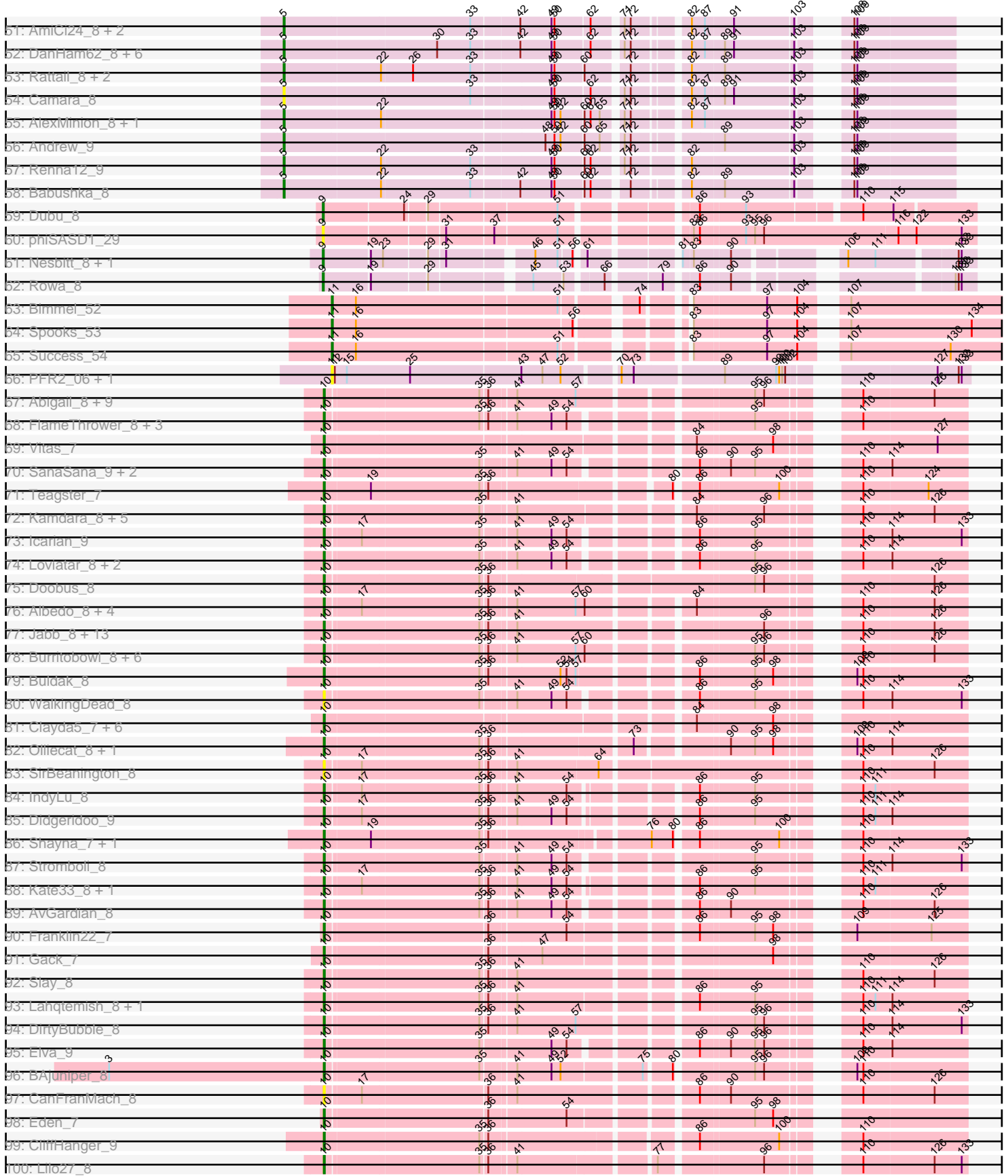




Pham 304673





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 304673 Report

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

Pham number 304673 has 274 members, 39 are drafts.

Phages represented in each track:

- Track 1 : PinkFriday\_7, Maria1952\_7, Pumancara\_7, Supakev\_7
- Track 2 : Chridison\_7, AustinPowers\_7
- Track 3 : Oxynfrius\_11, Nubia\_11
- Track 4 : Preamble\_7
- Track 5 : Carpal\_11, Potatoes\_11, Cholula\_11, Dino\_11, Wawa\_11, Immaculata\_11, Beethoven\_11, Kalizoi\_11
- Track 6 : Korra\_11, Zorro\_11
- Track 7 : Bennie\_7, HeadNerd\_7, Moki\_7
- Track 8 : Riovina\_7, Eunoia\_7
- Track 9 : DrRobert\_7, Christian\_7, Lennox\_7, PitaDog\_7, LilStuart\_7, ChewChew\_7, OurGirlNessie\_7
- Track 10 : AppleCider\_11, PartyCup\_11, Litotes\_11, Graynor\_11, CallieOMalley\_11
- Track 11 : Albanese\_11, Lakshmi\_11, GreenHearts\_11, Joann\_11
- Track 12 : Urla\_7
- Track 13 : Greenhouse\_11
- Track 14 : Wayne\_11, Suppi\_11, Canowicakte\_11
- Track 15 : Nancia\_7
- Track 16 : Makoto\_7, Lucy\_7, Pterodactyl\_7
- Track 17 : Kittykat\_7
- Track 18 : Scuttle\_11, Vallejo\_11
- Track 19 : Glenn\_11
- Track 20 : Gisselle\_7, DreamTeam\_7
- Track 21 : Jumboset\_11, Riverdale\_11, RAP15\_11, Savage2526\_11, MeganNoll\_11
- Track 22 : KingBob\_7, Herb\_7, Sergei\_7, Daiboju\_7, Temper16\_7
- Track 23 : Bodacious\_7, CristinaYang\_7, Lasagna\_7
- Track 24 : OMalley\_7, Aledel\_7
- Track 25 : RcigaStruga\_11, Huntingdon\_11
- Track 26 : HunterDalle\_7, Vulture\_7
- Track 27 : BigMack\_7
- Track 28 : Fluke\_11, Rozby\_11
- Track 29 : WonderBoy\_7
- Track 30 : Huckleberry\_7, MamaPearl\_7, EstebanJulior\_7
- Track 31 : MrBoss\_11
- Track 32 : TattModd\_11, MrGloopy\_11
- Track 33 : Misaeng\_11
- Track 34 : BrotherBLo\_11
- Track 35 : Niblet\_9, Chicken\_9, Zixiang\_9

- Track 36 : Brynnie\_9, Chickaboom\_8, WileyE\_8, Vulpecula\_9, Ruchi\_9, Basilisk\_9
- Track 37 : Abidatro\_9, Galaxy\_9
- Track 38 : Amanises\_10, Toad24\_10, Westrich\_10, Shen\_10, KendraB23\_10
- Track 39 : Jamun\_9
- Track 40 : Pelletreau\_10, Gravel\_10
- Track 41 : Orcanus\_9
- Track 42 : TaylorSipht\_9
- Track 43 : Eesa\_9
- Track 44 : Damocles\_10, Melons\_10, OtsoOtso\_9, Pineda\_10, Polka\_9, Bible12\_10, Amelia\_10, Bedetta\_10, Cote\_10, GramZayde\_9, PhirstandPhine\_10, Coral\_9, Daob\_10, Lunar\_10, Kepler\_9, HannahPhantana\_10, Jerole\_10, Colusalem\_9
- Track 45 : Kuleana\_9
- Track 46 : Antrice\_9
- Track 47 : LittleTokyo\_9
- Track 48 : Zhuangyuan\_10
- Track 49 : Cygnet\_9
- Track 50 : Oppalora\_8, KHumphrey\_8, Glotell\_8, Atlantica\_8
- Track 51 : AmiCi24\_8, Fingolfin\_8, Juno112\_8
- Track 52 : DanHam62\_8, PhluffyCoco\_8, Amphitrite\_8, Laphuphu24k\_8, HamCheese\_8, RedFox\_8, AdoptaAdorbs\_8
- Track 53 : Rattail\_8, Azaz\_8, Leona\_8
- Track 54 : Camara\_8
- Track 55 : AlexMinion\_8, StuartMinion\_8
- Track 56 : Andrew\_9
- Track 57 : Renna12\_9
- Track 58 : Babushka\_8
- Track 59 : Dubu\_8
- Track 60 : phiSASD1\_29
- Track 61 : Nesbitt\_8, AbbeyMikolon\_8
- Track 62 : Rowa\_8
- Track 63 : Bimmel\_52
- Track 64 : Spooks\_53
- Track 65 : Success\_54
- Track 66 : PFR2\_06, PFR1\_06
- Track 67 : Abigail\_8, Avocadoman\_8, Softsoap\_8, Johnathan\_8, Albright\_8, Solea\_9, LimaBean\_8, Arroyo\_9, Milomuff\_9, Bengal\_8
- Track 68 : FlameThrower\_8, Bachaco\_8, Celaena\_8, Katzastrophic\_8
- Track 69 : Vitas\_7
- Track 70 : SanaSana\_9, Stoor\_8, PondAmelia\_11
- Track 71 : Teagster\_7
- Track 72 : Kamdara\_8, Kieran\_8, Dismas\_8, ChiliPepper\_8, Rona\_8, Sharkboy\_8
- Track 73 : Icarian\_9
- Track 74 : Loviatar\_8, Akino08\_8, BabyYoda\_8
- Track 75 : Doobus\_8
- Track 76 : Albedo\_8, Lynlen\_8, Kenzers\_8, BubbaBear\_8, Phisb\_8
- Track 77 : Jabb\_8, Swervy\_8, Finalfrontier\_9, CupcakePrincess\_8, AylexOG\_9, TukTuk\_8, MsUbiquitous\_8, Jovita\_8, Nicky22\_9, Pecas\_8, SarBear\_8, Cashington\_8, Eula\_8, QMacho\_9
- Track 78 : Burritobowl\_8, DickRichards\_8, BelmontSKP\_9, AnnaLie\_9, SansAfet\_8, PhigPhack\_8, CroZenni\_8
- Track 79 : Buldak\_8
- Track 80 : WalkingDead\_8

- Track 81 : Clayda5\_7, Bernstein\_7, Brahms\_7, Rollins\_7, Coltrane\_7, Armstrong\_7, Skylord\_7
- Track 82 : Olliecat\_8, Squirrel\_8
- Track 83 : SirBeanington\_8
- Track 84 : IndyLu\_8
- Track 85 : Didgeridoo\_9
- Track 86 : Shayna\_7, SunnyD\_7
- Track 87 : Stromboli\_8
- Track 88 : Kate33\_8, BabyDaisy\_9
- Track 89 : AvGardian\_8
- Track 90 : Franklin22\_7
- Track 91 : Gack\_7
- Track 92 : Slay\_8
- Track 93 : Lahqtemish\_8, PastaFagioli\_8
- Track 94 : DirtyBubble\_8
- Track 95 : Elva\_9
- Track 96 : BAjuniper\_8
- Track 97 : CanFranMach\_8
- Track 98 : Eden\_7
- Track 99 : CliffHanger\_9
- Track 100 : Lilo27\_8
- Track 101 : Quenya\_9
- Track 102 : GlobiWarming\_9, NikkiHotWheels\_9, NidoQ\_9, Judy\_9
- Track 103 : Eileen\_9, Peas\_9
- Track 104 : Bridgette\_9, Henrique\_9
- Track 105 : LittleRon\_9, ChuckDuck\_9, KayMoney\_9
- Track 106 : Constance\_9, PeggyLeg03\_9, FosterFrank\_9
- Track 107 : LilyBell\_9, Pucara\_9, HotPotato\_9
- Track 108 : Karkharias\_9
- Track 109 : Che9c\_8
- Track 110 : RunningOnE\_68
- Track 111 : Ibantik\_72

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

The start number called the most often in the published annotations is 10, it was called in 80 of the 235 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail\_8, Akino08\_8, Albedo\_8, Albright\_8, AnnaLie\_9, Armstrong\_7, Arroyo\_9, AvGardian\_8, Avocadoman\_8, AylexOG\_9, BAjuniper\_8, BabyDaisy\_9, BabyYoda\_8, Bachaco\_8, BelmontSKP\_9, Bengal\_8, Bernstein\_7, Brahms\_7, BubbaBear\_8, Buldak\_8, Burritobowl\_8, CanFranMach\_8, Cashington\_8, Celaena\_8, ChiliPepper\_8, Clayda5\_7, CliffHanger\_9, Coltrane\_7, CroZenni\_8, CupcakePrincess\_8, DickRichards\_8, Didgeridoo\_9, DirtyBubble\_8, Dismas\_8, Doobus\_8, Eden\_7, Elva\_9, Eula\_8, Finalfrontier\_9, FlameThrower\_8, Franklin22\_7, Gack\_7, Icarian\_9, IndyLu\_8, Jabb\_8, Johnathan\_8, Jovita\_8, Kamdara\_8, Kate33\_8, Katzastrophic\_8, Kenzers\_8, Kieran\_8, Lahqtemish\_8, Lilo27\_8, LimaBean\_8, Loviatar\_8, Lynlen\_8, Milomuff\_9, MsUbiquitous\_8, Nicky22\_9, Olliecat\_8, PastaFagioli\_8, Pecas\_8, PhigPhack\_8, Phisb\_8, PondAmelia\_11, QMacho\_9,

Quenya\_9, Rollins\_7, Rona\_8, SanaSana\_9, SansAfet\_8, SarBear\_8, Sharkboy\_8, Shayna\_7, SirBeanington\_8, Skylord\_7, Slay\_8, Softsoap\_8, Solea\_9, Squircle\_8, Stoor\_8, Stromboli\_8, SunnyD\_7, Swervy\_8, Teagster\_7, TukTuk\_8, Vitas\_7, WalkingDead\_8,

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

- 

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

- AbbeyMikolon\_8, Abidatro\_9, AdoptaAdorbs\_8, Albanese\_11, Aledel\_7, AlexMinion\_8, Amanises\_10, Amelia\_10, AmiCi24\_8, Amphitrite\_8, Andrew\_9, Antrice\_9, AppleCider\_11, Atlantica\_8, AustinPowers\_7, Azaz\_8, Babushka\_8, Basilisk\_9, Bedetta\_10, Beethoven\_11, Bennie\_7, Bibble12\_10, BigMack\_7, Bimmel\_52, Bodacious\_7, Bridgette\_9, BrotherBLo\_11, Brynnie\_9, CallieOMalley\_11, Camara\_8, Canowicakte\_11, Carpal\_11, Che9c\_8, ChewChew\_7, Chickaboom\_8, Chicken\_9, Cholula\_11, Chridison\_7, Christian\_7, ChuckDuck\_9, Colusalem\_9, Constance\_9, Coral\_9, Cote\_10, CristinaYang\_7, Cygnet\_9, Daiboju\_7, Damocles\_10, DanHam62\_8, Daob\_10, Dino\_11, DrRobert\_7, DreamTeam\_7, Dubu\_8, Eesa\_9, Eileen\_9, EstebanJulior\_7, Eunoia\_7, Fingolfin\_8, Fluke\_11, FosterFrank\_9, Galaxy\_9, Gisselle\_7, Glenn\_11, GlobiWarming\_9, Glotell\_8, GramZayde\_9, Gravel\_10, Graynor\_11, GreenHearts\_11, Greenhouse\_11, HamCheese\_8, HannahPhantana\_10, HeadNerd\_7, Henrique\_9, Herb\_7, HotPotato\_9, Huckleberry\_7, HunterDalle\_7, Huntingdon\_11, Ibantik\_72, Immaculata\_11, Jamun\_9, Jerole\_10, Joann\_11, Judy\_9, Jumboset\_11, Juno112\_8, KHumphrey\_8, Kalizoi\_11, Karkharias\_9, KayMoney\_9, KendraB23\_10, Kepler\_9, KingBob\_7, Kittykat\_7, Korra\_11, Kuleana\_9, Lakshmi\_11, Laphuphu24k\_8, Lasagna\_7, Lennox\_7, Leona\_8, LilStuart\_7, LilyBell\_9, Litotes\_11, LittleRon\_9, LittleTokyo\_9, Lucy\_7, Lunar\_10, Makoto\_7, MamaPearl\_7, Maria1952\_7, MeganNoll\_11, Melons\_10, Misaeng\_11, Moki\_7, MrBoss\_11, MrGloopy\_11, Nancia\_7, Nesbitt\_8, Niblet\_9, NidoQ\_9, NikkiHotWheels\_9, Nubia\_11, OMalley\_7, Oppalora\_8, Orcanus\_9, OtsoOtso\_9, OurGirlNessie\_7, Oxynfrius\_11, PFR1\_06, PFR2\_06, PartyCup\_11, Peas\_9, PeggyLeg03\_9, Pelletreau\_10, PhirstandPhine\_10, PhluffyCoco\_8, Pineda\_10, PinkFriday\_7, PitaDog\_7, Polka\_9, Potatoes\_11, Preamble\_7, Pterodactyl\_7, Pucara\_9, Pumancara\_7, RAP15\_11, Rattail\_8, RcigaStruga\_11, RedFox\_8, Renna12\_9, Riovina\_7, Riverdale\_11, Rowa\_8, Rozby\_11, Ruchi\_9, RunningOnE\_68, Savage2526\_11, Scuttle\_11, Sergei\_7, Shen\_10, Spooks\_53, StuartMinion\_8, Success\_54, Supakev\_7, Suppi\_11, TattModd\_11, TaylorSipht\_9, Temper16\_7, Toad24\_10, Urla\_7, Vallejo\_11, Vulpecula\_9, Vulture\_7, Wawa\_11, Wayne\_11, Westrich\_10, WileyE\_8, WonderBoy\_7, Zhuangyuan\_10, Zixiang\_9, Zorro\_11, phiSASD1\_29,

### Summary by start number:

Start 5:

- Found in 68 of 274 ( 24.8% ) of genes in pham
- Manual Annotations of this start: 50 of 235
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro\_9 (AS1), AdoptaAdorbs\_8 (AS3), AlexMinion\_8 (AS3), Amanises\_10 (AS1), Amelia\_10 (AS2), AmiCi24\_8 (AS3), Amphitrite\_8 (AS3), Andrew\_9 (AS3), Antrice\_9 (AS2), Atlantica\_8 (AS3), Azaz\_8 (AS3), Babushka\_8 (AS3), Basilisk\_9 (AS1), Bedetta\_10 (AS2), Bibble12\_10 (AS2), Brynnie\_9 (AS1), Camara\_8 (AS3), Chickaboom\_8 (AS1), Chicken\_9 (AS1), Colusalem\_9 (AS2), Coral\_9 (AS2), Cote\_10 (AS2), Cygnet\_9 (AS2), Damocles\_10

(AS2), DanHam62\_8 (AS3), Daob\_10 (AS2), Eesa\_9 (AS1), Fingolfin\_8 (AS3), Galaxy\_9 (AS1), Glotell\_8 (AS3), GramZayde\_9 (AS2), Gravel\_10 (AS1), HamCheese\_8 (AS3), HannahPhantana\_10 (AS2), Jamun\_9 (AS1), Jerole\_10 (AS2), Juno112\_8 (AS3), KHumphrey\_8 (AS3), KendraB23\_10 (AS1), Kepler\_9 (AS2), Kuleana\_9 (AS2), Laphuphu24k\_8 (AS3), Leona\_8 (AS3), LittleTokyo\_9 (AS2), Lunar\_10 (AS2), Melons\_10 (AS2), Niblet\_9 (AS1), Oppalora\_8 (AS3), Orcanus\_9 (AS1), OtsoOtso\_9 (AS2), Pelletreau\_10 (AS1), PhirstandPhine\_10 (AS2), PhluffyCoco\_8 (AS3), Pineda\_10 (AS2), Polka\_9 (AS2), Rattail\_8 (AS3), RedFox\_8 (AS3), Renna12\_9 (AS3), Ruchi\_9 (AS1), Shen\_10 (AS1), StuartMinion\_8 (AS3), TaylorSipt\_9 (AS1), Toad24\_10 (AS1), Vulpecula\_9 (AS1), Westrich\_10 (AS1), WileyE\_8 (AS1), Zhuangyuan\_10 (AS2), Zixiang\_9 (AS1),

#### Start 6:

- Found in 77 of 274 ( 28.1% ) of genes in pham
- Manual Annotations of this start: 52 of 235
- Called 67.5% of time when present
- Phage (with cluster) where this start called: Albanese\_11 (AK), Aledel\_7 (AK), AustinPowers\_7 (AK), Beethoven\_11 (AK), Bennie\_7 (AK), BrotherBLo\_11 (AK), Carpal\_11 (AK), ChewChew\_7 (AK), Cholula\_11 (AK), Chridison\_7 (AK), Christian\_7 (AK), Dino\_11 (AK), DrRobert\_7 (AK), Fluke\_11 (AK), GreenHearts\_11 (AK), HeadNerd\_7 (AK), HunterDalle\_7 (AK), Huntingdon\_11 (AK), Immaculata\_11 (AK), Joann\_11 (AK), Jumboset\_11 (AK), Kalizoi\_11 (AK), Kittykat\_7 (AK), Lakshmi\_11 (AK), Lennox\_7 (AK), LilStuart\_7 (AK), Lucy\_7 (AK), Makoto\_7 (AK), Maria1952\_7 (AK), MeganNoll\_11 (AK), Misaeng\_11 (AK), Moki\_7 (AK), MrGloopy\_11 (AK), Nancia\_7 (AK), OMalley\_7 (AK), OurGirlNessie\_7 (AK), PinkFriday\_7 (AK), PitaDog\_7 (AK), Potatoes\_11 (AK), Preamble\_7 (AK), Pterodactyl\_7 (AK), Pumancara\_7 (AK), RAP15\_11 (AK), RcigaStruga\_11 (AK), Riverdale\_11 (AK), Rozby\_11 (AK), Savage2526\_11 (AK), Supakev\_7 (AK), TattModd\_11 (AK), Urla\_7 (AK), Vulture\_7 (AK), Wawa\_11 (AK),

#### Start 7:

- Found in 9 of 274 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 7 of 235
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AppleCider\_11 (AK), CallieOMalley\_11 (AK), Canowicakte\_11 (AK), Graynor\_11 (AK), Litotes\_11 (AK), MrBoss\_11 (AK), PartyCup\_11 (AK), Suppi\_11 (AK), Wayne\_11 (AK),

#### Start 8:

- Found in 77 of 274 ( 28.1% ) of genes in pham
- Manual Annotations of this start: 25 of 235
- Called 32.5% of time when present
- Phage (with cluster) where this start called: BigMack\_7 (AK), Bodacious\_7 (AK), CristinaYang\_7 (AK), Daiboju\_7 (AK), DreamTeam\_7 (AK), EstebanJulior\_7 (AK), Eunoia\_7 (AK), Gisselle\_7 (AK), Glenn\_11 (AK), Greenhouse\_11 (AK), Herb\_7 (AK), Huckleberry\_7 (AK), KingBob\_7 (AK), Korra\_11 (AK), Lasagna\_7 (AK), MamaPearl\_7 (AK), Nubia\_11 (AK), Oxynfrius\_11 (AK), Riovina\_7 (AK), Scuttle\_11 (AK), Sergei\_7 (AK), Temper16\_7 (AK), Vallejo\_11 (AK), WonderBoy\_7 (AK), Zorro\_11 (AK),

#### Start 9:

- Found in 23 of 274 ( 8.4% ) of genes in pham
- Manual Annotations of this start: 16 of 235
- Called 100.0% of time when present

- Phage (with cluster) where this start called: AbbeyMikolon\_8 (BL), Bridgette\_9 (FA), ChuckDuck\_9 (FA), Constance\_9 (FA), Dubu\_8 (BJ), Eileen\_9 (FA), FosterFrank\_9 (FA), GlobiWarming\_9 (FA), Henrique\_9 (FA), HotPotato\_9 (FA), Judy\_9 (FA), Karkharias\_9 (FA), KayMoney\_9 (FA), LilyBell\_9 (FA), LittleRon\_9 (FA), Nesbitt\_8 (BL), NidoQ\_9 (FA), NikkiHotWheels\_9 (FA), Peas\_9 (FA), PeggyLeg03\_9 (FA), Pucara\_9 (FA), Rowa\_8 (BL), phiSASD1\_29 (BJ),

Start 10:

- Found in 89 of 274 ( 32.5% ) of genes in pham
- Manual Annotations of this start: 80 of 235
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail\_8 (EB), Akino08\_8 (EB), Albedo\_8 (EB), Albright\_8 (EB), AnnaLie\_9 (EB), Armstrong\_7 (EB), Arroyo\_9 (EB), AvGardian\_8 (EB), Avocadoman\_8 (EB), AylexOG\_9 (EB), BAjuniper\_8 (EB), BabyDaisy\_9 (EB), BabyYoda\_8 (EB), Bachaco\_8 (EB), BelmontSKP\_9 (EB), Bengal\_8 (EB), Bernstein\_7 (EB), Brahms\_7 (EB), BubbaBear\_8 (EB), Buldak\_8 (EB), Burritobowl\_8 (EB), CanFranMach\_8 (EB), Cashington\_8 (EB), Celaena\_8 (EB), ChiliPepper\_8 (EB), Clayda5\_7 (EB), CliffHanger\_9 (EB), Coltrane\_7 (EB), CroZenni\_8 (EB), CupcakePrincess\_8 (EB), DickRichards\_8 (EB), Didgeridoo\_9 (EB), DirtyBubble\_8 (EB), Dismas\_8 (EB), Doobus\_8 (EB), Eden\_7 (EB), Elva\_9 (EB), Eula\_8 (EB), Finalfrontier\_9 (EB), FlameThrower\_8 (EB), Franklin22\_7 (EB), Gack\_7 (EB), Icarian\_9 (EB), IndyLu\_8 (EB), Jabb\_8 (EB), Johnathan\_8 (EB), Jovita\_8 (EB), Kamdara\_8 (EB), Kate33\_8 (EB), Katzastrophic\_8 (EB), Kenzers\_8 (EB), Kieran\_8 (EB), Lahqtemish\_8 (EB), Lilo27\_8 (EB), LimaBean\_8 (EB), Loviatar\_8 (EB), Lynlen\_8 (EB), Milomuff\_9 (EB), MsUbiquitous\_8 (EB), Nicky22\_9 (EB), Olliecat\_8 (EB), PastaFagioli\_8 (EB), Pecas\_8 (EB), PhigPhack\_8 (EB), Phisb\_8 (EB), PondAmelia\_11 (EB), QMacho\_9 (EB), Quenya\_9 (EB), Rollins\_7 (EB), Rona\_8 (EB), SanaSana\_9 (EB), SansAfet\_8 (EB), SarBear\_8 (EB), Sharkboy\_8 (EB), Shayna\_7 (EB), SirBeanington\_8 (EB), Skylord\_7 (EB), Slay\_8 (EB), Softsoap\_8 (EB), Solea\_9 (EB), Squirrel\_8 (EB), Stoor\_8 (EB), Stromboli\_8 (EB), SunnyD\_7 (EB), Swervy\_8 (EB), Teagster\_7 (EB), TukTuk\_8 (EB), Vitas\_7 (EB), WalkingDead\_8 (EB),

Start 11:

- Found in 7 of 274 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 4 of 235
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bimmel\_52 (BT), Ibantik\_72 (singleton), PFR1\_06 (BX), PFR2\_06 (BX), RunningOnE\_68 (UNK), Spooks\_53 (BT), Success\_54 (BT),

Start 20:

- Found in 1 of 274 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 235
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Che9c\_8 (I2),

### Summary by clusters:

There are 13 clusters represented in this pham: AS3, AS2, AS1, BL, AK, I2, singleton, BJ, EB, BT, FA, UNK, BX,

Info for manual annotations of cluster AK:

- Start number 6 was manually annotated 52 times for cluster AK.
- Start number 7 was manually annotated 7 times for cluster AK.
- Start number 8 was manually annotated 25 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 5 was manually annotated 17 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 5 was manually annotated 17 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 5 was manually annotated 16 times for cluster AS3.

Info for manual annotations of cluster BJ:

- Start number 9 was manually annotated 1 time for cluster BJ.

Info for manual annotations of cluster BL:

- Start number 9 was manually annotated 3 times for cluster BL.

Info for manual annotations of cluster BT:

- Start number 11 was manually annotated 3 times for cluster BT.

Info for manual annotations of cluster EB:

- Start number 10 was manually annotated 80 times for cluster EB.

Info for manual annotations of cluster FA:

- Start number 9 was manually annotated 12 times for cluster FA.

Info for manual annotations of cluster I2:

- Start number 20 was manually annotated 1 time for cluster I2.

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

Gene: AbbeyMikolon\_8 Start: 6661, Stop: 7194, Start Num: 9

Candidate Starts for AbbeyMikolon\_8:

(Start: 9 @6661 has 16 MA's), (19, 6706), (23, 6718), (29, 6757), (31, 6772), (46, 6844), (51, 6865), (56, 6877), (61, 6883), (81, 6955), (83, 6964), (90, 6997), (106, 7078), (111, 7105), (132, 7177), (133, 7180),

Gene: Abidatro\_9 Start: 7106, Stop: 7693, Start Num: 5

Candidate Starts for Abidatro\_9:

(Start: 5 @7106 has 50 MA's), (33, 7286), (47, 7352), (52, 7370), (60, 7391), (65, 7406), (72, 7427), (103, 7568), (109, 7598),

Gene: Abigail\_8 Start: 6884, Stop: 7444, Start Num: 10

Candidate Starts for Abigail\_8:

(Start: 10 @6884 has 80 MA's), (35, 7031), (36, 7037), (41, 7061), (57, 7118), (95, 7271), (96, 7280), (110, 7343), (126, 7412),

Gene: AdoptaAdorbs\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for AdoptaAdorbs\_8:

(Start: 5 @6714 has 50 MA's), (30, 6861), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Akino08\_8 Start: 7012, Stop: 7563, Start Num: 10

Candidate Starts for Akino08\_8:

(Start: 10 @7012 has 80 MA's), (35, 7159), (41, 7189), (49, 7222), (54, 7237), (86, 7339), (95, 7390), (110, 7462), (114, 7489),

Gene: Albanese\_11 Start: 9268, Stop: 9846, Start Num: 6

Candidate Starts for Albanese\_11:

(Start: 6 @9268 has 52 MA's), (Start: 8 @9277 has 25 MA's), (16, 9322), (34, 9439), (36, 9451), (37, 9457), (52, 9520), (62, 9547), (86, 9631), (88, 9637), (92, 9667), (103, 9715), (109, 9745), (131, 9838),

Gene: Albedo\_8 Start: 6756, Stop: 7316, Start Num: 10

Candidate Starts for Albedo\_8:

(Start: 10 @6756 has 80 MA's), (17, 6789), (35, 6903), (36, 6909), (41, 6933), (57, 6990), (60, 6999), (84, 7089), (110, 7215), (126, 7284),

Gene: Albright\_8 Start: 6765, Stop: 7325, Start Num: 10

Candidate Starts for Albright\_8:

(Start: 10 @6765 has 80 MA's), (35, 6912), (36, 6918), (41, 6942), (57, 6999), (95, 7152), (96, 7161), (110, 7224), (126, 7293),

Gene: Aledel\_7 Start: 6342, Stop: 6923, Start Num: 6

Candidate Starts for Aledel\_7:

(Start: 6 @6342 has 52 MA's), (Start: 8 @6351 has 25 MA's), (16, 6396), (24, 6441), (34, 6513), (36, 6525), (37, 6531), (62, 6621), (72, 6651), (84, 6702), (88, 6711), (96, 6762), (97, 6765), (100, 6777), (103, 6789), (109, 6819), (114, 6852), (131, 6912),

Gene: AlexMinion\_8 Start: 6740, Stop: 7327, Start Num: 5

Candidate Starts for AlexMinion\_8:

(Start: 5 @6740 has 50 MA's), (22, 6833), (49, 6995), (50, 6998), (52, 7004), (60, 7025), (62, 7031), (65, 7040), (71, 7055), (72, 7061), (82, 7106), (87, 7118), (103, 7202), (108, 7229), (109, 7232),

Gene: Amanises\_10 Start: 7302, Stop: 7889, Start Num: 5

Candidate Starts for Amanises\_10:

(Start: 5 @7302 has 50 MA's), (33, 7482), (44, 7530), (50, 7560), (52, 7566), (60, 7587), (63, 7599), (65, 7602), (72, 7623), (78, 7644), (92, 7716), (103, 7764), (114, 7827), (120, 7845),

Gene: Amelia\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Amelia\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: AmiCi24\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for AmiCi24\_8:

(Start: 5 @6714 has 50 MA's), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Amphitrite\_8 Start: 6712, Stop: 7299, Start Num: 5

Candidate Starts for Amphitrite\_8:

(Start: 5 @6712 has 50 MA's), (30, 6859), (33, 6892), (42, 6937), (49, 6967), (50, 6970), (62, 7003), (71, 7027), (72, 7033), (82, 7078), (87, 7090), (89, 7108), (91, 7117), (103, 7174), (108, 7201), (109, 7204),

Gene: Andrew\_9 Start: 7093, Stop: 7680, Start Num: 5

Candidate Starts for Andrew\_9:

(Start: 5 @7093 has 50 MA's), (48, 7342), (50, 7351), (52, 7357), (60, 7378), (65, 7393), (71, 7408), (72, 7414), (89, 7489), (103, 7555), (108, 7582), (109, 7585),

Gene: AnnaLie\_9 Start: 7111, Stop: 7671, Start Num: 10

Candidate Starts for AnnaLie\_9:

(Start: 10 @7111 has 80 MA's), (35, 7258), (36, 7264), (41, 7288), (57, 7345), (60, 7354), (95, 7498), (96, 7507), (110, 7570), (126, 7639),

Gene: Antrice\_9 Start: 7049, Stop: 7636, Start Num: 5

Candidate Starts for Antrice\_9:

(Start: 5 @7049 has 50 MA's), (33, 7229), (50, 7307), (60, 7334), (65, 7349), (72, 7370), (82, 7415), (87, 7427), (103, 7511), (109, 7541), (114, 7574),

Gene: AppleCider\_11 Start: 9230, Stop: 9802, Start Num: 7

Candidate Starts for AppleCider\_11:

(Start: 7 @9230 has 7 MA's), (34, 9392), (36, 9404), (37, 9410), (47, 9455), (52, 9473), (86, 9584), (88, 9590), (103, 9668), (109, 9698), (118, 9743), (119, 9746), (129, 9788), (131, 9791),

Gene: Armstrong\_7 Start: 6533, Stop: 7093, Start Num: 10

Candidate Starts for Armstrong\_7:

(Start: 10 @6533 has 80 MA's), (84, 6866), (98, 6938),

Gene: Arroyo\_9 Start: 7235, Stop: 7795, Start Num: 10

Candidate Starts for Arroyo\_9:

(Start: 10 @7235 has 80 MA's), (35, 7382), (36, 7388), (41, 7412), (57, 7469), (95, 7622), (96, 7631), (110, 7694), (126, 7763),

Gene: Atlantica\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for Atlantica\_8:

(Start: 5 @6714 has 50 MA's), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: AustinPowers\_7 Start: 6343, Stop: 6924, Start Num: 6

Candidate Starts for AustinPowers\_7:

(Start: 6 @6343 has 52 MA's), (Start: 8 @6352 has 25 MA's), (16, 6397), (24, 6442), (34, 6514), (36, 6526), (37, 6532), (52, 6595), (57, 6610), (62, 6622), (65, 6631), (72, 6652), (84, 6703), (88, 6712), (96, 6763), (97, 6766), (100, 6778), (103, 6790), (109, 6820), (114, 6853), (131, 6913),

Gene: AvGardian\_8 Start: 6822, Stop: 7373, Start Num: 10

Candidate Starts for AvGardian\_8:

(Start: 10 @6822 has 80 MA's), (35, 6969), (36, 6975), (41, 6999), (49, 7032), (54, 7047), (86, 7149), (90, 7176), (110, 7272), (126, 7341),

Gene: Avocadoman\_8 Start: 6823, Stop: 7383, Start Num: 10

Candidate Starts for Avocadoman\_8:

(Start: 10 @6823 has 80 MA's), (35, 6970), (36, 6976), (41, 7000), (57, 7057), (95, 7210), (96, 7219), (110, 7282), (126, 7351),

Gene: AylexOG\_9 Start: 7107, Stop: 7667, Start Num: 10

Candidate Starts for AylexOG\_9:

(Start: 10 @7107 has 80 MA's), (35, 7254), (36, 7260), (41, 7284), (96, 7503), (110, 7566), (126, 7635),

Gene: Azaz\_8 Start: 6765, Stop: 7352, Start Num: 5

Candidate Starts for Azaz\_8:

(Start: 5 @6765 has 50 MA's), (22, 6858), (26, 6888), (33, 6945), (49, 7020), (50, 7023), (60, 7050), (72, 7086), (82, 7131), (89, 7161), (103, 7227), (108, 7254), (109, 7257),

Gene: BAjuniper\_8 Start: 6709, Stop: 7266, Start Num: 10

Candidate Starts for BAjuniper\_8:

(3, 6496), (Start: 10 @6709 has 80 MA's), (35, 6856), (41, 6886), (49, 6919), (52, 6928), (75, 7000), (80, 7024), (95, 7093), (96, 7102), (109, 7159), (110, 7165),

Gene: Babushka\_8 Start: 6762, Stop: 7349, Start Num: 5

Candidate Starts for Babushka\_8:

(Start: 5 @6762 has 50 MA's), (22, 6855), (33, 6942), (42, 6987), (49, 7017), (50, 7020), (60, 7047), (62, 7053), (72, 7083), (82, 7128), (89, 7158), (103, 7224), (108, 7251), (109, 7254),

Gene: BabyDaisy\_9 Start: 6993, Stop: 7544, Start Num: 10

Candidate Starts for BabyDaisy\_9:

(Start: 10 @6993 has 80 MA's), (17, 7026), (35, 7140), (36, 7146), (41, 7170), (49, 7203), (54, 7218), (86, 7320), (95, 7371), (110, 7443), (111, 7455),

Gene: BabyYoda\_8 Start: 7015, Stop: 7566, Start Num: 10

Candidate Starts for BabyYoda\_8:

(Start: 10 @7015 has 80 MA's), (35, 7162), (41, 7192), (49, 7225), (54, 7240), (86, 7342), (95, 7393), (110, 7465), (114, 7492),

Gene: Bachaco\_8 Start: 6906, Stop: 7457, Start Num: 10

Candidate Starts for Bachaco\_8:

(Start: 10 @6906 has 80 MA's), (35, 7053), (36, 7059), (41, 7083), (49, 7116), (54, 7131), (95, 7284), (110, 7356),

Gene: Basilisk\_9 Start: 7430, Stop: 8017, Start Num: 5

Candidate Starts for Basilisk\_9:

(Start: 5 @7430 has 50 MA's), (33, 7610), (47, 7676), (50, 7688), (52, 7694), (60, 7715), (65, 7730), (72, 7751), (103, 7892), (109, 7922),

Gene: Bedetta\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Bedetta\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: Beethoven\_11 Start: 9184, Stop: 9762, Start Num: 6

Candidate Starts for Beethoven\_11:

(Start: 6 @9184 has 52 MA's), (Start: 8 @9193 has 25 MA's), (16, 9238), (36, 9367), (37, 9373), (47, 9418), (52, 9436), (57, 9451), (62, 9463), (84, 9544), (86, 9547), (88, 9553), (96, 9604), (97, 9607), (100, 9619), (103, 9631), (109, 9661), (112, 9682), (118, 9706), (126, 9736), (129, 9751), (131, 9754),

Gene: BelmontSKP\_9 Start: 7111, Stop: 7671, Start Num: 10

Candidate Starts for BelmontSKP\_9:

(Start: 10 @7111 has 80 MA's), (35, 7258), (36, 7264), (41, 7288), (57, 7345), (60, 7354), (95, 7498), (96, 7507), (110, 7570), (126, 7639),

Gene: Bengal\_8 Start: 6765, Stop: 7325, Start Num: 10

Candidate Starts for Bengal\_8:

(Start: 10 @6765 has 80 MA's), (35, 6912), (36, 6918), (41, 6942), (57, 6999), (95, 7152), (96, 7161), (110, 7224), (126, 7293),

Gene: Bennie\_7 Start: 6329, Stop: 6907, Start Num: 6

Candidate Starts for Bennie\_7:

(Start: 6 @6329 has 52 MA's), (Start: 8 @6338 has 25 MA's), (16, 6383), (36, 6512), (37, 6518), (52, 6581), (62, 6608), (86, 6692), (88, 6698), (96, 6749), (97, 6752), (100, 6764), (103, 6776), (109, 6806), (118, 6851), (126, 6881), (129, 6896), (131, 6899),

Gene: Bernstein\_7 Start: 6593, Stop: 7153, Start Num: 10

Candidate Starts for Bernstein\_7:

(Start: 10 @6593 has 80 MA's), (84, 6926), (98, 6998),

Gene: Bible12\_10 Start: 7305, Stop: 7895, Start Num: 5

Candidate Starts for Bible12\_10:

(Start: 5 @7305 has 50 MA's), (14, 7359), (33, 7485), (48, 7554), (50, 7563), (52, 7569), (60, 7590), (69, 7617), (72, 7629), (82, 7674), (103, 7770), (109, 7800), (114, 7833),

Gene: BigMack\_7 Start: 6338, Stop: 6907, Start Num: 8

Candidate Starts for BigMack\_7:

(Start: 6 @6329 has 52 MA's), (Start: 8 @6338 has 25 MA's), (16, 6383), (36, 6512), (37, 6518), (52, 6581), (59, 6602), (62, 6608), (86, 6692), (88, 6698), (96, 6749), (97, 6752), (100, 6764), (103, 6776), (109, 6806), (118, 6851), (126, 6881), (129, 6896), (131, 6899),

Gene: Bimmel\_52 Start: 30092, Stop: 30691, Start Num: 11

Candidate Starts for Bimmel\_52:

(Start: 11 @30092 has 4 MA's), (16, 30116), (51, 30311), (74, 30371), (83, 30404), (97, 30473), (104, 30503), (107, 30533),

Gene: Bodacious\_7 Start: 6336, Stop: 6905, Start Num: 8

Candidate Starts for Bodacious\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: Brahms\_7 Start: 6533, Stop: 7093, Start Num: 10

Candidate Starts for Brahms\_7:

(Start: 10 @6533 has 80 MA's), (84, 6866), (98, 6938),

Gene: Bridgette\_9 Start: 7210, Stop: 7803, Start Num: 9

Candidate Starts for Bridgette\_9:

(Start: 9 @7210 has 16 MA's), (12, 7222), (21, 7267), (24, 7291), (36, 7369), (37, 7375), (39, 7390), (40, 7393), (57, 7453), (68, 7486), (96, 7627), (97, 7630), (116, 7729), (123, 7750),

Gene: BrotherBLo\_11 Start: 9191, Stop: 9769, Start Num: 6

Candidate Starts for BrotherBLo\_11:

(Start: 6 @9191 has 52 MA's), (Start: 8 @9200 has 25 MA's), (16, 9245), (36, 9374), (37, 9380), (52, 9443), (55, 9452), (57, 9458), (59, 9464), (62, 9470), (72, 9500), (86, 9554), (88, 9560), (96, 9611), (97, 9614), (100, 9626), (103, 9638), (109, 9668), (112, 9689), (118, 9713), (126, 9743), (129, 9758), (131, 9761),

Gene: Brynnie\_9 Start: 7242, Stop: 7829, Start Num: 5

Candidate Starts for Brynnie\_9:

(Start: 5 @7242 has 50 MA's), (33, 7422), (47, 7488), (50, 7500), (52, 7506), (60, 7527), (65, 7542), (72, 7563), (103, 7704), (109, 7734),

Gene: BubbaBear\_8 Start: 6756, Stop: 7316, Start Num: 10

Candidate Starts for BubbaBear\_8:

(Start: 10 @6756 has 80 MA's), (17, 6789), (35, 6903), (36, 6909), (41, 6933), (57, 6990), (60, 6999), (84, 7089), (110, 7215), (126, 7284),

Gene: Buldak\_8 Start: 7041, Stop: 7601, Start Num: 10

Candidate Starts for Buldak\_8:

(Start: 10 @7041 has 80 MA's), (35, 7191), (36, 7197), (52, 7263), (54, 7269), (57, 7278), (86, 7377), (95, 7428), (98, 7446), (109, 7494), (110, 7500),

Gene: Burritobowl\_8 Start: 6792, Stop: 7352, Start Num: 10

Candidate Starts for Burritobowl\_8:

(Start: 10 @6792 has 80 MA's), (35, 6939), (36, 6945), (41, 6969), (57, 7026), (60, 7035), (95, 7179), (96, 7188), (110, 7251), (126, 7320),

Gene: CallieOMalley\_11 Start: 9230, Stop: 9802, Start Num: 7

Candidate Starts for CallieOMalley\_11:

(Start: 7 @9230 has 7 MA's), (34, 9392), (36, 9404), (37, 9410), (47, 9455), (52, 9473), (86, 9584), (88, 9590), (103, 9668), (109, 9698), (118, 9743), (119, 9746), (129, 9788), (131, 9791),

Gene: Camara\_8 Start: 6715, Stop: 7302, Start Num: 5

Candidate Starts for Camara\_8:

(Start: 5 @6715 has 50 MA's), (33, 6895), (49, 6970), (50, 6973), (62, 7006), (71, 7030), (72, 7036), (82, 7081), (87, 7093), (89, 7111), (91, 7120), (103, 7177), (108, 7204), (109, 7207),

Gene: CanFranMach\_8 Start: 6780, Stop: 7340, Start Num: 10

Candidate Starts for CanFranMach\_8:

(Start: 10 @6780 has 80 MA's), (17, 6813), (36, 6933), (41, 6957), (86, 7116), (90, 7143), (110, 7239), (126, 7308),

Gene: Canowicakte\_11 Start: 9265, Stop: 9837, Start Num: 7

Candidate Starts for Canowicakte\_11:

(Start: 7 @9265 has 7 MA's), (34, 9427), (36, 9439), (37, 9445), (47, 9490), (86, 9619), (88, 9625), (103, 9703), (109, 9733), (118, 9778), (119, 9781), (129, 9823), (131, 9826),

Gene: Carpal\_11 Start: 9191, Stop: 9769, Start Num: 6

Candidate Starts for Carpal\_11:

(Start: 6 @9191 has 52 MA's), (Start: 8 @9200 has 25 MA's), (16, 9245), (36, 9374), (37, 9380), (47, 9425), (52, 9443), (57, 9458), (62, 9470), (84, 9551), (86, 9554), (88, 9560), (96, 9611), (97, 9614), (100, 9626), (103, 9638), (109, 9668), (112, 9689), (118, 9713), (126, 9743), (129, 9758), (131, 9761),

Gene: Cashington\_8 Start: 6782, Stop: 7342, Start Num: 10

Candidate Starts for Cashington\_8:

(Start: 10 @6782 has 80 MA's), (35, 6929), (36, 6935), (41, 6959), (96, 7178), (110, 7241), (126, 7310),

Gene: Celaena\_8 Start: 6843, Stop: 7394, Start Num: 10

Candidate Starts for Celaena\_8:

(Start: 10 @6843 has 80 MA's), (35, 6990), (36, 6996), (41, 7020), (49, 7053), (54, 7068), (95, 7221), (110, 7293),

Gene: Che9c\_8 Start: 6622, Stop: 7134, Start Num: 20

Candidate Starts for Che9c\_8:

(1, 6289), (2, 6328), (4, 6463), (13, 6586), (Start: 20 @6622 has 1 MA's), (28, 6673), (32, 6709), (33, 6718), (36, 6736), (41, 6763), (47, 6787), (48, 6790), (49, 6796), (62, 6832), (94, 6970), (95, 6973), (113, 7072), (121, 7099),

Gene: ChewChew\_7 Start: 6326, Stop: 6904, Start Num: 6

Candidate Starts for ChewChew\_7:

(Start: 6 @6326 has 52 MA's), (Start: 8 @6335 has 25 MA's), (16, 6380), (36, 6509), (37, 6515), (52, 6578), (57, 6593), (62, 6605), (72, 6635), (84, 6686), (86, 6689), (88, 6695), (96, 6746), (97, 6749), (103, 6773), (109, 6803), (118, 6848), (126, 6878), (129, 6893), (131, 6896),

Gene: Chickaboom\_8 Start: 6787, Stop: 7374, Start Num: 5

Candidate Starts for Chickaboom\_8:

(Start: 5 @6787 has 50 MA's), (33, 6967), (47, 7033), (50, 7045), (52, 7051), (60, 7072), (65, 7087), (72, 7108), (103, 7249), (109, 7279),

Gene: Chicken\_9 Start: 7090, Stop: 7677, Start Num: 5

Candidate Starts for Chicken\_9:

(Start: 5 @7090 has 50 MA's), (33, 7270), (44, 7318), (50, 7348), (52, 7354), (60, 7375), (65, 7390), (72, 7411), (78, 7432), (85, 7462), (103, 7552), (114, 7615),

Gene: ChiliPepper\_8 Start: 6996, Stop: 7553, Start Num: 10

Candidate Starts for ChiliPepper\_8:

(Start: 10 @6996 has 80 MA's), (35, 7143), (41, 7173), (84, 7326), (96, 7389), (110, 7452), (126, 7521),

Gene: Cholula\_11 Start: 9236, Stop: 9814, Start Num: 6

Candidate Starts for Cholula\_11:

(Start: 6 @9236 has 52 MA's), (Start: 8 @9245 has 25 MA's), (16, 9290), (36, 9419), (37, 9425), (47, 9470), (52, 9488), (57, 9503), (62, 9515), (84, 9596), (86, 9599), (88, 9605), (96, 9656), (97, 9659), (100, 9671), (103, 9683), (109, 9713), (112, 9734), (118, 9758), (126, 9788), (129, 9803), (131, 9806),

Gene: Chridison\_7 Start: 6343, Stop: 6924, Start Num: 6

Candidate Starts for Chridison\_7:

(Start: 6 @6343 has 52 MA's), (Start: 8 @6352 has 25 MA's), (16, 6397), (24, 6442), (34, 6514), (36, 6526), (37, 6532), (52, 6595), (57, 6610), (62, 6622), (65, 6631), (72, 6652), (84, 6703), (88, 6712), (96, 6763), (97, 6766), (100, 6778), (103, 6790), (109, 6820), (114, 6853), (131, 6913),

Gene: Christian\_7 Start: 6327, Stop: 6905, Start Num: 6

Candidate Starts for Christian\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (57, 6594), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: ChuckDuck\_9 Start: 7169, Stop: 7759, Start Num: 9

Candidate Starts for ChuckDuck\_9:

(Start: 9 @7169 has 16 MA's), (12, 7181), (21, 7226), (37, 7334), (83, 7517), (86, 7523), (96, 7583), (97, 7586), (116, 7685), (123, 7706),

Gene: Clayda5\_7 Start: 6533, Stop: 7093, Start Num: 10

Candidate Starts for Clayda5\_7:

(Start: 10 @6533 has 80 MA's), (84, 6866), (98, 6938),

Gene: CliffHanger\_9 Start: 6740, Stop: 7300, Start Num: 10

Candidate Starts for CliffHanger\_9:

(Start: 10 @6740 has 80 MA's), (35, 6890), (36, 6896), (86, 7076), (100, 7151), (110, 7199),

Gene: Coltrane\_7 Start: 6533, Stop: 7093, Start Num: 10

Candidate Starts for Coltrane\_7:

(Start: 10 @6533 has 80 MA's), (84, 6866), (98, 6938),

Gene: Colusalem\_9 Start: 7141, Stop: 7731, Start Num: 5

Candidate Starts for Colusalem\_9:

(Start: 5 @7141 has 50 MA's), (14, 7195), (33, 7321), (48, 7390), (50, 7399), (52, 7405), (60, 7426), (69, 7453), (72, 7465), (82, 7510), (103, 7606), (109, 7636), (114, 7669),

Gene: Constance\_9 Start: 7215, Stop: 7805, Start Num: 9

Candidate Starts for Constance\_9:

(Start: 9 @7215 has 16 MA's), (12, 7227), (21, 7272), (86, 7569), (96, 7629), (97, 7632), (116, 7731), (123, 7752), (133, 7791),

Gene: Coral\_9 Start: 7141, Stop: 7731, Start Num: 5

Candidate Starts for Coral\_9:

(Start: 5 @7141 has 50 MA's), (14, 7195), (33, 7321), (48, 7390), (50, 7399), (52, 7405), (60, 7426), (69, 7453), (72, 7465), (82, 7510), (103, 7606), (109, 7636), (114, 7669),

Gene: Cote\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Cote\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: CristinaYang\_7 Start: 6336, Stop: 6905, Start Num: 8

Candidate Starts for CristinaYang\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: CroZenni\_8 Start: 6765, Stop: 7325, Start Num: 10

Candidate Starts for CroZenni\_8:

(Start: 10 @6765 has 80 MA's), (35, 6912), (36, 6918), (41, 6942), (57, 6999), (60, 7008), (95, 7152), (96, 7161), (110, 7224), (126, 7293),

Gene: CupcakePrincess\_8 Start: 6742, Stop: 7302, Start Num: 10

Candidate Starts for CupcakePrincess\_8:

(Start: 10 @6742 has 80 MA's), (35, 6889), (36, 6895), (41, 6919), (96, 7138), (110, 7201), (126, 7270),

Gene: Cygnet\_9 Start: 7088, Stop: 7678, Start Num: 5

Candidate Starts for Cygnet\_9:

(Start: 5 @7088 has 50 MA's), (50, 7346), (60, 7373), (62, 7379), (65, 7388), (72, 7409), (82, 7457), (87, 7469), (103, 7553), (109, 7583),

Gene: Daiboju\_7 Start: 6353, Stop: 6925, Start Num: 8

Candidate Starts for Daiboju\_7:

(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37, 6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131, 6914),

Gene: Damocles\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Damocles\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: DanHam62\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for DanHam62\_8:

(Start: 5 @6714 has 50 MA's), (30, 6861), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Daob\_10 Start: 7305, Stop: 7895, Start Num: 5

Candidate Starts for Daob\_10:

(Start: 5 @7305 has 50 MA's), (14, 7359), (33, 7485), (48, 7554), (50, 7563), (52, 7569), (60, 7590), (69, 7617), (72, 7629), (82, 7674), (103, 7770), (109, 7800), (114, 7833),

Gene: DickRichards\_8 Start: 7259, Stop: 7819, Start Num: 10

Candidate Starts for DickRichards\_8:

(Start: 10 @7259 has 80 MA's), (35, 7406), (36, 7412), (41, 7436), (57, 7493), (60, 7502), (95, 7646), (96, 7655), (110, 7718), (126, 7787),

Gene: Didgeridoo\_9 Start: 6993, Stop: 7544, Start Num: 10

Candidate Starts for Didgeridoo\_9:

(Start: 10 @6993 has 80 MA's), (17, 7026), (35, 7140), (36, 7146), (41, 7170), (49, 7203), (54, 7218), (86, 7320), (95, 7371), (110, 7443), (111, 7455), (114, 7470),

Gene: Dino\_11 Start: 9190, Stop: 9768, Start Num: 6

Candidate Starts for Dino\_11:

(Start: 6 @9190 has 52 MA's), (Start: 8 @9199 has 25 MA's), (16, 9244), (36, 9373), (37, 9379), (47, 9424), (52, 9442), (57, 9457), (62, 9469), (84, 9550), (86, 9553), (88, 9559), (96, 9610), (97, 9613), (100, 9625), (103, 9637), (109, 9667), (112, 9688), (118, 9712), (126, 9742), (129, 9757), (131, 9760),

Gene: DirtyBubble\_8 Start: 7014, Stop: 7574, Start Num: 10

Candidate Starts for DirtyBubble\_8:

(Start: 10 @7014 has 80 MA's), (35, 7161), (36, 7167), (41, 7191), (57, 7248), (95, 7401), (96, 7410), (110, 7473), (114, 7500), (133, 7569),

Gene: Dismas\_8 Start: 6996, Stop: 7553, Start Num: 10

Candidate Starts for Dismas\_8:

(Start: 10 @6996 has 80 MA's), (35, 7143), (41, 7173), (84, 7326), (96, 7389), (110, 7452), (126, 7521),

Gene: Doobus\_8 Start: 6987, Stop: 7556, Start Num: 10

Candidate Starts for Doobus\_8:

(Start: 10 @6987 has 80 MA's), (35, 7134), (36, 7140), (95, 7383), (96, 7392), (126, 7524),

Gene: DrRobert\_7 Start: 6327, Stop: 6905, Start Num: 6

Candidate Starts for DrRobert\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (57, 6594), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: DreamTeam\_7 Start: 6382, Stop: 6951, Start Num: 8

Candidate Starts for DreamTeam\_7:

(Start: 6 @6373 has 52 MA's), (Start: 8 @6382 has 25 MA's), (16, 6427), (36, 6556), (37, 6562), (62, 6652), (73, 6685), (84, 6733), (88, 6742), (96, 6793), (97, 6796), (100, 6808), (103, 6820), (109, 6850), (112, 6871), (118, 6895), (126, 6925), (129, 6940), (131, 6943),

Gene: Dubu\_8 Start: 6313, Stop: 6891, Start Num: 9

Candidate Starts for Dubu\_8:

(Start: 9 @6313 has 16 MA's), (24, 6391), (29, 6409), (51, 6529), (86, 6640), (93, 6682), (110, 6784), (115, 6814),

Gene: Eden\_7 Start: 6625, Stop: 7182, Start Num: 10

Candidate Starts for Eden\_7:

(Start: 10 @6625 has 80 MA's), (36, 6778), (54, 6850), (95, 7009), (98, 7027),

Gene: Eesa\_9 Start: 7305, Stop: 7892, Start Num: 5

Candidate Starts for Eesa\_9:

(Start: 5 @7305 has 50 MA's), (27, 7431), (33, 7485), (44, 7533), (50, 7563), (52, 7569), (60, 7590), (65, 7605), (72, 7626), (78, 7647), (85, 7677), (92, 7719), (103, 7767), (114, 7830),

Gene: Eileen\_9 Start: 7175, Stop: 7768, Start Num: 9

Candidate Starts for Eileen\_9:

(Start: 9 @7175 has 16 MA's), (12, 7187), (21, 7232), (36, 7334), (37, 7340), (39, 7355), (40, 7358), (57, 7418), (68, 7451), (96, 7592), (123, 7715),

Gene: Elva\_9 Start: 7080, Stop: 7631, Start Num: 10

Candidate Starts for Elva\_9:

(Start: 10 @7080 has 80 MA's), (35, 7227), (49, 7290), (54, 7305), (86, 7407), (90, 7434), (95, 7458), (96, 7467), (110, 7530), (114, 7557),

Gene: EstebanJulior\_7 Start: 6380, Stop: 6949, Start Num: 8

Candidate Starts for EstebanJulior\_7:

(Start: 6 @6371 has 52 MA's), (Start: 8 @6380 has 25 MA's), (16, 6425), (36, 6554), (37, 6560), (52, 6623), (62, 6650), (86, 6734), (88, 6740), (96, 6791), (97, 6794), (100, 6806), (103, 6818), (109, 6848), (118, 6893), (126, 6923), (129, 6938), (131, 6941),

Gene: Eula\_8 Start: 6763, Stop: 7323, Start Num: 10

Candidate Starts for Eula\_8:

(Start: 10 @6763 has 80 MA's), (35, 6910), (36, 6916), (41, 6940), (96, 7159), (110, 7222), (126, 7291),

Gene: Eunoia\_7 Start: 6351, Stop: 6923, Start Num: 8

Candidate Starts for Eunoia\_7:

(Start: 6 @6342 has 52 MA's), (Start: 8 @6351 has 25 MA's), (16, 6396), (24, 6441), (34, 6513), (36, 6525), (37, 6531), (62, 6621), (72, 6651), (84, 6702), (88, 6711), (96, 6762), (97, 6765), (100, 6777), (103, 6789), (109, 6819), (114, 6852), (131, 6912),

Gene: Finalfrontier\_9 Start: 7274, Stop: 7834, Start Num: 10  
Candidate Starts for Finalfrontier\_9:  
(Start: 10 @7274 has 80 MA's), (35, 7421), (36, 7427), (41, 7451), (96, 7670), (110, 7733), (126, 7802),

Gene: Fingolfin\_8 Start: 6715, Stop: 7302, Start Num: 5  
Candidate Starts for Fingolfin\_8:  
(Start: 5 @6715 has 50 MA's), (33, 6895), (42, 6940), (49, 6970), (50, 6973), (62, 7006), (71, 7030),  
(72, 7036), (82, 7081), (87, 7093), (91, 7120), (103, 7177), (108, 7204), (109, 7207),

Gene: FlameThrower\_8 Start: 6731, Stop: 7282, Start Num: 10  
Candidate Starts for FlameThrower\_8:  
(Start: 10 @6731 has 80 MA's), (35, 6878), (36, 6884), (41, 6908), (49, 6941), (54, 6956), (95, 7109),  
(110, 7181),

Gene: Fluke\_11 Start: 9232, Stop: 9810, Start Num: 6  
Candidate Starts for Fluke\_11:  
(Start: 6 @9232 has 52 MA's), (Start: 8 @9241 has 25 MA's), (16, 9286), (36, 9415), (37, 9421), (47,  
9466), (52, 9484), (57, 9499), (62, 9511), (86, 9595), (88, 9601), (96, 9652), (97, 9655), (100, 9667),  
(103, 9679), (109, 9709), (112, 9730), (118, 9754), (126, 9784), (129, 9799), (131, 9802),

Gene: FosterFrank\_9 Start: 7173, Stop: 7763, Start Num: 9  
Candidate Starts for FosterFrank\_9:  
(Start: 9 @7173 has 16 MA's), (12, 7185), (21, 7230), (86, 7527), (96, 7587), (97, 7590), (116, 7689),  
(123, 7710), (133, 7749),

Gene: Franklin22\_7 Start: 6606, Stop: 7163, Start Num: 10  
Candidate Starts for Franklin22\_7:  
(Start: 10 @6606 has 80 MA's), (36, 6759), (54, 6831), (86, 6939), (95, 6990), (98, 7008), (109, 7056),  
(125, 7128),

Gene: Gack\_7 Start: 6676, Stop: 7233, Start Num: 10  
Candidate Starts for Gack\_7:  
(Start: 10 @6676 has 80 MA's), (36, 6829), (47, 6877), (98, 7078),

Gene: Galaxy\_9 Start: 7113, Stop: 7700, Start Num: 5  
Candidate Starts for Galaxy\_9:  
(Start: 5 @7113 has 50 MA's), (33, 7293), (47, 7359), (52, 7377), (60, 7398), (65, 7413), (72, 7434),  
(103, 7575), (109, 7605),

Gene: Gisselle\_7 Start: 6382, Stop: 6951, Start Num: 8  
Candidate Starts for Gisselle\_7:  
(Start: 6 @6373 has 52 MA's), (Start: 8 @6382 has 25 MA's), (16, 6427), (36, 6556), (37, 6562), (62,  
6652), (73, 6685), (84, 6733), (88, 6742), (96, 6793), (97, 6796), (100, 6808), (103, 6820), (109, 6850),  
(112, 6871), (118, 6895), (126, 6925), (129, 6940), (131, 6943),

Gene: Glenn\_11 Start: 9251, Stop: 9820, Start Num: 8  
Candidate Starts for Glenn\_11:  
(Start: 6 @9242 has 52 MA's), (Start: 8 @9251 has 25 MA's), (16, 9296), (36, 9425), (37, 9431), (47,  
9476), (52, 9494), (57, 9509), (59, 9515), (62, 9521), (86, 9605), (88, 9611), (96, 9662), (97, 9665),  
(103, 9689), (109, 9719), (118, 9764), (126, 9794), (129, 9809), (131, 9812),

Gene: GlobiWarming\_9 Start: 7170, Stop: 7760, Start Num: 9  
Candidate Starts for GlobiWarming\_9:

(Start: 9 @7170 has 16 MA's), (12, 7182), (21, 7227), (83, 7518), (86, 7524), (96, 7584), (97, 7587), (116, 7686), (123, 7707),

Gene: Glotell\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for Glotell\_8:

(Start: 5 @6714 has 50 MA's), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: GramZayde\_9 Start: 7141, Stop: 7731, Start Num: 5

Candidate Starts for GramZayde\_9:

(Start: 5 @7141 has 50 MA's), (14, 7195), (33, 7321), (48, 7390), (50, 7399), (52, 7405), (60, 7426), (69, 7453), (72, 7465), (82, 7510), (103, 7606), (109, 7636), (114, 7669),

Gene: Gravel\_10 Start: 7301, Stop: 7888, Start Num: 5

Candidate Starts for Gravel\_10:

(Start: 5 @7301 has 50 MA's), (33, 7481), (44, 7529), (50, 7559), (52, 7565), (60, 7586), (63, 7598), (65, 7601), (72, 7622), (78, 7643), (92, 7715), (103, 7763), (114, 7826), (120, 7844),

Gene: Graynor\_11 Start: 9254, Stop: 9826, Start Num: 7

Candidate Starts for Graynor\_11:

(Start: 7 @9254 has 7 MA's), (34, 9416), (36, 9428), (37, 9434), (47, 9479), (52, 9497), (86, 9608), (88, 9614), (103, 9692), (109, 9722), (118, 9767), (119, 9770), (129, 9812), (131, 9815),

Gene: GreenHearts\_11 Start: 9314, Stop: 9892, Start Num: 6

Candidate Starts for GreenHearts\_11:

(Start: 6 @9314 has 52 MA's), (Start: 8 @9323 has 25 MA's), (16, 9368), (34, 9485), (36, 9497), (37, 9503), (52, 9566), (62, 9593), (86, 9677), (88, 9683), (92, 9713), (103, 9761), (109, 9791), (131, 9884),

Gene: Greenhouse\_11 Start: 9248, Stop: 9817, Start Num: 8

Candidate Starts for Greenhouse\_11:

(Start: 6 @9239 has 52 MA's), (Start: 8 @9248 has 25 MA's), (16, 9293), (34, 9410), (36, 9422), (37, 9428), (52, 9491), (86, 9602), (88, 9608), (92, 9638), (103, 9686), (109, 9716), (131, 9809),

Gene: HamCheese\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for HamCheese\_8:

(Start: 5 @6714 has 50 MA's), (30, 6861), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: HannahPhantana\_10 Start: 7305, Stop: 7895, Start Num: 5

Candidate Starts for HannahPhantana\_10:

(Start: 5 @7305 has 50 MA's), (14, 7359), (33, 7485), (48, 7554), (50, 7563), (52, 7569), (60, 7590), (69, 7617), (72, 7629), (82, 7674), (103, 7770), (109, 7800), (114, 7833),

Gene: HeadNerd\_7 Start: 6329, Stop: 6907, Start Num: 6

Candidate Starts for HeadNerd\_7:

(Start: 6 @6329 has 52 MA's), (Start: 8 @6338 has 25 MA's), (16, 6383), (36, 6512), (37, 6518), (52, 6581), (62, 6608), (86, 6692), (88, 6698), (96, 6749), (97, 6752), (100, 6764), (103, 6776), (109, 6806), (118, 6851), (126, 6881), (129, 6896), (131, 6899),

Gene: Henrique\_9 Start: 7171, Stop: 7764, Start Num: 9

Candidate Starts for Henrique\_9:

(Start: 9 @7171 has 16 MA's), (12, 7183), (21, 7228), (24, 7252), (36, 7330), (37, 7336), (39, 7351), (40, 7354), (57, 7414), (68, 7447), (96, 7588), (97, 7591), (116, 7690), (123, 7711),

Gene: Herb\_7 Start: 6353, Stop: 6925, Start Num: 8

Candidate Starts for Herb\_7:

(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37, 6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131, 6914),

Gene: HotPotato\_9 Start: 7175, Stop: 7768, Start Num: 9

Candidate Starts for HotPotato\_9:

(Start: 9 @7175 has 16 MA's), (12, 7187), (21, 7232), (36, 7334), (37, 7340), (39, 7355), (40, 7358), (57, 7418), (68, 7451), (96, 7592), (97, 7595), (123, 7715),

Gene: Huckleberry\_7 Start: 6338, Stop: 6907, Start Num: 8

Candidate Starts for Huckleberry\_7:

(Start: 6 @6329 has 52 MA's), (Start: 8 @6338 has 25 MA's), (16, 6383), (36, 6512), (37, 6518), (52, 6581), (62, 6608), (86, 6692), (88, 6698), (96, 6749), (97, 6752), (100, 6764), (103, 6776), (109, 6806), (118, 6851), (126, 6881), (129, 6896), (131, 6899),

Gene: HunterDalle\_7 Start: 6342, Stop: 6923, Start Num: 6

Candidate Starts for HunterDalle\_7:

(Start: 6 @6342 has 52 MA's), (Start: 8 @6351 has 25 MA's), (16, 6396), (24, 6441), (34, 6513), (36, 6525), (37, 6531), (62, 6621), (65, 6630), (72, 6651), (84, 6702), (88, 6711), (96, 6762), (97, 6765), (100, 6777), (103, 6789), (109, 6819), (114, 6852), (131, 6912),

Gene: Huntingdon\_11 Start: 9225, Stop: 9803, Start Num: 6

Candidate Starts for Huntingdon\_11:

(Start: 6 @9225 has 52 MA's), (Start: 8 @9234 has 25 MA's), (16, 9279), (34, 9396), (36, 9408), (37, 9414), (52, 9477), (88, 9594), (103, 9672), (109, 9702), (131, 9795),

Gene: Ibantik\_72 Start: 34097, Stop: 34657, Start Num: 11

Candidate Starts for Ibantik\_72:

(Start: 11 @34097 has 4 MA's), (16, 34121), (18, 34133), (56, 34331), (86, 34421), (100, 34496), (105, 34520), (117, 34592),

Gene: Icarian\_9 Start: 7006, Stop: 7557, Start Num: 10

Candidate Starts for Icarian\_9:

(Start: 10 @7006 has 80 MA's), (17, 7039), (35, 7153), (41, 7183), (49, 7216), (54, 7231), (86, 7333), (95, 7384), (110, 7456), (114, 7483), (133, 7552),

Gene: Immaculata\_11 Start: 9236, Stop: 9814, Start Num: 6

Candidate Starts for Immaculata\_11:

(Start: 6 @9236 has 52 MA's), (Start: 8 @9245 has 25 MA's), (16, 9290), (36, 9419), (37, 9425), (47, 9470), (52, 9488), (57, 9503), (62, 9515), (84, 9596), (86, 9599), (88, 9605), (96, 9656), (97, 9659), (100, 9671), (103, 9683), (109, 9713), (112, 9734), (118, 9758), (126, 9788), (129, 9803), (131, 9806),

Gene: IndyLu\_8 Start: 6817, Stop: 7368, Start Num: 10

Candidate Starts for IndyLu\_8:

(Start: 10 @6817 has 80 MA's), (17, 6850), (35, 6964), (36, 6970), (41, 6994), (54, 7042), (86, 7144), (95, 7195), (110, 7267), (111, 7279),

Gene: Jabb\_8 Start: 6742, Stop: 7302, Start Num: 10

Candidate Starts for Jabb\_8:

(Start: 10 @6742 has 80 MA's), (35, 6889), (36, 6895), (41, 6919), (96, 7138), (110, 7201), (126, 7270),

Gene: Jamun\_9 Start: 7454, Stop: 8041, Start Num: 5

Candidate Starts for Jamun\_9:

(Start: 5 @7454 has 50 MA's), (33, 7634), (47, 7700), (50, 7712), (52, 7718), (60, 7739), (65, 7754), (72, 7775), (81, 7811), (103, 7916), (109, 7946),

Gene: Jerole\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Jerole\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: Joann\_11 Start: 9217, Stop: 9795, Start Num: 6

Candidate Starts for Joann\_11:

(Start: 6 @9217 has 52 MA's), (Start: 8 @9226 has 25 MA's), (16, 9271), (34, 9388), (36, 9400), (37, 9406), (52, 9469), (62, 9496), (86, 9580), (88, 9586), (92, 9616), (103, 9664), (109, 9694), (131, 9787),

Gene: Johnathan\_8 Start: 6765, Stop: 7325, Start Num: 10

Candidate Starts for Johnathan\_8:

(Start: 10 @6765 has 80 MA's), (35, 6912), (36, 6918), (41, 6942), (57, 6999), (95, 7152), (96, 7161), (110, 7224), (126, 7293),

Gene: Jovita\_8 Start: 6864, Stop: 7424, Start Num: 10

Candidate Starts for Jovita\_8:

(Start: 10 @6864 has 80 MA's), (35, 7011), (36, 7017), (41, 7041), (96, 7260), (110, 7323), (126, 7392),

Gene: Judy\_9 Start: 7214, Stop: 7804, Start Num: 9

Candidate Starts for Judy\_9:

(Start: 9 @7214 has 16 MA's), (12, 7226), (21, 7271), (83, 7562), (86, 7568), (96, 7628), (97, 7631), (116, 7730), (123, 7751),

Gene: Jumboset\_11 Start: 9185, Stop: 9763, Start Num: 6

Candidate Starts for Jumboset\_11:

(Start: 6 @9185 has 52 MA's), (Start: 8 @9194 has 25 MA's), (16, 9239), (36, 9368), (37, 9374), (47, 9419), (52, 9437), (57, 9452), (62, 9464), (86, 9548), (88, 9554), (96, 9605), (97, 9608), (103, 9632), (109, 9662), (112, 9683), (118, 9707), (126, 9737), (129, 9752), (131, 9755),

Gene: Juno112\_8 Start: 6715, Stop: 7302, Start Num: 5

Candidate Starts for Juno112\_8:

(Start: 5 @6715 has 50 MA's), (33, 6895), (42, 6940), (49, 6970), (50, 6973), (62, 7006), (71, 7030), (72, 7036), (82, 7081), (87, 7093), (91, 7120), (103, 7177), (108, 7204), (109, 7207),

Gene: KHumphrey\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for KHumphrey\_8:

(Start: 5 @6714 has 50 MA's), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Kalizoi\_11 Start: 9184, Stop: 9762, Start Num: 6

Candidate Starts for Kalizoi\_11:

(Start: 6 @9184 has 52 MA's), (Start: 8 @9193 has 25 MA's), (16, 9238), (36, 9367), (37, 9373), (47, 9418), (52, 9436), (57, 9451), (62, 9463), (84, 9544), (86, 9547), (88, 9553), (96, 9604), (97, 9607), (100, 9619), (103, 9631), (109, 9661), (112, 9682), (118, 9706), (126, 9736), (129, 9751), (131, 9754),

Gene: Kamdara\_8 Start: 6995, Stop: 7552, Start Num: 10  
Candidate Starts for Kamdara\_8:  
(Start: 10 @6995 has 80 MA's), (35, 7142), (41, 7172), (84, 7325), (96, 7388), (110, 7451), (126, 7520),

Gene: Karkharias\_9 Start: 7171, Stop: 7764, Start Num: 9  
Candidate Starts for Karkharias\_9:  
(Start: 9 @7171 has 16 MA's), (12, 7183), (21, 7228), (36, 7330), (37, 7336), (39, 7351), (40, 7354),  
(68, 7447), (96, 7588), (97, 7591), (116, 7690), (123, 7711),

Gene: Kate33\_8 Start: 6816, Stop: 7367, Start Num: 10  
Candidate Starts for Kate33\_8:  
(Start: 10 @6816 has 80 MA's), (17, 6849), (35, 6963), (36, 6969), (41, 6993), (49, 7026), (54, 7041),  
(86, 7143), (95, 7194), (110, 7266), (111, 7278),

Gene: Katzastrophic\_8 Start: 6906, Stop: 7457, Start Num: 10  
Candidate Starts for Katzastrophic\_8:  
(Start: 10 @6906 has 80 MA's), (35, 7053), (36, 7059), (41, 7083), (49, 7116), (54, 7131), (95, 7284),  
(110, 7356),

Gene: KayMoney\_9 Start: 7171, Stop: 7761, Start Num: 9  
Candidate Starts for KayMoney\_9:  
(Start: 9 @7171 has 16 MA's), (12, 7183), (21, 7228), (37, 7336), (83, 7519), (86, 7525), (96, 7585),  
(97, 7588), (116, 7687), (123, 7708),

Gene: KendraB23\_10 Start: 7302, Stop: 7889, Start Num: 5  
Candidate Starts for KendraB23\_10:  
(Start: 5 @7302 has 50 MA's), (33, 7482), (44, 7530), (50, 7560), (52, 7566), (60, 7587), (63, 7599),  
(65, 7602), (72, 7623), (78, 7644), (92, 7716), (103, 7764), (114, 7827), (120, 7845),

Gene: Kenzers\_8 Start: 6779, Stop: 7339, Start Num: 10  
Candidate Starts for Kenzers\_8:  
(Start: 10 @6779 has 80 MA's), (17, 6812), (35, 6926), (36, 6932), (41, 6956), (57, 7013), (60, 7022),  
(84, 7112), (110, 7238), (126, 7307),

Gene: Kepler\_9 Start: 7140, Stop: 7730, Start Num: 5  
Candidate Starts for Kepler\_9:  
(Start: 5 @7140 has 50 MA's), (14, 7194), (33, 7320), (48, 7389), (50, 7398), (52, 7404), (60, 7425),  
(69, 7452), (72, 7464), (82, 7509), (103, 7605), (109, 7635), (114, 7668),

Gene: Kieran\_8 Start: 6999, Stop: 7556, Start Num: 10  
Candidate Starts for Kieran\_8:  
(Start: 10 @6999 has 80 MA's), (35, 7146), (41, 7176), (84, 7329), (96, 7392), (110, 7455), (126, 7524),

Gene: KingBob\_7 Start: 6353, Stop: 6925, Start Num: 8  
Candidate Starts for KingBob\_7:  
(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37,  
6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131,  
6914),

Gene: Kittykat\_7 Start: 6370, Stop: 6948, Start Num: 6  
Candidate Starts for Kittykat\_7:

(Start: 6 @6370 has 52 MA's), (Start: 8 @6379 has 25 MA's), (16, 6424), (36, 6553), (62, 6649), (73, 6682), (84, 6730), (88, 6739), (96, 6790), (97, 6793), (100, 6805), (103, 6817), (109, 6847), (112, 6868), (118, 6892), (126, 6922), (131, 6940),

Gene: Korra\_11 Start: 9199, Stop: 9768, Start Num: 8

Candidate Starts for Korra\_11:

(Start: 6 @9190 has 52 MA's), (Start: 8 @9199 has 25 MA's), (16, 9244), (36, 9373), (37, 9379), (47, 9424), (52, 9442), (57, 9457), (62, 9469), (84, 9550), (86, 9553), (88, 9559), (96, 9610), (97, 9613), (100, 9625), (103, 9637), (109, 9667), (112, 9688), (118, 9712), (126, 9742), (129, 9757), (131, 9760),

Gene: Kuleana\_9 Start: 7105, Stop: 7692, Start Num: 5

Candidate Starts for Kuleana\_9:

(Start: 5 @7105 has 50 MA's), (33, 7285), (48, 7354), (49, 7360), (50, 7363), (60, 7390), (72, 7426), (103, 7567), (109, 7597),

Gene: Lahqtemish\_8 Start: 6855, Stop: 7412, Start Num: 10

Candidate Starts for Lahqtemish\_8:

(Start: 10 @6855 has 80 MA's), (35, 7002), (36, 7008), (41, 7032), (86, 7188), (95, 7239), (110, 7311), (111, 7323), (114, 7338),

Gene: Lakshmi\_11 Start: 9244, Stop: 9822, Start Num: 6

Candidate Starts for Lakshmi\_11:

(Start: 6 @9244 has 52 MA's), (Start: 8 @9253 has 25 MA's), (16, 9298), (34, 9415), (36, 9427), (37, 9433), (52, 9496), (62, 9523), (86, 9607), (88, 9613), (92, 9643), (103, 9691), (109, 9721), (131, 9814),

Gene: Laphuphu24k\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for Laphuphu24k\_8:

(Start: 5 @6714 has 50 MA's), (30, 6861), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Lasagna\_7 Start: 6336, Stop: 6905, Start Num: 8

Candidate Starts for Lasagna\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: Lennox\_7 Start: 6327, Stop: 6905, Start Num: 6

Candidate Starts for Lennox\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (57, 6594), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: Leona\_8 Start: 6765, Stop: 7352, Start Num: 5

Candidate Starts for Leona\_8:

(Start: 5 @6765 has 50 MA's), (22, 6858), (26, 6888), (33, 6945), (49, 7020), (50, 7023), (60, 7050), (72, 7086), (82, 7131), (89, 7161), (103, 7227), (108, 7254), (109, 7257),

Gene: LilStuart\_7 Start: 6327, Stop: 6905, Start Num: 6

Candidate Starts for LilStuart\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (57, 6594), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: Lilo27\_8 Start: 6745, Stop: 7302, Start Num: 10

Candidate Starts for Lilo27\_8:

(Start: 10 @6745 has 80 MA's), (35, 6892), (36, 6898), (41, 6922), (77, 7045), (96, 7138), (110, 7201), (126, 7270), (133, 7297),

Gene: LilyBell\_9 Start: 7186, Stop: 7779, Start Num: 9

Candidate Starts for LilyBell\_9:

(Start: 9 @7186 has 16 MA's), (12, 7198), (21, 7243), (36, 7345), (37, 7351), (39, 7366), (40, 7369), (57, 7429), (68, 7462), (96, 7603), (97, 7606), (123, 7726),

Gene: LimaBean\_8 Start: 6765, Stop: 7325, Start Num: 10

Candidate Starts for LimaBean\_8:

(Start: 10 @6765 has 80 MA's), (35, 6912), (36, 6918), (41, 6942), (57, 6999), (95, 7152), (96, 7161), (110, 7224), (126, 7293),

Gene: Litotes\_11 Start: 9218, Stop: 9790, Start Num: 7

Candidate Starts for Litotes\_11:

(Start: 7 @9218 has 7 MA's), (34, 9380), (36, 9392), (37, 9398), (47, 9443), (52, 9461), (86, 9572), (88, 9578), (103, 9656), (109, 9686), (118, 9731), (119, 9734), (129, 9776), (131, 9779),

Gene: LittleRon\_9 Start: 7169, Stop: 7759, Start Num: 9

Candidate Starts for LittleRon\_9:

(Start: 9 @7169 has 16 MA's), (12, 7181), (21, 7226), (37, 7334), (83, 7517), (86, 7523), (96, 7583), (97, 7586), (116, 7685), (123, 7706),

Gene: LittleTokyo\_9 Start: 7047, Stop: 7634, Start Num: 5

Candidate Starts for LittleTokyo\_9:

(Start: 5 @7047 has 50 MA's), (50, 7305), (58, 7329), (60, 7332), (65, 7347), (72, 7368), (82, 7413), (87, 7425), (89, 7443), (103, 7509), (109, 7539),

Gene: Loviatar\_8 Start: 7027, Stop: 7578, Start Num: 10

Candidate Starts for Loviatar\_8:

(Start: 10 @7027 has 80 MA's), (35, 7174), (41, 7204), (49, 7237), (54, 7252), (86, 7354), (95, 7405), (110, 7477), (114, 7504),

Gene: Lucy\_7 Start: 6318, Stop: 6896, Start Num: 6

Candidate Starts for Lucy\_7:

(Start: 6 @6318 has 52 MA's), (Start: 8 @6327 has 25 MA's), (16, 6372), (36, 6501), (37, 6507), (52, 6570), (57, 6585), (62, 6597), (84, 6678), (86, 6681), (88, 6687), (96, 6738), (97, 6741), (103, 6765), (109, 6795), (118, 6840), (126, 6870), (129, 6885), (131, 6888),

Gene: Lunar\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Lunar\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: Lynlen\_8 Start: 6779, Stop: 7339, Start Num: 10

Candidate Starts for Lynlen\_8:

(Start: 10 @6779 has 80 MA's), (17, 6812), (35, 6926), (36, 6932), (41, 6956), (57, 7013), (60, 7022), (84, 7112), (110, 7238), (126, 7307),

Gene: Makoto\_7 Start: 6327, Stop: 6905, Start Num: 6

Candidate Starts for Makoto\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (57, 6594), (62, 6606), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: MamaPearl\_7 Start: 6380, Stop: 6949, Start Num: 8

Candidate Starts for MamaPearl\_7:

(Start: 6 @6371 has 52 MA's), (Start: 8 @6380 has 25 MA's), (16, 6425), (36, 6554), (37, 6560), (52, 6623), (62, 6650), (86, 6734), (88, 6740), (96, 6791), (97, 6794), (100, 6806), (103, 6818), (109, 6848), (118, 6893), (126, 6923), (129, 6938), (131, 6941),

Gene: Maria1952\_7 Start: 6344, Stop: 6925, Start Num: 6

Candidate Starts for Maria1952\_7:

(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37, 6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131, 6914),

Gene: MeganNoll\_11 Start: 9242, Stop: 9820, Start Num: 6

Candidate Starts for MeganNoll\_11:

(Start: 6 @9242 has 52 MA's), (Start: 8 @9251 has 25 MA's), (16, 9296), (36, 9425), (37, 9431), (47, 9476), (52, 9494), (57, 9509), (62, 9521), (86, 9605), (88, 9611), (96, 9662), (97, 9665), (103, 9689), (109, 9719), (112, 9740), (118, 9764), (126, 9794), (129, 9809), (131, 9812),

Gene: Melons\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Melons\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: Milomuff\_9 Start: 7151, Stop: 7711, Start Num: 10

Candidate Starts for Milomuff\_9:

(Start: 10 @7151 has 80 MA's), (35, 7298), (36, 7304), (41, 7328), (57, 7385), (95, 7538), (96, 7547), (110, 7610), (126, 7679),

Gene: Misaeng\_11 Start: 9290, Stop: 9868, Start Num: 6

Candidate Starts for Misaeng\_11:

(Start: 6 @9290 has 52 MA's), (Start: 8 @9299 has 25 MA's), (16, 9344), (34, 9461), (36, 9473), (37, 9479), (52, 9542), (73, 9602), (88, 9659), (103, 9737), (109, 9767), (131, 9860),

Gene: Moki\_7 Start: 6329, Stop: 6907, Start Num: 6

Candidate Starts for Moki\_7:

(Start: 6 @6329 has 52 MA's), (Start: 8 @6338 has 25 MA's), (16, 6383), (36, 6512), (37, 6518), (52, 6581), (62, 6608), (86, 6692), (88, 6698), (96, 6749), (97, 6752), (100, 6764), (103, 6776), (109, 6806), (118, 6851), (126, 6881), (129, 6896), (131, 6899),

Gene: MrBoss\_11 Start: 9218, Stop: 9790, Start Num: 7

Candidate Starts for MrBoss\_11:

(Start: 7 @9218 has 7 MA's), (34, 9380), (36, 9392), (37, 9398), (47, 9443), (52, 9461), (84, 9569), (86, 9572), (88, 9578), (103, 9656), (109, 9686), (118, 9731), (119, 9734), (129, 9776), (131, 9779),

Gene: MrGloopy\_11 Start: 9175, Stop: 9753, Start Num: 6

Candidate Starts for MrGloopy\_11:

(Start: 6 @9175 has 52 MA's), (Start: 8 @9184 has 25 MA's), (16, 9229), (36, 9358), (37, 9364), (47, 9409), (52, 9427), (57, 9442), (59, 9448), (62, 9454), (86, 9538), (88, 9544), (96, 9595), (97, 9598),

(103, 9622), (109, 9652), (112, 9673), (118, 9697), (126, 9727), (129, 9742), (131, 9745),

Gene: MsUbiquitous\_8 Start: 6742, Stop: 7302, Start Num: 10

Candidate Starts for MsUbiquitous\_8:

(Start: 10 @6742 has 80 MA's), (35, 6889), (36, 6895), (41, 6919), (96, 7138), (110, 7201), (126, 7270),

Gene: Nancia\_7 Start: 6327, Stop: 6905, Start Num: 6

Candidate Starts for Nancia\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: Nesbitt\_8 Start: 6733, Stop: 7266, Start Num: 9

Candidate Starts for Nesbitt\_8:

(Start: 9 @6733 has 16 MA's), (19, 6778), (23, 6790), (29, 6829), (31, 6844), (46, 6916), (51, 6937), (56, 6949), (61, 6955), (81, 7027), (83, 7036), (90, 7069), (106, 7150), (111, 7177), (132, 7249), (133, 7252),

Gene: Niblet\_9 Start: 7090, Stop: 7677, Start Num: 5

Candidate Starts for Niblet\_9:

(Start: 5 @7090 has 50 MA's), (33, 7270), (44, 7318), (50, 7348), (52, 7354), (60, 7375), (65, 7390), (72, 7411), (78, 7432), (85, 7462), (103, 7552), (114, 7615),

Gene: Nicky22\_9 Start: 7213, Stop: 7773, Start Num: 10

Candidate Starts for Nicky22\_9:

(Start: 10 @7213 has 80 MA's), (35, 7360), (36, 7366), (41, 7390), (96, 7609), (110, 7672), (126, 7741),

Gene: NidoQ\_9 Start: 7232, Stop: 7822, Start Num: 9

Candidate Starts for NidoQ\_9:

(Start: 9 @7232 has 16 MA's), (12, 7244), (21, 7289), (83, 7580), (86, 7586), (96, 7646), (97, 7649), (116, 7748), (123, 7769),

Gene: NikkiHotWheels\_9 Start: 7172, Stop: 7762, Start Num: 9

Candidate Starts for NikkiHotWheels\_9:

(Start: 9 @7172 has 16 MA's), (12, 7184), (21, 7229), (83, 7520), (86, 7526), (96, 7586), (97, 7589), (116, 7688), (123, 7709),

Gene: Nubia\_11 Start: 9213, Stop: 9782, Start Num: 8

Candidate Starts for Nubia\_11:

(Start: 6 @9204 has 52 MA's), (Start: 8 @9213 has 25 MA's), (16, 9258), (34, 9375), (36, 9387), (37, 9393), (52, 9456), (62, 9483), (86, 9567), (88, 9573), (92, 9603), (103, 9651), (109, 9681), (131, 9774),

Gene: OMalley\_7 Start: 6342, Stop: 6923, Start Num: 6

Candidate Starts for OMalley\_7:

(Start: 6 @6342 has 52 MA's), (Start: 8 @6351 has 25 MA's), (16, 6396), (24, 6441), (34, 6513), (36, 6525), (37, 6531), (62, 6621), (72, 6651), (84, 6702), (88, 6711), (96, 6762), (97, 6765), (100, 6777), (103, 6789), (109, 6819), (114, 6852), (131, 6912),

Gene: Olliecat\_8 Start: 6996, Stop: 7556, Start Num: 10

Candidate Starts for Olliecat\_8:

(Start: 10 @6996 has 80 MA's), (35, 7146), (36, 7152), (73, 7281), (90, 7359), (95, 7383), (98, 7401), (109, 7449), (110, 7455), (114, 7482),

Gene: Oppalora\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for Oppalora\_8:

(Start: 5 @6714 has 50 MA's), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Orcanus\_9 Start: 7095, Stop: 7682, Start Num: 5

Candidate Starts for Orcanus\_9:

(Start: 5 @7095 has 50 MA's), (33, 7275), (44, 7323), (50, 7353), (52, 7359), (60, 7380), (65, 7395), (72, 7416), (78, 7437), (85, 7467), (92, 7509), (103, 7557), (114, 7620), (120, 7638),

Gene: OtsoOtso\_9 Start: 7141, Stop: 7731, Start Num: 5

Candidate Starts for OtsoOtso\_9:

(Start: 5 @7141 has 50 MA's), (14, 7195), (33, 7321), (48, 7390), (50, 7399), (52, 7405), (60, 7426), (69, 7453), (72, 7465), (82, 7510), (103, 7606), (109, 7636), (114, 7669),

Gene: OurGirlNessie\_7 Start: 6318, Stop: 6896, Start Num: 6

Candidate Starts for OurGirlNessie\_7:

(Start: 6 @6318 has 52 MA's), (Start: 8 @6327 has 25 MA's), (16, 6372), (36, 6501), (37, 6507), (52, 6570), (57, 6585), (62, 6597), (72, 6627), (84, 6678), (86, 6681), (88, 6687), (96, 6738), (97, 6741), (103, 6765), (109, 6795), (118, 6840), (126, 6870), (129, 6885), (131, 6888),

Gene: Oxynfrius\_11 Start: 9226, Stop: 9795, Start Num: 8

Candidate Starts for Oxynfrius\_11:

(Start: 6 @9217 has 52 MA's), (Start: 8 @9226 has 25 MA's), (16, 9271), (34, 9388), (36, 9400), (37, 9406), (52, 9469), (62, 9496), (86, 9580), (88, 9586), (92, 9616), (103, 9664), (109, 9694), (131, 9787),

Gene: PFR1\_06 Start: 6360, Stop: 6935, Start Num: 11

Candidate Starts for PFR1\_06:

(Start: 11 @6360 has 4 MA's), (12, 6363), (15, 6375), (25, 6438), (43, 6546), (47, 6567), (52, 6585), (70, 6633), (73, 6645), (89, 6729), (99, 6780), (100, 6783), (101, 6786), (102, 6789), (127, 6903), (132, 6924), (133, 6927),

Gene: PFR2\_06 Start: 6360, Stop: 6935, Start Num: 11

Candidate Starts for PFR2\_06:

(Start: 11 @6360 has 4 MA's), (12, 6363), (15, 6375), (25, 6438), (43, 6546), (47, 6567), (52, 6585), (70, 6633), (73, 6645), (89, 6729), (99, 6780), (100, 6783), (101, 6786), (102, 6789), (127, 6903), (132, 6924), (133, 6927),

Gene: PartyCup\_11 Start: 9265, Stop: 9837, Start Num: 7

Candidate Starts for PartyCup\_11:

(Start: 7 @9265 has 7 MA's), (34, 9427), (36, 9439), (37, 9445), (47, 9490), (52, 9508), (86, 9619), (88, 9625), (103, 9703), (109, 9733), (118, 9778), (119, 9781), (129, 9823), (131, 9826),

Gene: PastaFagioli\_8 Start: 6843, Stop: 7400, Start Num: 10

Candidate Starts for PastaFagioli\_8:

(Start: 10 @6843 has 80 MA's), (35, 6990), (36, 6996), (41, 7020), (86, 7176), (95, 7227), (110, 7299), (111, 7311), (114, 7326),

Gene: Peas\_9 Start: 7175, Stop: 7768, Start Num: 9

Candidate Starts for Peas\_9:

(Start: 9 @7175 has 16 MA's), (12, 7187), (21, 7232), (36, 7334), (37, 7340), (39, 7355), (40, 7358), (57, 7418), (68, 7451), (96, 7592), (123, 7715),

Gene: Pecas\_8 Start: 6763, Stop: 7323, Start Num: 10

Candidate Starts for Pecas\_8:

(Start: 10 @6763 has 80 MA's), (35, 6910), (36, 6916), (41, 6940), (96, 7159), (110, 7222), (126, 7291),

Gene: PeggyLeg03\_9 Start: 7215, Stop: 7805, Start Num: 9

Candidate Starts for PeggyLeg03\_9:

(Start: 9 @7215 has 16 MA's), (12, 7227), (21, 7272), (86, 7569), (96, 7629), (97, 7632), (116, 7731), (123, 7752), (133, 7791),

Gene: Pelletreau\_10 Start: 7301, Stop: 7888, Start Num: 5

Candidate Starts for Pelletreau\_10:

(Start: 5 @7301 has 50 MA's), (33, 7481), (44, 7529), (50, 7559), (52, 7565), (60, 7586), (63, 7598), (65, 7601), (72, 7622), (78, 7643), (92, 7715), (103, 7763), (114, 7826), (120, 7844),

Gene: PhigPhack\_8 Start: 6794, Stop: 7354, Start Num: 10

Candidate Starts for PhigPhack\_8:

(Start: 10 @6794 has 80 MA's), (35, 6941), (36, 6947), (41, 6971), (57, 7028), (60, 7037), (95, 7181), (96, 7190), (110, 7253), (126, 7322),

Gene: PhirstandPhine\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for PhirstandPhine\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: Phisb\_8 Start: 6756, Stop: 7316, Start Num: 10

Candidate Starts for Phisb\_8:

(Start: 10 @6756 has 80 MA's), (17, 6789), (35, 6903), (36, 6909), (41, 6933), (57, 6990), (60, 6999), (84, 7089), (110, 7215), (126, 7284),

Gene: PhluffyCoco\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for PhluffyCoco\_8:

(Start: 5 @6714 has 50 MA's), (30, 6861), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Pineda\_10 Start: 7302, Stop: 7892, Start Num: 5

Candidate Starts for Pineda\_10:

(Start: 5 @7302 has 50 MA's), (14, 7356), (33, 7482), (48, 7551), (50, 7560), (52, 7566), (60, 7587), (69, 7614), (72, 7626), (82, 7671), (103, 7767), (109, 7797), (114, 7830),

Gene: PinkFriday\_7 Start: 6345, Stop: 6926, Start Num: 6

Candidate Starts for PinkFriday\_7:

(Start: 6 @6345 has 52 MA's), (Start: 8 @6354 has 25 MA's), (16, 6399), (24, 6444), (36, 6528), (37, 6534), (62, 6624), (72, 6654), (84, 6705), (88, 6714), (103, 6792), (109, 6822), (126, 6897), (131, 6915),

Gene: PitaDog\_7 Start: 6318, Stop: 6896, Start Num: 6

Candidate Starts for PitaDog\_7:

(Start: 6 @6318 has 52 MA's), (Start: 8 @6327 has 25 MA's), (16, 6372), (36, 6501), (37, 6507), (52, 6570), (57, 6585), (62, 6597), (72, 6627), (84, 6678), (86, 6681), (88, 6687), (96, 6738), (97, 6741), (103, 6765), (109, 6795), (118, 6840), (126, 6870), (129, 6885), (131, 6888),

Gene: Polka\_9 Start: 7141, Stop: 7731, Start Num: 5

Candidate Starts for Polka\_9:

(Start: 5 @7141 has 50 MA's), (14, 7195), (33, 7321), (48, 7390), (50, 7399), (52, 7405), (60, 7426), (69, 7453), (72, 7465), (82, 7510), (103, 7606), (109, 7636), (114, 7669),

Gene: PondAmelia\_11 Start: 7016, Stop: 7567, Start Num: 10

Candidate Starts for PondAmelia\_11:

(Start: 10 @7016 has 80 MA's), (35, 7163), (41, 7193), (49, 7226), (54, 7241), (86, 7343), (90, 7370), (95, 7394), (110, 7466), (114, 7493),

Gene: Potatoes\_11 Start: 9236, Stop: 9814, Start Num: 6

Candidate Starts for Potatoes\_11:

(Start: 6 @9236 has 52 MA's), (Start: 8 @9245 has 25 MA's), (16, 9290), (36, 9419), (37, 9425), (47, 9470), (52, 9488), (57, 9503), (62, 9515), (84, 9596), (86, 9599), (88, 9605), (96, 9656), (97, 9659), (100, 9671), (103, 9683), (109, 9713), (112, 9734), (118, 9758), (126, 9788), (129, 9803), (131, 9806),

Gene: Preamble\_7 Start: 6328, Stop: 6906, Start Num: 6

Candidate Starts for Preamble\_7:

(Start: 6 @6328 has 52 MA's), (Start: 8 @6337 has 25 MA's), (16, 6382), (36, 6511), (37, 6517), (62, 6607), (73, 6640), (84, 6688), (88, 6697), (96, 6748), (97, 6751), (100, 6763), (103, 6775), (109, 6805), (112, 6826), (118, 6850), (126, 6880), (129, 6895), (131, 6898),

Gene: Pterodactyl\_7 Start: 6319, Stop: 6897, Start Num: 6

Candidate Starts for Pterodactyl\_7:

(Start: 6 @6319 has 52 MA's), (Start: 8 @6328 has 25 MA's), (16, 6373), (36, 6502), (37, 6508), (52, 6571), (57, 6586), (62, 6598), (84, 6679), (86, 6682), (88, 6688), (96, 6739), (97, 6742), (103, 6766), (109, 6796), (118, 6841), (126, 6871), (129, 6886), (131, 6889),

Gene: Pucara\_9 Start: 7174, Stop: 7767, Start Num: 9

Candidate Starts for Pucara\_9:

(Start: 9 @7174 has 16 MA's), (12, 7186), (21, 7231), (36, 7333), (37, 7339), (39, 7354), (40, 7357), (57, 7417), (68, 7450), (96, 7591), (97, 7594), (123, 7714),

Gene: Pumancara\_7 Start: 6344, Stop: 6925, Start Num: 6

Candidate Starts for Pumancara\_7:

(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37, 6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131, 6914),

Gene: QMacho\_9 Start: 7246, Stop: 7806, Start Num: 10

Candidate Starts for QMacho\_9:

(Start: 10 @7246 has 80 MA's), (35, 7393), (36, 7399), (41, 7423), (96, 7642), (110, 7705), (126, 7774),

Gene: Quenya\_9 Start: 6901, Stop: 7452, Start Num: 10

Candidate Starts for Quenya\_9:

(Start: 10 @6901 has 80 MA's), (35, 7048), (41, 7078), (49, 7111), (54, 7126), (90, 7255), (95, 7279), (96, 7288), (110, 7351),

Gene: RAP15\_11 Start: 9242, Stop: 9820, Start Num: 6

Candidate Starts for RAP15\_11:

(Start: 6 @9242 has 52 MA's), (Start: 8 @9251 has 25 MA's), (16, 9296), (36, 9425), (37, 9431), (47, 9476), (52, 9494), (57, 9509), (62, 9521), (86, 9605), (88, 9611), (96, 9662), (97, 9665), (103, 9689), (109, 9719), (112, 9740), (118, 9764), (126, 9794), (129, 9809), (131, 9812),

Gene: Rattail\_8 Start: 6765, Stop: 7352, Start Num: 5

Candidate Starts for Rattail\_8:

(Start: 5 @6765 has 50 MA's), (22, 6858), (26, 6888), (33, 6945), (49, 7020), (50, 7023), (60, 7050), (72, 7086), (82, 7131), (89, 7161), (103, 7227), (108, 7254), (109, 7257),

Gene: RcigaStruga\_11 Start: 9225, Stop: 9803, Start Num: 6

Candidate Starts for RcigaStruga\_11:

(Start: 6 @9225 has 52 MA's), (Start: 8 @9234 has 25 MA's), (16, 9279), (34, 9396), (36, 9408), (37, 9414), (52, 9477), (88, 9594), (103, 9672), (109, 9702), (131, 9795),

Gene: RedFox\_8 Start: 6714, Stop: 7301, Start Num: 5

Candidate Starts for RedFox\_8:

(Start: 5 @6714 has 50 MA's), (30, 6861), (33, 6894), (42, 6939), (49, 6969), (50, 6972), (62, 7005), (71, 7029), (72, 7035), (82, 7080), (87, 7092), (89, 7110), (91, 7119), (103, 7176), (108, 7203), (109, 7206),

Gene: Renna12\_9 Start: 6911, Stop: 7501, Start Num: 5

Candidate Starts for Renna12\_9:

(Start: 5 @6911 has 50 MA's), (22, 7004), (33, 7091), (49, 7166), (50, 7169), (60, 7196), (62, 7202), (71, 7226), (72, 7232), (82, 7280), (103, 7376), (108, 7403), (109, 7406),

Gene: Riovina\_7 Start: 6351, Stop: 6923, Start Num: 8

Candidate Starts for Riovina\_7:

(Start: 6 @6342 has 52 MA's), (Start: 8 @6351 has 25 MA's), (16, 6396), (24, 6441), (34, 6513), (36, 6525), (37, 6531), (62, 6621), (72, 6651), (84, 6702), (88, 6711), (96, 6762), (97, 6765), (100, 6777), (103, 6789), (109, 6819), (114, 6852), (131, 6912),

Gene: Riverdale\_11 Start: 9173, Stop: 9751, Start Num: 6

Candidate Starts for Riverdale\_11:

(Start: 6 @9173 has 52 MA's), (Start: 8 @9182 has 25 MA's), (16, 9227), (36, 9356), (37, 9362), (47, 9407), (52, 9425), (57, 9440), (62, 9452), (86, 9536), (88, 9542), (96, 9593), (97, 9596), (103, 9620), (109, 9650), (112, 9671), (118, 9695), (126, 9725), (129, 9740), (131, 9743),

Gene: Rollins\_7 Start: 6593, Stop: 7153, Start Num: 10

Candidate Starts for Rollins\_7:

(Start: 10 @6593 has 80 MA's), (84, 6926), (98, 6998),

Gene: Rona\_8 Start: 6996, Stop: 7553, Start Num: 10

Candidate Starts for Rona\_8:

(Start: 10 @6996 has 80 MA's), (35, 7143), (41, 7173), (84, 7326), (96, 7389), (110, 7452), (126, 7521),

Gene: Rowa\_8 Start: 6493, Stop: 7023, Start Num: 9

Candidate Starts for Rowa\_8:

(Start: 9 @6493 has 16 MA's), (19, 6538), (29, 6589), (45, 6673), (53, 6700), (66, 6730), (79, 6775), (86, 6799), (90, 6826), (131, 7003), (132, 7006), (133, 7009),

Gene: Rozby\_11 Start: 9173, Stop: 9751, Start Num: 6

Candidate Starts for Rozby\_11:

(Start: 6 @9173 has 52 MA's), (Start: 8 @9182 has 25 MA's), (16, 9227), (36, 9356), (37, 9362), (47, 9407), (52, 9425), (57, 9440), (62, 9452), (86, 9536), (88, 9542), (96, 9593), (97, 9596), (100, 9608), (103, 9620), (109, 9650), (112, 9671), (118, 9695), (126, 9725), (129, 9740), (131, 9743),

Gene: Ruchi\_9 Start: 7376, Stop: 7963, Start Num: 5

Candidate Starts for Ruchi\_9:

(Start: 5 @7376 has 50 MA's), (33, 7556), (47, 7622), (50, 7634), (52, 7640), (60, 7661), (65, 7676), (72, 7697), (103, 7838), (109, 7868),

Gene: RunningOnE\_68 Start: 32829, Stop: 33389, Start Num: 11

Candidate Starts for RunningOnE\_68:

(Start: 11 @32829 has 4 MA's), (38, 32994), (63, 33081), (86, 33153), (100, 33228), (105, 33252), (128, 33363),

Gene: SanaSana\_9 Start: 7016, Stop: 7567, Start Num: 10

Candidate Starts for SanaSana\_9:

(Start: 10 @7016 has 80 MA's), (35, 7163), (41, 7193), (49, 7226), (54, 7241), (86, 7343), (90, 7370), (95, 7394), (110, 7466), (114, 7493),

Gene: SansAfet\_8 Start: 6776, Stop: 7336, Start Num: 10

Candidate Starts for SansAfet\_8:

(Start: 10 @6776 has 80 MA's), (35, 6923), (36, 6929), (41, 6953), (57, 7010), (60, 7019), (95, 7163), (96, 7172), (110, 7235), (126, 7304),

Gene: SarBear\_8 Start: 6739, Stop: 7299, Start Num: 10

Candidate Starts for SarBear\_8:

(Start: 10 @6739 has 80 MA's), (35, 6886), (36, 6892), (41, 6916), (96, 7135), (110, 7198), (126, 7267),

Gene: Savage2526\_11 Start: 9236, Stop: 9814, Start Num: 6

Candidate Starts for Savage2526\_11:

(Start: 6 @9236 has 52 MA's), (Start: 8 @9245 has 25 MA's), (16, 9290), (36, 9419), (37, 9425), (47, 9470), (52, 9488), (57, 9503), (62, 9515), (86, 9599), (88, 9605), (96, 9656), (97, 9659), (103, 9683), (109, 9713), (112, 9734), (118, 9758), (126, 9788), (129, 9803), (131, 9806),

Gene: Scuttle\_11 Start: 9251, Stop: 9820, Start Num: 8

Candidate Starts for Scuttle\_11:

(Start: 6 @9242 has 52 MA's), (Start: 8 @9251 has 25 MA's), (16, 9296), (36, 9425), (37, 9431), (47, 9476), (52, 9494), (57, 9509), (62, 9521), (86, 9605), (88, 9611), (96, 9662), (97, 9665), (103, 9689), (109, 9719), (112, 9740), (118, 9764), (126, 9794), (129, 9809), (131, 9812),

Gene: Sergei\_7 Start: 6353, Stop: 6925, Start Num: 8

Candidate Starts for Sergei\_7:

(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37, 6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131, 6914),

Gene: Sharkboy\_8 Start: 6995, Stop: 7552, Start Num: 10

Candidate Starts for Sharkboy\_8:

(Start: 10 @6995 has 80 MA's), (35, 7142), (41, 7172), (84, 7325), (96, 7388), (110, 7451), (126, 7520),

Gene: Shayna\_7 Start: 6598, Stop: 7158, Start Num: 10

Candidate Starts for Shayna\_7:

(Start: 10 @6598 has 80 MA's), (19, 6643), (35, 6748), (36, 6754), (76, 6895), (80, 6916), (86, 6934), (100, 7009), (110, 7057),

Gene: Shen\_10 Start: 7302, Stop: 7889, Start Num: 5

Candidate Starts for Shen\_10:

(Start: 5 @7302 has 50 MA's), (33, 7482), (44, 7530), (50, 7560), (52, 7566), (60, 7587), (63, 7599), (65, 7602), (72, 7623), (78, 7644), (92, 7716), (103, 7764), (114, 7827), (120, 7845),

Gene: SirBeanington\_8 Start: 6756, Stop: 7325, Start Num: 10

Candidate Starts for SirBeanington\_8:

(Start: 10 @6756 has 80 MA's), (17, 6789), (35, 6903), (36, 6909), (41, 6933), (64, 7011), (110, 7224), (126, 7293),

Gene: Skylord\_7 Start: 6533, Stop: 7093, Start Num: 10

Candidate Starts for Skylord\_7:

(Start: 10 @6533 has 80 MA's), (84, 6866), (98, 6938),

Gene: Slay\_8 Start: 7215, Stop: 7775, Start Num: 10

Candidate Starts for Slay\_8:

(Start: 10 @7215 has 80 MA's), (35, 7362), (36, 7368), (41, 7392), (110, 7674), (126, 7743),

Gene: Softsoap\_8 Start: 6765, Stop: 7325, Start Num: 10

Candidate Starts for Softsoap\_8:

(Start: 10 @6765 has 80 MA's), (35, 6912), (36, 6918), (41, 6942), (57, 6999), (95, 7152), (96, 7161), (110, 7224), (126, 7293),

Gene: Solea\_9 Start: 7151, Stop: 7711, Start Num: 10

Candidate Starts for Solea\_9:

(Start: 10 @7151 has 80 MA's), (35, 7298), (36, 7304), (41, 7328), (57, 7385), (95, 7538), (96, 7547), (110, 7610), (126, 7679),

Gene: Spooks\_53 Start: 31393, Stop: 31992, Start Num: 11

Candidate Starts for Spooks\_53:

(Start: 11 @31393 has 4 MA's), (16, 31417), (56, 31624), (83, 31705), (97, 31774), (104, 31804), (107, 31834), (134, 31954),

Gene: Squircle\_8 Start: 6995, Stop: 7555, Start Num: 10

Candidate Starts for Squircle\_8:

(Start: 10 @6995 has 80 MA's), (35, 7145), (36, 7151), (73, 7280), (90, 7358), (95, 7382), (98, 7400), (109, 7448), (110, 7454), (114, 7481),

Gene: Stoor\_8 Start: 7013, Stop: 7564, Start Num: 10

Candidate Starts for Stoor\_8:

(Start: 10 @7013 has 80 MA's), (35, 7160), (41, 7190), (49, 7223), (54, 7238), (86, 7340), (90, 7367), (95, 7391), (110, 7463), (114, 7490),

Gene: Stromboli\_8 Start: 7014, Stop: 7565, Start Num: 10

Candidate Starts for Stromboli\_8:

(Start: 10 @7014 has 80 MA's), (35, 7161), (41, 7191), (49, 7224), (54, 7239), (95, 7392), (110, 7464), (114, 7491), (133, 7560),

Gene: StuartMinion\_8 Start: 6740, Stop: 7327, Start Num: 5

Candidate Starts for StuartMinion\_8:

(Start: 5 @6740 has 50 MA's), (22, 6833), (49, 6995), (50, 6998), (52, 7004), (60, 7025), (62, 7031), (65, 7040), (71, 7055), (72, 7061), (82, 7106), (87, 7118), (103, 7202), (108, 7229), (109, 7232),

Gene: Success\_54 Start: 30512, Stop: 31111, Start Num: 11

Candidate Starts for Success\_54:

(Start: 11 @30512 has 4 MA's), (16, 30536), (51, 30731), (83, 30824), (97, 30893), (104, 30923), (107, 30953), (130, 31052),

Gene: SunnyD\_7 Start: 6598, Stop: 7158, Start Num: 10

Candidate Starts for SunnyD\_7:

(Start: 10 @6598 has 80 MA's), (19, 6643), (35, 6748), (36, 6754), (76, 6895), (80, 6916), (86, 6934), (100, 7009), (110, 7057),

Gene: Supakev\_7 Start: 6344, Stop: 6925, Start Num: 6

Candidate Starts for Supakev\_7:

(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37, 6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131, 6914),

Gene: Suppi\_11 Start: 9265, Stop: 9837, Start Num: 7

Candidate Starts for Suppi\_11:

(Start: 7 @9265 has 7 MA's), (34, 9427), (36, 9439), (37, 9445), (47, 9490), (86, 9619), (88, 9625), (103, 9703), (109, 9733), (118, 9778), (119, 9781), (129, 9823), (131, 9826),

Gene: Swervy\_8 Start: 6739, Stop: 7299, Start Num: 10

Candidate Starts for Swervy\_8:

(Start: 10 @6739 has 80 MA's), (35, 6886), (36, 6892), (41, 6916), (96, 7135), (110, 7198), (126, 7267),

Gene: TattModd\_11 Start: 9236, Stop: 9814, Start Num: 6

Candidate Starts for TattModd\_11:

(Start: 6 @9236 has 52 MA's), (Start: 8 @9245 has 25 MA's), (16, 9290), (36, 9419), (37, 9425), (47, 9470), (52, 9488), (57, 9503), (59, 9509), (62, 9515), (86, 9599), (88, 9605), (96, 9656), (97, 9659), (103, 9683), (109, 9713), (112, 9734), (118, 9758), (126, 9788), (129, 9803), (131, 9806),

Gene: TaylorSipht\_9 Start: 7181, Stop: 7768, Start Num: 5

Candidate Starts for TaylorSipht\_9:

(Start: 5 @7181 has 50 MA's), (33, 7361), (42, 7406), (50, 7439), (52, 7445), (60, 7466), (65, 7481), (67, 7487), (72, 7502), (103, 7643), (114, 7706),

Gene: Teagster\_7 Start: 6601, Stop: 7158, Start Num: 10

Candidate Starts for Teagster\_7:

(Start: 10 @6601 has 80 MA's), (19, 6646), (35, 6751), (36, 6757), (80, 6916), (86, 6934), (100, 7009), (110, 7057), (124, 7120),

Gene: Temper16\_7 Start: 6353, Stop: 6925, Start Num: 8

Candidate Starts for Temper16\_7:

(Start: 6 @6344 has 52 MA's), (Start: 8 @6353 has 25 MA's), (16, 6398), (24, 6443), (36, 6527), (37, 6533), (62, 6623), (72, 6653), (84, 6704), (88, 6713), (103, 6791), (109, 6821), (126, 6896), (131, 6914),

Gene: Toad24\_10 Start: 7302, Stop: 7889, Start Num: 5

Candidate Starts for Toad24\_10:

(Start: 5 @7302 has 50 MA's), (33, 7482), (44, 7530), (50, 7560), (52, 7566), (60, 7587), (63, 7599), (65, 7602), (72, 7623), (78, 7644), (92, 7716), (103, 7764), (114, 7827), (120, 7845),

Gene: TukTuk\_8 Start: 6739, Stop: 7299, Start Num: 10

Candidate Starts for TukTuk\_8:

(Start: 10 @6739 has 80 MA's), (35, 6886), (36, 6892), (41, 6916), (96, 7135), (110, 7198), (126, 7267),

Gene: Urla\_7 Start: 6374, Stop: 6952, Start Num: 6

Candidate Starts for Urla\_7:

(Start: 6 @6374 has 52 MA's), (Start: 8 @6383 has 25 MA's), (16, 6428), (36, 6557), (37, 6563), (47, 6608), (52, 6626), (62, 6653), (86, 6737), (88, 6743), (96, 6794), (97, 6797), (100, 6809), (103, 6821), (109, 6851), (118, 6896), (126, 6926), (129, 6941), (131, 6944),

Gene: Vallejo\_11 Start: 9183, Stop: 9752, Start Num: 8

Candidate Starts for Vallejo\_11:

(Start: 6 @9174 has 52 MA's), (Start: 8 @9183 has 25 MA's), (16, 9228), (36, 9357), (37, 9363), (47, 9408), (52, 9426), (57, 9441), (62, 9453), (86, 9537), (88, 9543), (96, 9594), (97, 9597), (103, 9621), (109, 9651), (112, 9672), (118, 9696), (126, 9726), (129, 9741), (131, 9744),

Gene: Vitas\_7 Start: 6533, Stop: 7093, Start Num: 10

Candidate Starts for Vitas\_7:

(Start: 10 @6533 has 80 MA's), (84, 6866), (98, 6938), (127, 7064),

Gene: Vulpecula\_9 Start: 7452, Stop: 8039, Start Num: 5

Candidate Starts for Vulpecula\_9:

(Start: 5 @7452 has 50 MA's), (33, 7632), (47, 7698), (50, 7710), (52, 7716), (60, 7737), (65, 7752), (72, 7773), (103, 7914), (109, 7944),

Gene: Vulture\_7 Start: 6342, Stop: 6923, Start Num: 6

Candidate Starts for Vulture\_7:

(Start: 6 @6342 has 52 MA's), (Start: 8 @6351 has 25 MA's), (16, 6396), (24, 6441), (34, 6513), (36, 6525), (37, 6531), (62, 6621), (65, 6630), (72, 6651), (84, 6702), (88, 6711), (96, 6762), (97, 6765), (100, 6777), (103, 6789), (109, 6819), (114, 6852), (131, 6912),

Gene: WalkingDead\_8 Start: 7002, Stop: 7553, Start Num: 10

Candidate Starts for WalkingDead\_8:

(Start: 10 @7002 has 80 MA's), (35, 7149), (41, 7179), (49, 7212), (54, 7227), (86, 7329), (95, 7380), (110, 7452), (114, 7479), (133, 7548),

Gene: Wawa\_11 Start: 9211, Stop: 9789, Start Num: 6

Candidate Starts for Wawa\_11:

(Start: 6 @9211 has 52 MA's), (Start: 8 @9220 has 25 MA's), (16, 9265), (36, 9394), (37, 9400), (47, 9445), (52, 9463), (57, 9478), (62, 9490), (84, 9571), (86, 9574), (88, 9580), (96, 9631), (97, 9634), (100, 9646), (103, 9658), (109, 9688), (112, 9709), (118, 9733), (126, 9763), (129, 9778), (131, 9781),

Gene: Wayne\_11 Start: 9311, Stop: 9883, Start Num: 7

Candidate Starts for Wayne\_11:

(Start: 7 @9311 has 7 MA's), (34, 9473), (36, 9485), (37, 9491), (47, 9536), (86, 9665), (88, 9671), (103, 9749), (109, 9779), (118, 9824), (119, 9827), (129, 9869), (131, 9872),

Gene: Westrich\_10 Start: 7290, Stop: 7877, Start Num: 5

Candidate Starts for Westrich\_10:

(Start: 5 @7290 has 50 MA's), (33, 7470), (44, 7518), (50, 7548), (52, 7554), (60, 7575), (63, 7587), (65, 7590), (72, 7611), (78, 7632), (92, 7704), (103, 7752), (114, 7815), (120, 7833),

Gene: WileyE\_8 Start: 6787, Stop: 7374, Start Num: 5

Candidate Starts for WileyE\_8:

(Start: 5 @6787 has 50 MA's), (33, 6967), (47, 7033), (50, 7045), (52, 7051), (60, 7072), (65, 7087), (72, 7108), (103, 7249), (109, 7279),

Gene: WonderBoy\_7 Start: 6336, Stop: 6905, Start Num: 8

Candidate Starts for WonderBoy\_7:

(Start: 6 @6327 has 52 MA's), (Start: 8 @6336 has 25 MA's), (16, 6381), (36, 6510), (37, 6516), (52, 6579), (57, 6594), (62, 6606), (72, 6636), (84, 6687), (86, 6690), (88, 6696), (96, 6747), (97, 6750), (103, 6774), (109, 6804), (118, 6849), (126, 6879), (129, 6894), (131, 6897),

Gene: Zhuangyuan\_10 Start: 7471, Stop: 8058, Start Num: 5

Candidate Starts for Zhuangyuan\_10:

(Start: 5 @7471 has 50 MA's), (33, 7651), (50, 7729), (58, 7753), (60, 7756), (65, 7771), (72, 7792), (82, 7837), (85, 7843), (87, 7849), (92, 7885), (103, 7933), (109, 7963),

Gene: Zixiang\_9 Start: 7090, Stop: 7677, Start Num: 5

Candidate Starts for Zixiang\_9:

(Start: 5 @7090 has 50 MA's), (33, 7270), (44, 7318), (50, 7348), (52, 7354), (60, 7375), (65, 7390), (72, 7411), (78, 7432), (85, 7462), (103, 7552), (114, 7615),

Gene: Zorro\_11 Start: 9199, Stop: 9768, Start Num: 8

Candidate Starts for Zorro\_11:

(Start: 6 @9190 has 52 MA's), (Start: 8 @9199 has 25 MA's), (16, 9244), (36, 9373), (37, 9379), (47, 9424), (52, 9442), (57, 9457), (62, 9469), (84, 9550), (86, 9553), (88, 9559), (96, 9610), (97, 9613), (100, 9625), (103, 9637), (109, 9667), (112, 9688), (118, 9712), (126, 9742), (129, 9757), (131, 9760),

Gene: phiSASD1\_29 Start: 6506, Stop: 7102, Start Num: 9

Candidate Starts for phiSASD1\_29:

(Start: 9 @6506 has 16 MA's), (31, 6617), (37, 6662), (51, 6722), (83, 6827), (86, 6833), (93, 6875), (95, 6884), (96, 6893), (116, 7025), (122, 7043), (133, 7088),