Starts for OverPar\_62:

(Start: 14 @43584 has 48 MA's), (Start: 41 @43782 has 3 MA's), (78, 44079), (91, 44118), (93, 44130), (96, 44136), (110, 44193), (115, 44235), (116, 44241), (133, 44340), (134, 44343), (138, 44361), (144, 44394), (145, 44400), (148, 44412), (158, 44448), (169, 44490),

Gene: PYPDinur\_57 Start: 42223, Stop: 43155, Start Num: 14

Candidate Starts for PYPDinur\_57:

(Start: 14 @42223 has 48 MA's), (Start: 41 @42421 has 3 MA's), (78, 42718), (80, 42724), (85, 42739), (93, 42769), (96, 42775), (109, 42829), (110, 42832), (115, 42874), (116, 42880), (118, 42892), (134, 42982), (138, 43000), (144, 43033), (145, 43039), (148, 43051), (158, 43087), (169, 43129),

Gene: PaddyBaddy\_67 Start: 43665, Stop: 44633, Start Num: 6

Candidate Starts for PaddyBaddy\_67:

(Start: 6 @43665 has 135 MA's), (Start: 13 @43704 has 1 MA's), (Start: 16 @43710 has 2 MA's), (22, 43734), (23, 43752), (36, 43884), (39, 43899), (Start: 40 @43902 has 19 MA's), (Start: 41 @43905 has 3 MA's), (51, 44022), (53, 44040), (93, 44253), (135, 44469), (137, 44481), (139, 44487), (145, 44523), (158, 44571), (171, 44619),

Gene: Palpatine\_69 Start: 45043, Stop: 46011, Start Num: 6

Candidate Starts for Palpatine\_69:

(Start: 6 @45043 has 135 MA's), (Start: 13 @45082 has 1 MA's), (Start: 16 @45088 has 2 MA's), (22, 45112), (23, 45130), (36, 45262), (39, 45277), (Start: 40 @45280 has 19 MA's), (Start: 41 @45283 has 3 MA's), (51, 45400), (53, 45418), (93, 45631), (135, 45847), (137, 45859), (139, 45865), (145, 45901), (158, 45949), (171, 45997),

Gene: Paperbeatsrock\_66 Start: 44285, Stop: 45253, Start Num: 6

Candidate Starts for Paperbeatsrock\_66:

(Start: 6 @44285 has 135 MA's), (Start: 13 @44324 has 1 MA's), (Start: 16 @44330 has 2 MA's), (22, 44354), (23, 44372), (36, 44504), (39, 44519), (Start: 40 @44522 has 19 MA's), (Start: 41 @44525 has 3 MA's), (51, 44642), (53, 44660), (93, 44873), (135, 45089), (137, 45101), (139, 45107), (145, 45143), (158, 45191), (171, 45239),

Gene: Pat3\_65 Start: 42808, Stop: 43776, Start Num: 6

Candidate Starts for Pat3\_65:

(Start: 6 @42808 has 135 MA's), (Start: 13 @42847 has 1 MA's), (Start: 16 @42853 has 2 MA's), (22, 42877), (23, 42895), (36, 43027), (39, 43042), (Start: 40 @43045 has 19 MA's), (Start: 41 @43048 has 3 MA's), (51, 43165), (53, 43183), (93, 43396), (135, 43612), (137, 43624), (139, 43630), (145, 43666), (158, 43714), (171, 43762),

Gene: PegLeg\_56 Start: 39491, Stop: 40351, Start Num: 25

Candidate Starts for PegLeg\_56:

(Start: 25 @39491 has 16 MA's), (Start: 37 @39605 has 5 MA's), (73, 39863), (79, 39899), (86, 39917), (88, 39923), (89, 39929), (94, 39950), (110, 40007), (115, 40046), (116, 40052), (122, 40103), (142, 40199), (154, 40250), (159, 40265), (176, 40340), (177, 40343),

Gene: Petra64142\_71 Start: 45507, Stop: 46475, Start Num: 6

Candidate Starts for Petra64142\_71:

(Start: 6 @45507 has 135 MA's), (Start: 13 @45546 has 1 MA's), (Start: 16 @45552 has 2 MA's), (22, 45576), (23, 45594), (36, 45726), (39, 45741), (Start: 40 @45744 has 19 MA's), (Start: 41 @45747 has 3 MA's), (51, 45864), (53, 45882), (93, 46095), (135, 46311), (137, 46323), (139, 46329), (145, 46365), (158, 46413), (171, 46461),

Gene: Phaja\_65 Start: 44111, Stop: 45079, Start Num: 6

Candidate Starts for Phaja\_65:

(Start: 6 @44111 has 135 MA's), (Start: 13 @44150 has 1 MA's), (Start: 16 @44156 has 2 MA's), (22, 44180), (23, 44198), (36, 44330), (39, 44345), (Start: 40 @44348 has 19 MA's), (Start: 41 @44351 has 3 MA's), (51, 44468), (53, 44486), (93, 44699), (135, 44915), (137, 44927), (139, 44933), (145, 44969), (158, 45017), (171, 45065),

Gene: Pharsalus\_64 Start: 44085, Stop: 45053, Start Num: 6

Candidate Starts for Pharsalus\_64:

(Start: 6 @44085 has 135 MA's), (Start: 13 @44124 has 1 MA's), (Start: 16 @44130 has 2 MA's), (22, 44154), (23, 44172), (36, 44304), (39, 44319), (Start: 40 @44322 has 19 MA's), (Start: 41 @44325 has 3 MA's), (51, 44442), (53, 44460), (93, 44673), (135, 44889), (137, 44901), (139, 44907), (145, 44943), (158, 44991), (171, 45039),

Gene: PhatBacter\_71 Start: 45060, Stop: 46028, Start Num: 6

Candidate Starts for PhatBacter\_71:

(Start: 6 @45060 has 135 MA's), (Start: 13 @45099 has 1 MA's), (Start: 16 @45105 has 2 MA's), (22, 45129), (23, 45147), (36, 45279), (39, 45294), (Start: 40 @45297 has 19 MA's), (Start: 41 @45300 has 3 MA's), (51, 45417), (53, 45435), (93, 45648), (135, 45864), (137, 45876), (138, 45879), (139, 45882), (145, 45918), (158, 45966), (171, 46014),

Gene: Phaux\_69 Start: 45055, Stop: 46023, Start Num: 6

Candidate Starts for Phaux\_69:

(Start: 6 @45055 has 135 MA's), (Start: 13 @45094 has 1 MA's), (Start: 16 @45100 has 2 MA's), (22, 45124), (23, 45142), (36, 45274), (39, 45289), (Start: 40 @45292 has 19 MA's), (Start: 41 @45295 has 3 MA's), (51, 45412), (53, 45430), (93, 45643), (135, 45859), (137, 45871), (139, 45877), (145, 45913), (158, 45961), (171, 46009),

Gene: Phrux\_64 Start: 43651, Stop: 44619, Start Num: 6

Candidate Starts for Phrux\_64:

(Start: 6 @43651 has 135 MA's), (Start: 13 @43690 has 1 MA's), (Start: 16 @43696 has 2 MA's), (22, 43720), (23, 43738), (36, 43870), (39, 43885), (Start: 40 @43888 has 19 MA's), (Start: 41 @43891 has 3 MA's), (51, 44008), (53, 44026), (93, 44239), (135, 44455), (137, 44467), (139, 44473), (145, 44509),

(158, 44557), (171, 44605),

Gene: Poise\_66 Start: 36700, Stop: 37653, Start Num: 15

Candidate Starts for Poise\_66:

(Start: 15 @36700 has 21 MA's), (Start: 40 @36898 has 19 MA's), (50, 36991), (55, 37039), (58, 37069), (66, 37120), (72, 37153), (81, 37192), (102, 37282), (107, 37315), (108, 37318), (115, 37366), (118, 37384), (120, 37405), (133, 37471), (136, 37483), (160, 37591),

Gene: Policronamos\_70 Start: 45055, Stop: 46023, Start Num: 6

Candidate Starts for Policronamos\_70:

(Start: 6 @45055 has 135 MA's), (Start: 13 @45094 has 1 MA's), (Start: 16 @45100 has 2 MA's), (22, 45124), (23, 45142), (36, 45274), (39, 45289), (Start: 40 @45292 has 19 MA's), (Start: 41 @45295 has 3 MA's), (51, 45412), (53, 45430), (93, 45643), (135, 45859), (137, 45871), (139, 45877), (145, 45913), (158, 45961), (171, 46009),

Gene: Poochiewood\_59 Start: 41770, Stop: 42702, Start Num: 14

Candidate Starts for Poochiewood\_59:

(Start: 14 @41770 has 48 MA's), (Start: 41 @41968 has 3 MA's), (78, 42265), (80, 42271), (87, 42292), (91, 42304), (93, 42316), (96, 42322), (107, 42370), (109, 42376), (115, 42421), (116, 42427), (118, 42439), (133, 42526), (134, 42529), (135, 42532), (138, 42547), (148, 42598), (158, 42634), (169, 42676),

Gene: Porky\_66 Start: 43481, Stop: 44449, Start Num: 6

Candidate Starts for Porky\_66:

(Start: 6 @43481 has 135 MA's), (Start: 13 @43520 has 1 MA's), (Start: 16 @43526 has 2 MA's), (22, 43550), (23, 43568), (36, 43700), (39, 43715), (Start: 40 @43718 has 19 MA's), (Start: 41 @43721 has 3 MA's), (51, 43838), (53, 43856), (93, 44069), (135, 44285), (137, 44297), (139, 44303), (145, 44339), (158, 44387), (171, 44435),

Gene: Pringar\_65 Start: 36989, Stop: 37942, Start Num: 15

Candidate Starts for Pringar\_65:

(3, 36821), (Start: 15 @36989 has 21 MA's), (Start: 40 @37187 has 19 MA's), (50, 37280), (55, 37328), (58, 37358), (66, 37409), (72, 37442), (81, 37481), (102, 37571), (107, 37604), (108, 37607), (115, 37655), (118, 37673), (120, 37694), (133, 37760), (136, 37772), (160, 37880),

Gene: Ptowny\_64 Start: 42947, Stop: 43915, Start Num: 6

Candidate Starts for Ptowny\_64:

(Start: 6 @42947 has 135 MA's), (Start: 13 @42986 has 1 MA's), (Start: 16 @42992 has 2 MA's), (22, 43016), (23, 43034), (36, 43166), (39, 43181), (Start: 40 @43184 has 19 MA's), (Start: 41 @43187 has 3 MA's), (51, 43304), (53, 43322), (93, 43535), (135, 43751), (137, 43763), (139, 43769), (145, 43805), (158, 43853), (171, 43901),

Gene: Pumpkin\_70 Start: 44709, Stop: 45677, Start Num: 6

Candidate Starts for Pumpkin\_70:

(Start: 6 @44709 has 135 MA's), (Start: 13 @44748 has 1 MA's), (Start: 16 @44754 has 2 MA's), (22, 44778), (23, 44796), (36, 44928), (39, 44943), (Start: 40 @44946 has 19 MA's), (Start: 41 @44949 has 3 MA's), (51, 45066), (53, 45084), (93, 45297), (135, 45513), (137, 45525), (139, 45531), (145, 45567), (158, 45615), (171, 45663),

Gene: Quallification\_68 Start: 44693, Stop: 45661, Start Num: 6

Candidate Starts for Quallification\_68:

(Start: 6 @44693 has 135 MA's), (Start: 13 @44732 has 1 MA's), (Start: 16 @44738 has 2 MA's), (22, 44762), (23, 44780), (36, 44912), (39, 44927), (Start: 40 @44930 has 19 MA's), (Start: 41 @44933 has

3 MA's), (51, 45050), (53, 45068), (93, 45281), (135, 45497), (137, 45509), (139, 45515), (145, 45551), (158, 45599), (171, 45647),

Gene: Quby\_59 Start: 42121, Stop: 43053, Start Num: 14

Candidate Starts for Quby\_59:

(Start: 14 @42121 has 48 MA's), (Start: 41 @42319 has 3 MA's), (72, 42586), (78, 42616), (80, 42622), (85, 42637), (93, 42667), (96, 42673), (109, 42727), (110, 42730), (115, 42772), (116, 42778), (118, 42790), (134, 42880), (138, 42898), (144, 42931), (145, 42937), (148, 42949), (158, 42985), (169, 43027),

Gene: Rabbitrun\_58 Start: 39022, Stop: 39897, Start Num: 17

Candidate Starts for Rabbitrun\_58:

(5, 38893), (Start: 17 @39022 has 7 MA's), (28, 39130), (33, 39172), (Start: 40 @39208 has 19 MA's), (63, 39433), (67, 39448), (78, 39508), (80, 39514), (81, 39517), (87, 39535), (96, 39565), (98, 39580), (111, 39595), (115, 39628), (121, 39670), (130, 39715), (132, 39727), (133, 39733), (134, 39736), (135, 39739), (145, 39793), (147, 39799), (148, 39805), (155, 39832), (158, 39841),

Gene: Raela\_66 Start: 37257, Stop: 38210, Start Num: 15

Candidate Starts for Raela\_66:

(Start: 15 @37257 has 21 MA's), (Start: 40 @37455 has 19 MA's), (50, 37548), (55, 37596), (58, 37626), (66, 37677), (72, 37710), (81, 37749), (102, 37839), (107, 37872), (108, 37875), (115, 37923), (118, 37941), (120, 37962), (133, 38028), (136, 38040), (160, 38148),

Gene: Rakim\_68 Start: 44162, Stop: 45130, Start Num: 6

Candidate Starts for Rakim\_68:

(Start: 6 @44162 has 135 MA's), (Start: 13 @44201 has 1 MA's), (Start: 16 @44207 has 2 MA's), (22, 44231), (23, 44249), (36, 44381), (39, 44396), (Start: 40 @44399 has 19 MA's), (Start: 41 @44402 has 3 MA's), (51, 44519), (53, 44537), (93, 44750), (135, 44966), (137, 44978), (139, 44984), (145, 45020), (158, 45068), (171, 45116),

Gene: Red305\_61 Start: 44014, Stop: 44751, Start Num: 40

Candidate Starts for Red305\_61:

(Start: 40 @44014 has 19 MA's), (Start: 41 @44017 has 3 MA's), (93, 44365), (104, 44401), (107, 44419), (109, 44425), (116, 44476), (118, 44488), (120, 44509), (134, 44578), (135, 44581), (138, 44596), (144, 44629), (145, 44635), (147, 44641), (158, 44683), (169, 44725), (171, 44731),

Gene: RedRaider77\_65 Start: 36645, Stop: 37598, Start Num: 15

Candidate Starts for RedRaider77\_65:

(Start: 15 @36645 has 21 MA's), (Start: 40 @36843 has 19 MA's), (50, 36936), (55, 36984), (58, 37014), (66, 37065), (72, 37098), (81, 37137), (102, 37227), (107, 37260), (108, 37263), (115, 37311), (118, 37329), (120, 37350), (133, 37416), (136, 37428), (160, 37536),

Gene: Reindeer\_58 Start: 40686, Stop: 41546, Start Num: 25

Candidate Starts for Reindeer\_58:

(Start: 25 @40686 has 16 MA's), (Start: 37 @40800 has 5 MA's), (44, 40830), (59, 40980), (69, 41034), (72, 41055), (88, 41118), (110, 41202), (115, 41241), (116, 41247), (122, 41298), (142, 41394), (176, 41535),

Gene: Rey\_63 Start: 41702, Stop: 42604, Start Num: 21

Candidate Starts for Rey\_63:

(Start: 21 @41702 has 6 MA's), (Start: 25 @41744 has 16 MA's), (27, 41774), (Start: 37 @41858 has 5 MA's), (39, 41867), (79, 42152), (86, 42170), (88, 42176), (106, 42251), (110, 42260), (115, 42299), (142, 42452), (154, 42503), (174, 42575),

Gene: Rimmer\_68 Start: 44401, Stop: 45369, Start Num: 6

Candidate Starts for Rimmer\_68:

(Start: 6 @44401 has 135 MA's), (Start: 13 @44440 has 1 MA's), (Start: 16 @44446 has 2 MA's), (22, 44470), (23, 44488), (36, 44620), (39, 44635), (Start: 40 @44638 has 19 MA's), (Start: 41 @44641 has 3 MA's), (51, 44758), (53, 44776), (93, 44989), (135, 45205), (137, 45217), (139, 45223), (145, 45259), (158, 45307), (171, 45355),

Gene: RiverMonster\_67 Start: 44229, Stop: 45197, Start Num: 6

Candidate Starts for RiverMonster\_67:

(Start: 6 @44229 has 135 MA's), (Start: 13 @44268 has 1 MA's), (Start: 16 @44274 has 2 MA's), (22, 44298), (23, 44316), (36, 44448), (39, 44463), (Start: 40 @44466 has 19 MA's), (Start: 41 @44469 has 3 MA's), (51, 44586), (53, 44604), (93, 44817), (135, 45033), (137, 45045), (139, 45051), (145, 45087), (158, 45135), (171, 45183),

Gene: Ronaldo\_86 Start: 44517, Stop: 45287, Start Num: 29

Candidate Starts for Ronaldo\_86:

(Start: 29 @44517 has 6 MA's), (35, 44562), (39, 44583), (47, 44622), (48, 44625), (52, 44706), (63, 44796), (64, 44808), (68, 44817), (80, 44877), (91, 44910), (93, 44922), (107, 44988), (110, 44994), (133, 45132), (134, 45135), (144, 45186),

Gene: Rose5\_59 Start: 41782, Stop: 42714, Start Num: 14

Candidate Starts for Rose5\_59:

(Start: 14 @41782 has 48 MA's), (Start: 41 @41980 has 3 MA's), (78, 42277), (80, 42283), (87, 42304), (91, 42316), (93, 42328), (96, 42334), (107, 42382), (109, 42388), (115, 42433), (116, 42439), (118, 42451), (133, 42538), (134, 42541), (135, 42544), (138, 42559), (148, 42610), (158, 42646), (169, 42688),

Gene: RoseMarie\_61 Start: 42948, Stop: 43808, Start Num: 25

Candidate Starts for RoseMarie\_61:

(Start: 25 @42948 has 16 MA's), (Start: 37 @43062 has 5 MA's), (73, 43320), (79, 43356), (86, 43374), (88, 43380), (89, 43386), (110, 43464), (115, 43503), (116, 43509), (118, 43521), (122, 43560), (123, 43563), (142, 43656), (157, 43716), (176, 43797), (177, 43800),

Gene: Rossetti\_62 Start: 44078, Stop: 45010, Start Num: 14

Candidate Starts for Rossetti\_62:

(Start: 14 @44078 has 48 MA's), (Start: 41 @44276 has 3 MA's), (78, 44573), (91, 44612), (93, 44624), (110, 44687), (115, 44729), (116, 44735), (133, 44834), (134, 44837), (138, 44855), (148, 44906), (158, 44942), (169, 44984),

Gene: Rumpelstiltskin\_60 Start: 42925, Stop: 43857, Start Num: 14

Candidate Starts for Rumpelstiltskin\_60:

(Start: 14 @42925 has 48 MA's), (Start: 41 @43123 has 3 MA's), (78, 43420), (91, 43459), (93, 43471), (96, 43477), (110, 43534), (115, 43576), (116, 43582), (133, 43681), (134, 43684), (138, 43702), (144, 43735), (145, 43741), (148, 43753), (158, 43789), (169, 43831),

Gene: Saints25\_66 Start: 43639, Stop: 44607, Start Num: 6

Candidate Starts for Saints25\_66:

(Start: 6 @43639 has 135 MA's), (Start: 13 @43678 has 1 MA's), (Start: 16 @43684 has 2 MA's), (22, 43708), (23, 43726), (36, 43858), (39, 43873), (Start: 40 @43876 has 19 MA's), (Start: 41 @43879 has 3 MA's), (51, 43996), (53, 44014), (93, 44227), (135, 44443), (137, 44455), (139, 44461), (145, 44497), (158, 44545), (171, 44593),

Gene: Samty\_61 Start: 44022, Stop: 44759, Start Num: 40

Candidate Starts for Samty\_61:

(Start: 40 @44022 has 19 MA's), (Start: 41 @44025 has 3 MA's), (93, 44373), (104, 44409), (107, 44427), (109, 44433), (116, 44484), (118, 44496), (120, 44517), (134, 44586), (135, 44589), (138, 44604), (144, 44637), (145, 44643), (147, 44649), (158, 44691), (169, 44733), (171, 44739),

Gene: Sarshaun\_61 Start: 43592, Stop: 44524, Start Num: 14

Candidate Starts for Sarshaun\_61:

(Start: 14 @43592 has 48 MA's), (Start: 41 @43790 has 3 MA's), (78, 44087), (91, 44126), (93, 44138), (96, 44144), (110, 44201), (115, 44243), (116, 44249), (133, 44348), (134, 44351), (138, 44369), (144, 44402), (145, 44408), (148, 44420), (158, 44456), (169, 44498),

Gene: Sassay\_62 Start: 42326, Stop: 43294, Start Num: 6

Candidate Starts for Sassay\_62:

(Start: 6 @42326 has 135 MA's), (Start: 13 @42365 has 1 MA's), (Start: 16 @42371 has 2 MA's), (22, 42395), (23, 42413), (36, 42545), (39, 42560), (Start: 40 @42563 has 19 MA's), (Start: 41 @42566 has 3 MA's), (51, 42683), (53, 42701), (93, 42914), (135, 43130), (137, 43142), (139, 43148), (145, 43184), (158, 43232), (171, 43280),

Gene: Schmidt\_40 Start: 28005, Stop: 28883, Start Num: 15

Candidate Starts for Schmidt\_40:

(Start: 15 @28005 has 21 MA's), (19, 28020), (Start: 30 @28146 has 2 MA's), (Start: 37 @28191 has 5 MA's), (Start: 38 @28194 has 1 MA's), (39, 28200), (Start: 40 @28203 has 19 MA's), (48, 28242), (49, 28284), (51, 28296), (59, 28374), (72, 28446), (75, 28461), (83, 28488), (85, 28497), (92, 28515), (116, 28605), (118, 28617), (120, 28638), (136, 28716), (137, 28722), (166, 28845), (175, 28875),

Gene: Sephiroth\_57 Start: 39214, Stop: 40146, Start Num: 17

Candidate Starts for Sephiroth\_57:

(Start: 16 @39211 has 2 MA's), (Start: 17 @39214 has 7 MA's), (28, 39331), (Start: 30 @39352 has 2 MA's), (32, 39370), (39, 39406), (Start: 40 @39409 has 19 MA's), (49, 39517), (63, 39634), (64, 39646), (74, 39688), (78, 39709), (85, 39730), (92, 39757), (96, 39766), (98, 39781), (101, 39790), (105, 39817), (114, 39868), (115, 39877), (116, 39883), (125, 39940), (130, 39964), (132, 39976), (133, 39982), (134, 39985), (135, 39988), (143, 40033), (148, 40054), (169, 40132), (170, 40135),

Gene: ShamWow\_67 Start: 44548, Stop: 45516, Start Num: 6

Candidate Starts for ShamWow\_67:

(Start: 6 @44548 has 135 MA's), (Start: 13 @44587 has 1 MA's), (Start: 16 @44593 has 2 MA's), (22, 44617), (23, 44635), (36, 44767), (39, 44782), (Start: 40 @44785 has 19 MA's), (Start: 41 @44788 has 3 MA's), (51, 44905), (53, 44923), (93, 45136), (135, 45352), (137, 45364), (139, 45370), (145, 45406), (158, 45454), (171, 45502),

Gene: Sheng711\_59 Start: 42200, Stop: 43132, Start Num: 14

Candidate Starts for Sheng711\_59:

(Start: 14 @42200 has 48 MA's), (Start: 41 @42398 has 3 MA's), (72, 42665), (78, 42695), (80, 42701), (85, 42716), (93, 42746), (96, 42752), (109, 42806), (110, 42809), (115, 42851), (116, 42857), (118, 42869), (134, 42959), (138, 42977), (144, 43010), (145, 43016), (148, 43028), (158, 43064), (169, 43106),

Gene: ShereKhan\_66 Start: 44617, Stop: 45585, Start Num: 6

Candidate Starts for ShereKhan\_66:

(Start: 6 @44617 has 135 MA's), (Start: 13 @44656 has 1 MA's), (Start: 16 @44662 has 2 MA's), (22, 44686), (23, 44704), (36, 44836), (39, 44851), (Start: 40 @44854 has 19 MA's), (Start: 41 @44857 has 3 MA's), (51, 44974), (53, 44992), (93, 45205), (135, 45421), (137, 45433), (139, 45439), (145, 45475),

(158, 45523), (171, 45571),

Gene: Silverleaf\_59 Start: 41517, Stop: 42449, Start Num: 14

Candidate Starts for Silverleaf\_59:

(Start: 14 @41517 has 48 MA's), (Start: 41 @41715 has 3 MA's), (78, 42012), (80, 42018), (87, 42039), (91, 42051), (93, 42063), (96, 42069), (107, 42117), (109, 42123), (115, 42168), (116, 42174), (118, 42186), (134, 42276), (135, 42279), (138, 42294), (148, 42345), (158, 42381), (169, 42423),

Gene: Simpliphy\_66 Start: 43629, Stop: 44597, Start Num: 6

Candidate Starts for Simpliphy\_66:

(Start: 6 @43629 has 135 MA's), (Start: 13 @43668 has 1 MA's), (Start: 16 @43674 has 2 MA's), (22, 43698), (23, 43716), (36, 43848), (39, 43863), (Start: 40 @43866 has 19 MA's), (Start: 41 @43869 has 3 MA's), (51, 43986), (53, 44004), (93, 44217), (135, 44433), (137, 44445), (139, 44451), (145, 44487), (158, 44535), (171, 44583),

Gene: SirDuracell\_66 Start: 42900, Stop: 43868, Start Num: 6

Candidate Starts for SirDuracell\_66:

(Start: 6 @42900 has 135 MA's), (Start: 13 @42939 has 1 MA's), (Start: 16 @42945 has 2 MA's), (22, 42969), (23, 42987), (36, 43119), (39, 43134), (Start: 40 @43137 has 19 MA's), (Start: 41 @43140 has 3 MA's), (51, 43257), (53, 43275), (93, 43488), (135, 43704), (137, 43716), (139, 43722), (145, 43758), (158, 43806), (171, 43854),

Gene: Skinny\_58 Start: 39921, Stop: 40781, Start Num: 25

Candidate Starts for Skinny\_58:

(Start: 25 @39921 has 16 MA's), (Start: 37 @40035 has 5 MA's), (73, 40293), (79, 40329), (86, 40347), (88, 40353), (89, 40359), (94, 40380), (110, 40437), (115, 40476), (116, 40482), (122, 40533), (142, 40629), (154, 40680), (159, 40695), (176, 40770), (177, 40773),

Gene: SlimJimmy\_55 Start: 39476, Stop: 40336, Start Num: 25

Candidate Starts for SlimJimmy\_55:

(Start: 25 @39476 has 16 MA's), (Start: 37 @39590 has 5 MA's), (73, 39848), (79, 39884), (86, 39902), (88, 39908), (89, 39914), (94, 39935), (110, 39992), (115, 40031), (116, 40037), (122, 40088), (142, 40184), (154, 40235), (159, 40250), (176, 40325), (177, 40328),

Gene: Snenia\_60 Start: 44015, Stop: 44752, Start Num: 40

Candidate Starts for Snenia\_60:

(Start: 40 @44015 has 19 MA's), (Start: 41 @44018 has 3 MA's), (93, 44366), (104, 44402), (107, 44420), (109, 44426), (116, 44477), (118, 44489), (120, 44510), (134, 44579), (135, 44582), (138, 44597), (144, 44630), (145, 44636), (147, 44642), (158, 44684), (169, 44726), (171, 44732),

Gene: SoJulia\_63 Start: 43761, Stop: 44693, Start Num: 14

Candidate Starts for SoJulia\_63:

(Start: 14 @43761 has 48 MA's), (Start: 41 @43959 has 3 MA's), (78, 44256), (91, 44295), (93, 44307), (96, 44313), (110, 44370), (115, 44412), (116, 44418), (133, 44517), (134, 44520), (138, 44538), (144, 44571), (145, 44577), (148, 44589), (158, 44625), (169, 44667),

Gene: Soap141\_61 Start: 43790, Stop: 44524, Start Num: 41

Candidate Starts for Soap141\_61:

(Start: 14 @43592 has 48 MA's), (Start: 41 @43790 has 3 MA's), (78, 44087), (91, 44126), (93, 44138), (96, 44144), (110, 44201), (115, 44243), (116, 44249), (133, 44348), (134, 44351), (138, 44369), (144, 44402), (145, 44408), (148, 44420), (158, 44456), (169, 44498),

Gene: SophKB\_64 Start: 43304, Stop: 44272, Start Num: 6

Candidate Starts for SophKB\_64:

(Start: 6 @43304 has 135 MA's), (Start: 13 @43343 has 1 MA's), (Start: 16 @43349 has 2 MA's), (22, 43373), (23, 43391), (36, 43523), (39, 43538), (Start: 40 @43541 has 19 MA's), (Start: 41 @43544 has 3 MA's), (51, 43661), (53, 43679), (93, 43892), (135, 44108), (137, 44120), (139, 44126), (145, 44162), (158, 44210), (171, 44258),

Gene: Sotrice96\_68 Start: 44307, Stop: 45275, Start Num: 6

Candidate Starts for Sotrice96\_68:

(Start: 6 @44307 has 135 MA's), (Start: 13 @44346 has 1 MA's), (Start: 16 @44352 has 2 MA's), (22, 44376), (23, 44394), (36, 44526), (39, 44541), (Start: 40 @44544 has 19 MA's), (Start: 41 @44547 has 3 MA's), (51, 44664), (53, 44682), (93, 44895), (135, 45111), (137, 45123), (139, 45129), (145, 45165), (158, 45213), (171, 45261),

Gene: Stank\_70 Start: 44562, Stop: 45530, Start Num: 6

Candidate Starts for Stank\_70:

(Start: 6 @44562 has 135 MA's), (Start: 13 @44601 has 1 MA's), (Start: 16 @44607 has 2 MA's), (22, 44631), (23, 44649), (36, 44781), (39, 44796), (Start: 40 @44799 has 19 MA's), (Start: 41 @44802 has 3 MA's), (51, 44919), (53, 44937), (93, 45150), (135, 45366), (137, 45378), (139, 45384), (145, 45420), (158, 45468), (171, 45516),

Gene: Stark\_68 Start: 44112, Stop: 45080, Start Num: 6

Candidate Starts for Stark\_68:

(Start: 6 @44112 has 135 MA's), (Start: 13 @44151 has 1 MA's), (Start: 16 @44157 has 2 MA's), (22, 44181), (23, 44199), (36, 44331), (39, 44346), (Start: 40 @44349 has 19 MA's), (Start: 41 @44352 has 3 MA's), (51, 44469), (53, 44487), (93, 44700), (135, 44916), (137, 44928), (139, 44934), (145, 44970), (158, 45018), (171, 45066),

Gene: StellaBean\_65 Start: 43872, Stop: 44840, Start Num: 6

Candidate Starts for StellaBean\_65:

(Start: 6 @43872 has 135 MA's), (Start: 13 @43911 has 1 MA's), (Start: 16 @43917 has 2 MA's), (22, 43941), (23, 43959), (36, 44091), (39, 44106), (Start: 40 @44109 has 19 MA's), (Start: 41 @44112 has 3 MA's), (51, 44229), (53, 44247), (93, 44460), (135, 44676), (137, 44688), (139, 44694), (145, 44730), (158, 44778), (171, 44826),

Gene: StolenFromERC\_70 Start: 44344, Stop: 45312, Start Num: 6

Candidate Starts for StolenFromERC\_70:

(Start: 6 @44344 has 135 MA's), (Start: 13 @44383 has 1 MA's), (Start: 16 @44389 has 2 MA's), (22, 44413), (23, 44431), (36, 44563), (39, 44578), (Start: 40 @44581 has 19 MA's), (Start: 41 @44584 has 3 MA's), (51, 44701), (53, 44719), (93, 44932), (135, 45148), (137, 45160), (139, 45166), (145, 45202), (158, 45250), (171, 45298),

Gene: StormChicken\_69 Start: 45008, Stop: 45976, Start Num: 6

Candidate Starts for StormChicken\_69:

(Start: 6 @45008 has 135 MA's), (Start: 13 @45047 has 1 MA's), (Start: 16 @45053 has 2 MA's), (22, 45077), (23, 45095), (36, 45227), (39, 45242), (Start: 40 @45245 has 19 MA's), (Start: 41 @45248 has 3 MA's), (51, 45365), (53, 45383), (93, 45596), (135, 45812), (137, 45824), (139, 45830), (145, 45866), (158, 45914), (171, 45962),

Gene: Syleon\_59 Start: 39155, Stop: 40087, Start Num: 17

Candidate Starts for Syleon\_59:

(Start: 16 @39152 has 2 MA's), (Start: 17 @39155 has 7 MA's), (28, 39272), (Start: 30 @39293 has 2 MA's), (32, 39311), (39, 39347), (Start: 40 @39350 has 19 MA's), (49, 39458), (63, 39575), (64, 39587), (74, 39629), (78, 39650), (85, 39671), (92, 39698), (96, 39707), (98, 39722), (101, 39731),

(105, 39758), (114, 39809), (115, 39818), (116, 39824), (125, 39881), (128, 39893), (130, 39905), (132, 39917), (133, 39923), (134, 39926), (135, 39929), (143, 39974), (148, 39995), (169, 40073), (170, 40076),

Gene: TBrady12\_70 Start: 44046, Stop: 45014, Start Num: 6

Candidate Starts for TBrady12\_70:

(Start: 6 @44046 has 135 MA's), (Start: 13 @44085 has 1 MA's), (Start: 16 @44091 has 2 MA's), (22, 44115), (23, 44133), (36, 44265), (39, 44280), (Start: 40 @44283 has 19 MA's), (Start: 41 @44286 has 3 MA's), (51, 44403), (53, 44421), (93, 44634), (135, 44850), (137, 44862), (139, 44868), (145, 44904), (158, 44952), (171, 45000),

Gene: Tarkin\_66 Start: 44294, Stop: 45262, Start Num: 6

Candidate Starts for Tarkin\_66:

(Start: 6 @44294 has 135 MA's), (Start: 13 @44333 has 1 MA's), (Start: 16 @44339 has 2 MA's), (22, 44363), (23, 44381), (36, 44513), (39, 44528), (Start: 40 @44531 has 19 MA's), (Start: 41 @44534 has 3 MA's), (51, 44651), (53, 44669), (93, 44882), (135, 45098), (137, 45110), (139, 45116), (145, 45152), (158, 45200), (171, 45248),

Gene: TeamEdward\_69 Start: 45002, Stop: 45970, Start Num: 6

Candidate Starts for TeamEdward\_69:

(Start: 6 @45002 has 135 MA's), (Start: 13 @45041 has 1 MA's), (Start: 16 @45047 has 2 MA's), (22, 45071), (23, 45089), (36, 45221), (39, 45236), (Start: 40 @45239 has 19 MA's), (Start: 41 @45242 has 3 MA's), (51, 45359), (53, 45377), (93, 45590), (135, 45806), (137, 45818), (139, 45824), (145, 45860), (158, 45908), (171, 45956),

Gene: TeardropMSU\_63 Start: 43294, Stop: 44262, Start Num: 6

Candidate Starts for TeardropMSU\_63:

(Start: 6 @43294 has 135 MA's), (Start: 13 @43333 has 1 MA's), (Start: 16 @43339 has 2 MA's), (22, 43363), (23, 43381), (36, 43513), (39, 43528), (Start: 40 @43531 has 19 MA's), (Start: 41 @43534 has 3 MA's), (51, 43651), (53, 43669), (93, 43882), (135, 44098), (137, 44110), (139, 44116), (145, 44152), (158, 44200), (171, 44248),

Gene: Teaspoon\_68 Start: 44188, Stop: 45156, Start Num: 6

Candidate Starts for Teaspoon\_68:

(Start: 6 @44188 has 135 MA's), (Start: 13 @44227 has 1 MA's), (Start: 16 @44233 has 2 MA's), (22, 44257), (23, 44275), (36, 44407), (39, 44422), (Start: 40 @44425 has 19 MA's), (Start: 41 @44428 has 3 MA's), (51, 44545), (53, 44563), (93, 44776), (135, 44992), (137, 45004), (139, 45010), (145, 45046), (158, 45094), (171, 45142),

Gene: Terminus\_70 Start: 45081, Stop: 46049, Start Num: 6

Candidate Starts for Terminus\_70:

(Start: 6 @45081 has 135 MA's), (Start: 13 @45120 has 1 MA's), (Start: 16 @45126 has 2 MA's), (22, 45150), (23, 45168), (36, 45300), (39, 45315), (Start: 40 @45318 has 19 MA's), (Start: 41 @45321 has 3 MA's), (51, 45438), (53, 45456), (93, 45669), (135, 45885), (137, 45897), (139, 45903), (145, 45939), (158, 45987), (171, 46035),

Gene: Tesla\_63 Start: 36494, Stop: 37447, Start Num: 15

Candidate Starts for Tesla\_63:

(Start: 15 @36494 has 21 MA's), (Start: 40 @36692 has 19 MA's), (50, 36785), (55, 36833), (58, 36863), (66, 36914), (72, 36947), (81, 36986), (102, 37076), (107, 37109), (108, 37112), (115, 37160), (118, 37178), (120, 37199), (133, 37265), (136, 37277), (160, 37385),

Gene: Thimble\_68 Start: 43526, Stop: 44494, Start Num: 6

Candidate Starts for Thimble\_68:

(Start: 6 @43526 has 135 MA's), (Start: 13 @43565 has 1 MA's), (Start: 16 @43571 has 2 MA's), (22, 43595), (23, 43613), (36, 43745), (39, 43760), (Start: 40 @43763 has 19 MA's), (Start: 41 @43766 has 3 MA's), (51, 43883), (53, 43901), (93, 44114), (135, 44330), (137, 44342), (139, 44348), (145, 44384), (158, 44432), (171, 44480),

Gene: Thresher\_69 Start: 45171, Stop: 46139, Start Num: 6

Candidate Starts for Thresher\_69:

(Start: 6 @45171 has 135 MA's), (Start: 13 @45210 has 1 MA's), (Start: 16 @45216 has 2 MA's), (22, 45240), (23, 45258), (36, 45390), (39, 45405), (Start: 40 @45408 has 19 MA's), (Start: 41 @45411 has 3 MA's), (51, 45528), (53, 45546), (93, 45759), (135, 45975), (137, 45987), (139, 45993), (145, 46029), (158, 46077), (171, 46125),

Gene: Tomaszewski\_62 Start: 43460, Stop: 44428, Start Num: 6

Candidate Starts for Tomaszewski\_62:

(Start: 6 @43460 has 135 MA's), (Start: 13 @43499 has 1 MA's), (Start: 16 @43505 has 2 MA's), (22, 43529), (23, 43547), (36, 43679), (39, 43694), (Start: 40 @43697 has 19 MA's), (Start: 41 @43700 has 3 MA's), (51, 43817), (53, 43835), (93, 44048), (135, 44264), (137, 44276), (139, 44282), (145, 44318), (158, 44366), (171, 44414),

Gene: Toto\_65 Start: 44548, Stop: 45516, Start Num: 6

Candidate Starts for Toto\_65:

(Start: 6 @44548 has 135 MA's), (Start: 13 @44587 has 1 MA's), (Start: 16 @44593 has 2 MA's), (22, 44617), (23, 44635), (36, 44767), (39, 44782), (Start: 40 @44785 has 19 MA's), (Start: 41 @44788 has 3 MA's), (51, 44905), (53, 44923), (93, 45136), (135, 45352), (137, 45364), (139, 45370), (145, 45406), (158, 45454), (171, 45502),

Gene: Tourach\_60 Start: 43581, Stop: 44513, Start Num: 14

Candidate Starts for Tourach\_60:

(Start: 14 @43581 has 48 MA's), (Start: 41 @43779 has 3 MA's), (78, 44076), (91, 44115), (93, 44127), (110, 44190), (115, 44232), (116, 44238), (133, 44337), (134, 44340), (138, 44358), (148, 44409), (150, 44421), (158, 44445), (169, 44487),

Gene: TpudiCK\_58 Start: 39491, Stop: 40351, Start Num: 25

Candidate Starts for TpudiCK\_58:

(Start: 25 @39491 has 16 MA's), (Start: 37 @39605 has 5 MA's), (73, 39863), (79, 39899), (86, 39917), (88, 39923), (89, 39929), (94, 39950), (110, 40007), (115, 40046), (116, 40052), (122, 40103), (142, 40199), (154, 40250), (159, 40265), (176, 40340), (177, 40343),

Gene: Traaww1\_63 Start: 43729, Stop: 44697, Start Num: 6

Candidate Starts for Traaww1\_63:

(Start: 6 @43729 has 135 MA's), (Start: 13 @43768 has 1 MA's), (Start: 16 @43774 has 2 MA's), (22, 43798), (23, 43816), (36, 43948), (39, 43963), (Start: 40 @43966 has 19 MA's), (Start: 41 @43969 has 3 MA's), (51, 44086), (53, 44104), (93, 44317), (135, 44533), (137, 44545), (139, 44551), (145, 44587), (158, 44635), (171, 44683),

Gene: Trax\_57 Start: 39086, Stop: 39961, Start Num: 17

Candidate Starts for Trax\_57:

(Start: 17 @39086 has 7 MA's), (28, 39194), (33, 39236), (Start: 40 @39272 has 19 MA's), (63, 39497), (67, 39512), (74, 39551), (78, 39572), (96, 39629), (98, 39644), (111, 39659), (115, 39692), (120, 39731), (121, 39734), (130, 39779), (132, 39791), (133, 39797), (134, 39800), (135, 39803), (145, 39857), (147, 39863), (148, 39869), (155, 39896), (158, 39905),

Gene: TriFive\_62 Start: 44014, Stop: 44751, Start Num: 40

Candidate Starts for TriFive\_62:

(Start: 40 @44014 has 19 MA's), (Start: 41 @44017 has 3 MA's), (93, 44365), (104, 44401), (107, 44419), (109, 44425), (116, 44476), (118, 44488), (120, 44509), (134, 44578), (135, 44581), (138, 44596), (144, 44629), (145, 44635), (147, 44641), (158, 44683), (169, 44725), (171, 44731),

Gene: Tuco\_68 Start: 45056, Stop: 46024, Start Num: 6

Candidate Starts for Tuco\_68:

(Start: 6 @45056 has 135 MA's), (Start: 13 @45095 has 1 MA's), (Start: 16 @45101 has 2 MA's), (22, 45125), (23, 45143), (36, 45275), (39, 45290), (Start: 40 @45293 has 19 MA's), (Start: 41 @45296 has 3 MA's), (51, 45413), (53, 45431), (93, 45644), (135, 45860), (137, 45872), (139, 45878), (145, 45914), (158, 45962), (171, 46010),

Gene: TyDawg\_56 Start: 39492, Stop: 40352, Start Num: 25

Candidate Starts for TyDawg\_56:

(Start: 25 @39492 has 16 MA's), (Start: 37 @39606 has 5 MA's), (73, 39864), (79, 39900), (86, 39918), (88, 39924), (89, 39930), (94, 39951), (110, 40008), (115, 40047), (116, 40053), (122, 40104), (142, 40200), (154, 40251), (159, 40266), (176, 40341), (177, 40344),

Gene: Tyson\_59 Start: 41784, Stop: 42716, Start Num: 14

Candidate Starts for Tyson\_59:

(Start: 14 @41784 has 48 MA's), (Start: 41 @41982 has 3 MA's), (78, 42279), (80, 42285), (87, 42306), (91, 42318), (93, 42330), (96, 42336), (107, 42384), (109, 42390), (115, 42435), (116, 42441), (118, 42453), (133, 42540), (134, 42543), (135, 42546), (138, 42561), (148, 42612), (158, 42648), (169, 42690),

Gene: UPIE\_59 Start: 41776, Stop: 42708, Start Num: 14

Candidate Starts for UPIE\_59:

(1, 41536), (2, 41539), (4, 41611), (7, 41749), (Start: 14 @41776 has 48 MA's), (Start: 41 @41974 has 3 MA's), (78, 42271), (87, 42298), (91, 42310), (93, 42322), (107, 42376), (109, 42382), (115, 42427), (116, 42433), (118, 42445), (133, 42532), (134, 42535), (135, 42538), (138, 42553), (144, 42586), (147, 42598), (148, 42604), (158, 42640), (166, 42673), (169, 42682),

Gene: Ukulele\_62 Start: 43442, Stop: 44410, Start Num: 6

Candidate Starts for Ukulele\_62:

(Start: 6 @43442 has 135 MA's), (Start: 13 @43481 has 1 MA's), (Start: 16 @43487 has 2 MA's), (22, 43511), (23, 43529), (36, 43661), (39, 43676), (Start: 40 @43679 has 19 MA's), (Start: 41 @43682 has 3 MA's), (51, 43799), (53, 43817), (93, 44030), (135, 44246), (137, 44258), (139, 44264), (145, 44300), (158, 44348), (171, 44396),

Gene: Underpass\_52 Start: 38568, Stop: 39500, Start Num: 14

Candidate Starts for Underpass\_52:

(Start: 14 @38568 has 48 MA's), (Start: 41 @38766 has 3 MA's), (78, 39063), (91, 39102), (93, 39114), (96, 39120), (110, 39177), (115, 39219), (116, 39225), (133, 39324), (134, 39327), (138, 39345), (144, 39378), (145, 39384), (148, 39396), (158, 39432), (169, 39474),

Gene: VasuNzinga\_65 Start: 36563, Stop: 37516, Start Num: 15

Candidate Starts for VasuNzinga\_65:

(3, 36395), (Start: 15 @36563 has 21 MA's), (Start: 40 @36761 has 19 MA's), (50, 36854), (55, 36902), (58, 36932), (66, 36983), (72, 37016), (81, 37055), (102, 37145), (107, 37178), (108, 37181), (115, 37229), (118, 37247), (120, 37268), (133, 37334), (136, 37346), (160, 37454),

Gene: Vetrrix\_61 Start: 43536, Stop: 44468, Start Num: 14

Candidate Starts for Vetrax\_61:

(Start: 14 @43536 has 48 MA's), (Start: 41 @43734 has 3 MA's), (78, 44031), (91, 44070), (93, 44082), (96, 44088), (110, 44145), (115, 44187), (116, 44193), (133, 44292), (134, 44295), (138, 44313), (144, 44346), (145, 44352), (148, 44364), (158, 44400), (169, 44442),

Gene: Volt\_86 Start: 44681, Stop: 45451, Start Num: 29

Candidate Starts for Volt\_86:

(Start: 29 @44681 has 6 MA's), (35, 44726), (39, 44747), (47, 44786), (48, 44789), (52, 44870), (63, 44960), (64, 44972), (68, 44981), (80, 45041), (91, 45074), (93, 45086), (107, 45152), (110, 45158), (133, 45296), (134, 45299), (144, 45350),

Gene: Wamburgexpress\_59 Start: 41755, Stop: 42738, Start Num: 6

Candidate Starts for Wamburgexpress\_59:

(Start: 6 @41755 has 135 MA's), (Start: 14 @41797 has 48 MA's), (20, 41818), (Start: 41 @42004 has 3 MA's), (78, 42301), (80, 42307), (87, 42328), (91, 42340), (93, 42352), (107, 42406), (109, 42412), (115, 42457), (116, 42463), (118, 42475), (133, 42562), (134, 42565), (135, 42568), (138, 42583), (144, 42616), (147, 42628), (148, 42634), (158, 42670), (166, 42703), (169, 42712),

Gene: Whirlwind\_61 Start: 43832, Stop: 44569, Start Num: 40

Candidate Starts for Whirlwind\_61:

(Start: 40 @43832 has 19 MA's), (Start: 41 @43835 has 3 MA's), (93, 44183), (96, 44189), (104, 44219), (109, 44243), (116, 44294), (118, 44306), (120, 44327), (134, 44396), (135, 44399), (138, 44414), (144, 44447), (145, 44453), (147, 44459), (158, 44501), (169, 44543), (171, 44549),

Gene: Wiggin\_69 Start: 44130, Stop: 45098, Start Num: 6

Candidate Starts for Wiggin\_69:

(Start: 6 @44130 has 135 MA's), (Start: 13 @44169 has 1 MA's), (Start: 16 @44175 has 2 MA's), (22, 44199), (23, 44217), (36, 44349), (39, 44364), (Start: 40 @44367 has 19 MA's), (Start: 41 @44370 has 3 MA's), (51, 44487), (53, 44505), (93, 44718), (135, 44934), (137, 44946), (139, 44952), (145, 44988), (158, 45036), (171, 45084),

Gene: Wigglewigggle\_61 Start: 43556, Stop: 44488, Start Num: 14

Candidate Starts for Wigglewigggle\_61:

(Start: 14 @43556 has 48 MA's), (78, 44051), (91, 44090), (93, 44102), (96, 44108), (110, 44165), (115, 44207), (116, 44213), (133, 44312), (134, 44315), (138, 44333), (144, 44366), (145, 44372), (148, 44384), (158, 44420), (169, 44462),

Gene: Wildcat\_67 Start: 44523, Stop: 45428, Start Num: 21

Candidate Starts for Wildcat\_67:

(Start: 21 @44523 has 6 MA's), (36, 44676), (Start: 38 @44685 has 1 MA's), (39, 44691), (45, 44721), (48, 44733), (51, 44784), (63, 44892), (68, 44913), (70, 44928), (82, 44976), (99, 45042), (103, 45051), (113, 45108), (142, 45276), (146, 45294), (162, 45360), (165, 45366), (168, 45381), (176, 45417),

Gene: Wilder\_62 Start: 43502, Stop: 44434, Start Num: 14

Candidate Starts for Wilder\_62:

(Start: 14 @43502 has 48 MA's), (Start: 41 @43700 has 3 MA's), (78, 43997), (91, 44036), (93, 44048), (96, 44054), (110, 44111), (115, 44153), (116, 44159), (133, 44258), (134, 44261), (138, 44279), (144, 44312), (145, 44318), (148, 44330), (158, 44366), (169, 44408),

Gene: Willez\_62 Start: 42326, Stop: 43294, Start Num: 6

Candidate Starts for Willez\_62:

(Start: 6 @42326 has 135 MA's), (Start: 13 @42365 has 1 MA's), (Start: 16 @42371 has 2 MA's), (22, 42395), (23, 42413), (36, 42545), (39, 42560), (Start: 40 @42563 has 19 MA's), (Start: 41 @42566 has

3 MA's), (51, 42683), (53, 42701), (93, 42914), (135, 43130), (137, 43142), (139, 43148), (145, 43184), (158, 43232), (171, 43280),

Gene: Winky\_61 Start: 43496, Stop: 44428, Start Num: 14

Candidate Starts for Winky\_61:

(Start: 14 @43496 has 48 MA's), (Start: 41 @43694 has 3 MA's), (78, 43991), (91, 44030), (93, 44042), (96, 44048), (110, 44105), (115, 44147), (116, 44153), (133, 44252), (134, 44255), (138, 44273), (144, 44306), (145, 44312), (148, 44324), (158, 44360), (169, 44402),

Gene: Wyatt2\_60 Start: 41782, Stop: 42714, Start Num: 14

Candidate Starts for Wyatt2\_60:

(Start: 14 @41782 has 48 MA's), (Start: 41 @41980 has 3 MA's), (78, 42277), (80, 42283), (87, 42304), (91, 42316), (93, 42328), (96, 42334), (107, 42382), (109, 42388), (115, 42433), (116, 42439), (118, 42451), (133, 42538), (134, 42541), (135, 42544), (138, 42559), (148, 42610), (158, 42646), (169, 42688),

Gene: Xandras\_66 Start: 43541, Stop: 44509, Start Num: 6

Candidate Starts for Xandras\_66:

(Start: 6 @43541 has 135 MA's), (Start: 13 @43580 has 1 MA's), (Start: 16 @43586 has 2 MA's), (22, 43610), (23, 43628), (36, 43760), (39, 43775), (Start: 40 @43778 has 19 MA's), (Start: 41 @43781 has 3 MA's), (51, 43898), (53, 43916), (93, 44129), (135, 44345), (137, 44357), (139, 44363), (145, 44399), (158, 44447), (171, 44495),

Gene: YassJohnny\_64 Start: 43499, Stop: 44467, Start Num: 6

Candidate Starts for YassJohnny\_64:

(Start: 6 @43499 has 135 MA's), (Start: 13 @43538 has 1 MA's), (Start: 16 @43544 has 2 MA's), (22, 43568), (23, 43586), (36, 43718), (39, 43733), (Start: 40 @43736 has 19 MA's), (Start: 41 @43739 has 3 MA's), (51, 43856), (53, 43874), (93, 44087), (135, 44303), (137, 44315), (139, 44321), (145, 44357), (158, 44405), (171, 44453),

Gene: Youngblood\_70 Start: 45011, Stop: 45979, Start Num: 6

Candidate Starts for Youngblood\_70:

(Start: 6 @45011 has 135 MA's), (Start: 13 @45050 has 1 MA's), (Start: 16 @45056 has 2 MA's), (22, 45080), (23, 45098), (36, 45230), (39, 45245), (Start: 40 @45248 has 19 MA's), (Start: 41 @45251 has 3 MA's), (51, 45368), (53, 45386), (93, 45599), (135, 45815), (137, 45827), (139, 45833), (145, 45869), (158, 45917), (171, 45965),

Gene: Zakai\_62 Start: 43822, Stop: 44754, Start Num: 14

Candidate Starts for Zakai\_62:

(Start: 14 @43822 has 48 MA's), (Start: 41 @44020 has 3 MA's), (78, 44317), (91, 44356), (93, 44368), (96, 44374), (110, 44431), (115, 44473), (116, 44479), (133, 44578), (134, 44581), (138, 44599), (144, 44632), (145, 44638), (148, 44650), (158, 44686), (169, 44728),

Gene: Zaria\_60 Start: 41867, Stop: 42850, Start Num: 6

Candidate Starts for Zaria\_60:

(Start: 6 @41867 has 135 MA's), (Start: 14 @41909 has 48 MA's), (20, 41930), (Start: 41 @42116 has 3 MA's), (78, 42413), (80, 42419), (87, 42440), (91, 42452), (93, 42464), (107, 42518), (109, 42524), (115, 42569), (116, 42575), (118, 42587), (133, 42674), (134, 42677), (135, 42680), (138, 42695), (144, 42728), (147, 42740), (148, 42746), (158, 42782), (166, 42815), (169, 42824),

Gene: ZhongYanYuan\_59 Start: 43391, Stop: 44323, Start Num: 14

Candidate Starts for ZhongYanYuan\_59:

(Start: 14 @43391 has 48 MA's), (Start: 41 @43589 has 3 MA's), (78, 43886), (91, 43925), (93, 43937), (109, 43997), (110, 44000), (115, 44042), (118, 44060), (120, 44081), (133, 44147), (134, 44150), (138, 44168), (148, 44219), (150, 44231), (158, 44255), (169, 44297),

Gene: Ziko\_85 Start: 44502, Stop: 45272, Start Num: 29

Candidate Starts for Ziko\_85:

(Start: 29 @44502 has 6 MA's), (35, 44547), (39, 44568), (47, 44607), (48, 44610), (52, 44691), (63, 44781), (64, 44793), (68, 44802), (80, 44862), (91, 44895), (93, 44907), (107, 44973), (110, 44979), (116, 45018), (133, 45117), (134, 45120), (144, 45171),

Gene: xkcd\_70 Start: 45201, Stop: 46169, Start Num: 6

Candidate Starts for xkcd\_70:

(Start: 6 @45201 has 135 MA's), (Start: 13 @45240 has 1 MA's), (Start: 16 @45246 has 2 MA's), (22, 45270), (23, 45288), (36, 45420), (39, 45435), (Start: 40 @45438 has 19 MA's), (Start: 41 @45441 has 3 MA's), (51, 45558), (53, 45576), (93, 45789), (135, 46005), (137, 46017), (139, 46023), (145, 46059), (158, 46107), (171, 46155),