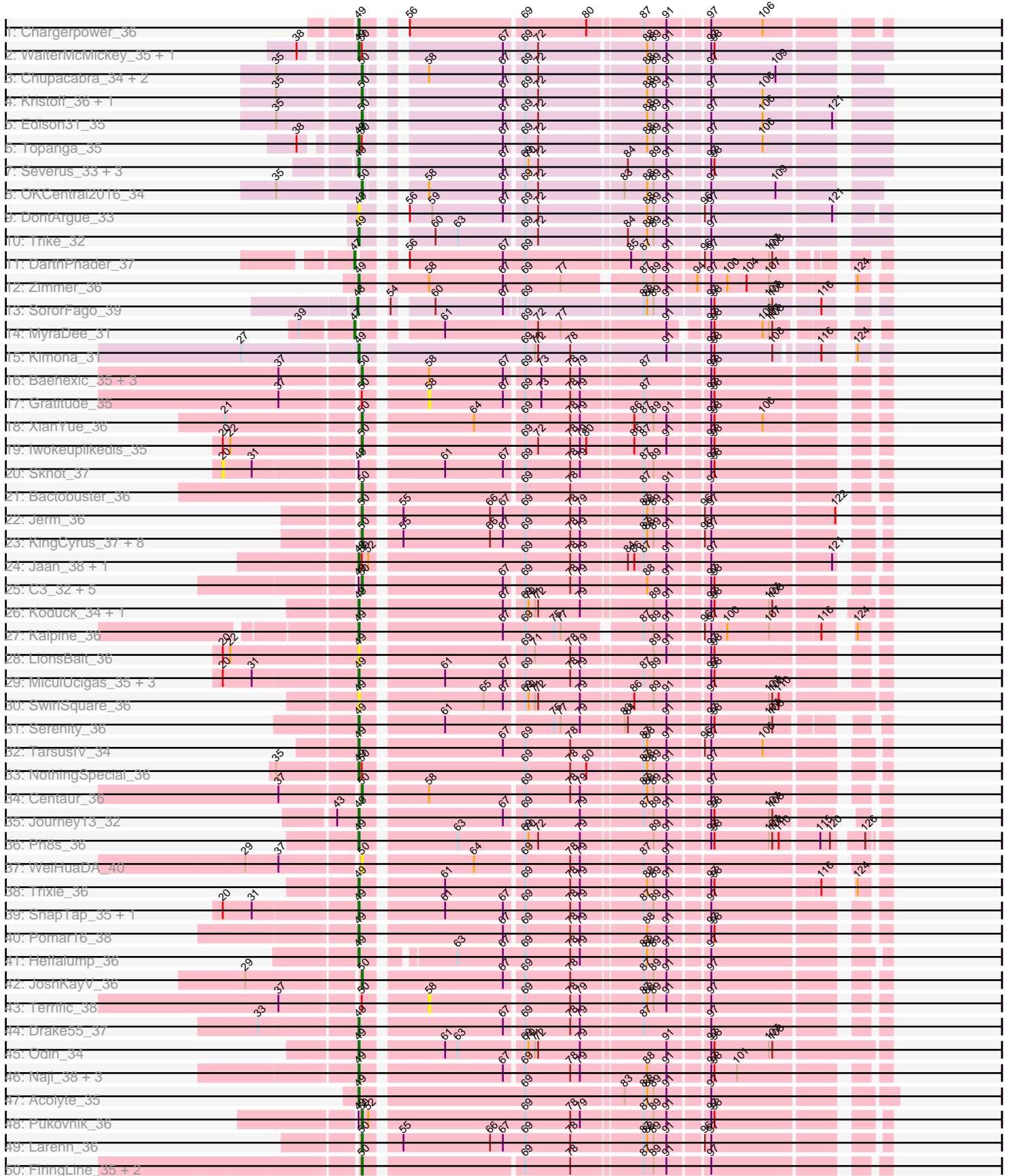
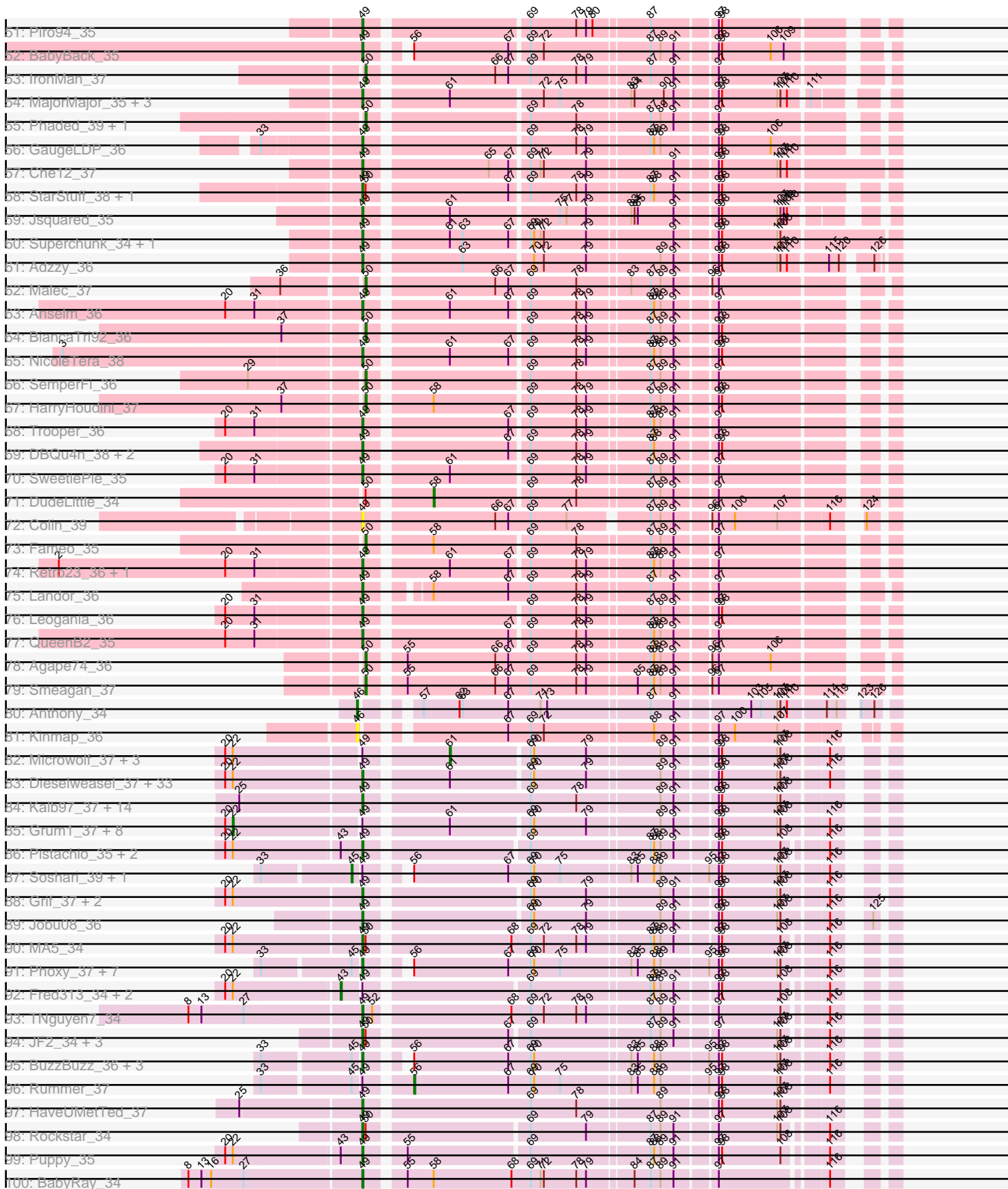


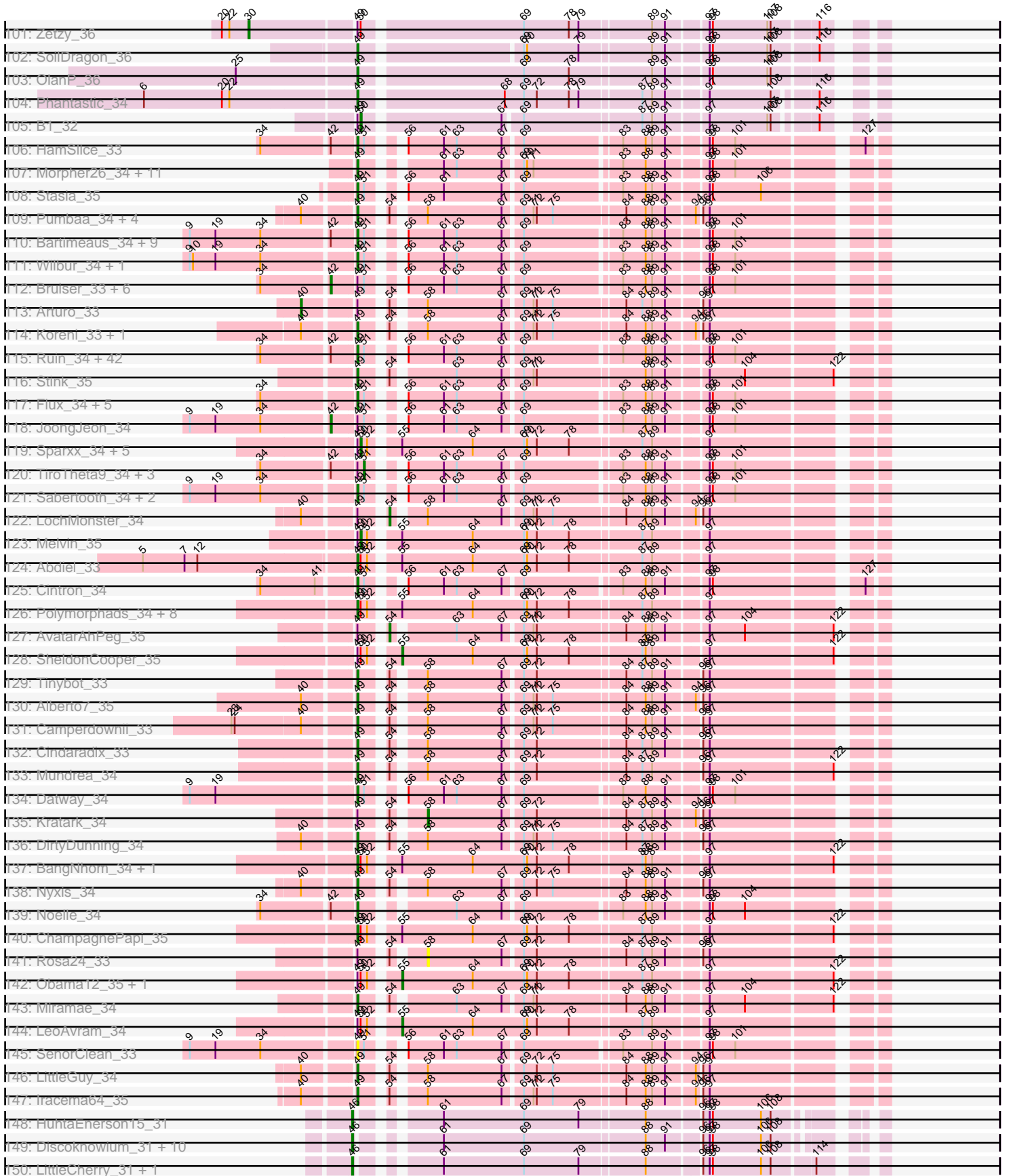
Pham 213876



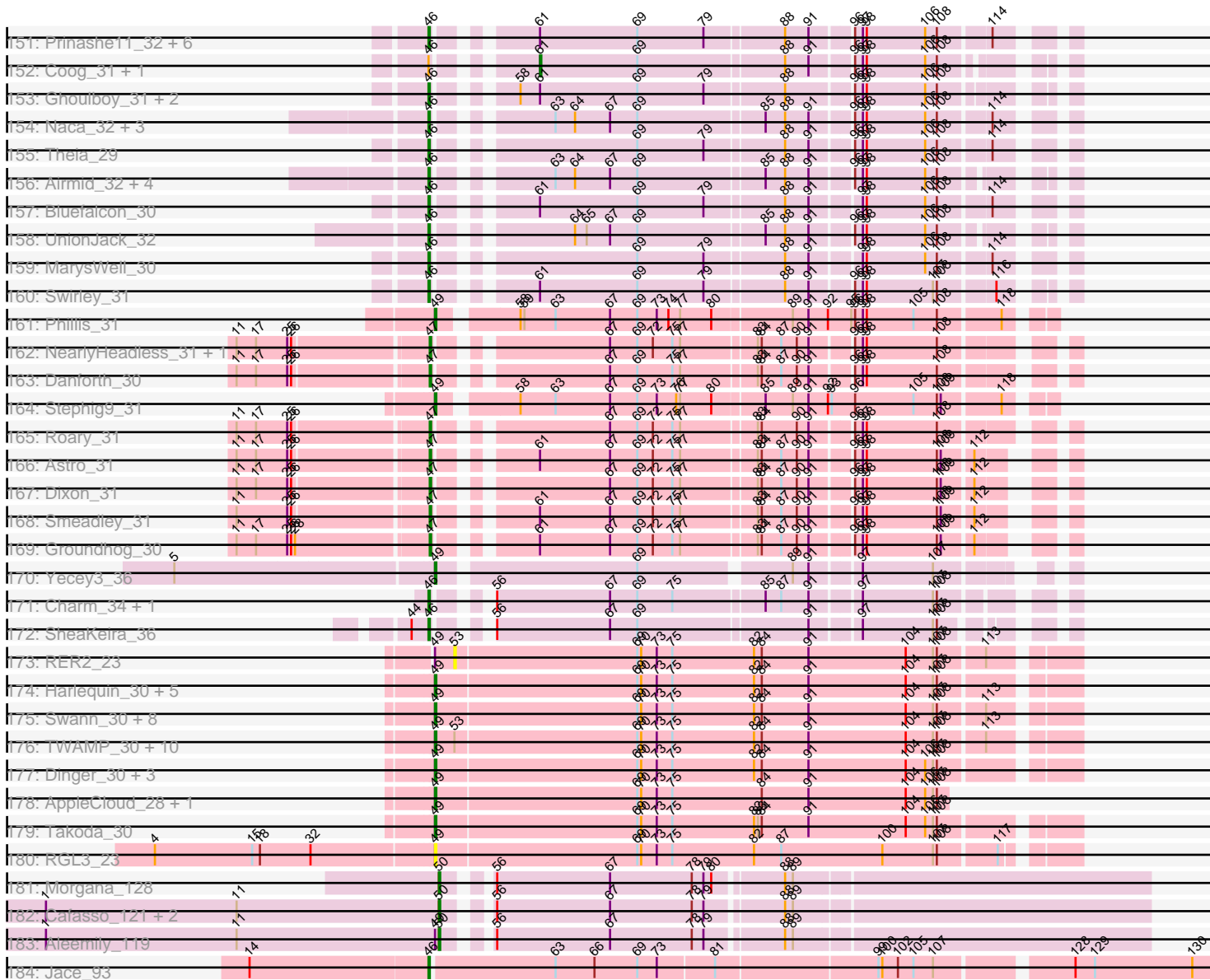
Pham 213876



Pham 213876



Pham 213876



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 213876 Report

This analysis was run 02/22/25 on database version 588.

Pham number 213876 has 462 members, 31 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_36
- Track 2 : WalterMcMickey\_35, Twister\_35
- Track 3 : Chupacabra\_34, Eaglepride\_36, Goose\_35
- Track 4 : Kristoff\_36, Rebeuca\_36
- Track 5 : Edison31\_35
- Track 6 : Topanga\_35
- Track 7 : Severus\_33, PeaceMeal1\_33, Poompha\_33, Drake94\_33
- Track 8 : OKCentral2016\_34
- Track 9 : DontArgue\_33
- Track 10 : Trike\_32
- Track 11 : DARTHPhader\_37
- Track 12 : Zimmer\_36
- Track 13 : SororFago\_39
- Track 14 : MyraDee\_31
- Track 15 : Kimona\_31
- Track 16 : Baehexic\_35, WideWale\_36, Updawg\_36, Equemioh13\_36
- Track 17 : Gratitude\_35
- Track 18 : XianYue\_36
- Track 19 : Iwokeuplikedis\_35
- Track 20 : Sknot\_37
- Track 21 : Bactobuster\_36
- Track 22 : Jerm\_36
- Track 23 : KingCyrus\_37, Turbido\_35, Dignity\_36, EvilGenius\_37, ChipMunk\_37, AbbyPaige\_36, Whabigail7\_35, Leviathan\_36, LilTurb\_35
- Track 24 : Jaan\_38, Tristan\_36
- Track 25 : C3\_32, AN9\_37, VC3\_37, ANI8\_37, AN3\_34, VA6\_34
- Track 26 : Koduck\_34, L5\_34.1
- Track 27 : Kalpine\_36
- Track 28 : LionsBait\_36
- Track 29 : MiculUcigas\_35, NaSiaTalie\_35, Bugsy\_37, Flare16\_35
- Track 30 : SwirlSquare\_36
- Track 31 : Serenity\_36
- Track 32 : TarsusIV\_34
- Track 33 : NothingSpecial\_36
- Track 34 : Centaur\_36
- Track 35 : Journey13\_32
- Track 36 : Ph8s\_36

- Track 37 : WeiHuaDA\_40
- Track 38 : Trixie\_36
- Track 39 : SnapTap\_35, Crucio\_35
- Track 40 : Pomar16\_38
- Track 41 : Heffalump\_36
- Track 42 : JoshKayV\_36
- Track 43 : Terrific\_38
- Track 44 : Drake55\_37
- Track 45 : Odin\_34
- Track 46 : Naji\_38, D29\_34.1, Travvers\_38, D32\_38
- Track 47 : Acolyte\_35
- Track 48 : Pukovnik\_36
- Track 49 : Larenn\_36
- Track 50 : FiringLine\_35, QueenBeesly\_35, Power\_34
- Track 51 : Piro94\_35
- Track 52 : BabyBack\_35
- Track 53 : IronMan\_37
- Track 54 : MajorMajor\_35, TipsytheTRex\_34, Bradman\_35, Quokka\_34
- Track 55 : Phaded\_39, Georgie2\_36
- Track 56 : GaugeLDP\_36
- Track 57 : Che12\_37
- Track 58 : StarStuff\_38, Tomathan\_38
- Track 59 : Jsquared\_35
- Track 60 : Superchunk\_34, Caraxes\_34
- Track 61 : Adzzy\_36
- Track 62 : Malec\_37
- Track 63 : Anselm\_36
- Track 64 : BiancaTri92\_36
- Track 65 : NicoleTera\_38
- Track 66 : SemperFi\_36
- Track 67 : HarryHoudini\_37
- Track 68 : Trooper\_36
- Track 69 : DBQu4n\_38, Duplo\_38, Kerberos\_38
- Track 70 : SweetiePie\_35
- Track 71 : DudeLittle\_34
- Track 72 : Colin\_39
- Track 73 : Fameo\_35
- Track 74 : Retro23\_36, Dalmatian\_36
- Track 75 : Landor\_36
- Track 76 : Leogania\_36
- Track 77 : QueenB2\_35
- Track 78 : Agape74\_36
- Track 79 : Smeagan\_37
- Track 80 : Anthony\_34
- Track 81 : Kinmap\_36
- Track 82 : Microwolf\_37, Taurus\_37, Lilith\_37, JenCasNa\_37
- Track 83 : Dieselweasel\_37, MuchMore\_39, Colbster\_37, DaHudson\_37, Phoebe\_37, JHC117\_37, GtownJaz\_37, Penny1\_37, EpicPhail\_37, LBerry\_37, Aglet\_37, AugsMagnumOpus\_39, GingkoMaracino\_37, Snickers\_37, Mainiac\_37, Pembroke\_37, Cullens\_37, Stagni\_37, Fernando\_37, Watson\_37, Lowa\_37, Bigflo\_37, Malinsilva\_39, Wooldri\_39, P28Green\_37, SoYo\_37, Grub\_37, Beauxregard13\_37, StepMih\_37, PGHhamlin\_39, PotatoSplit\_38, Farber\_37, BreSam8\_37, LugYA\_39

- Track 84 : Kalb97\_37, Reba\_37, Manu\_37, Groupthink\_37, Kalnoky\_37, Phranny\_37, PurpleHaze\_36, JeppNRM\_37, Pawn\_36, Marius\_37, Heliosoles\_36, PhishRPhriends\_35, Calvinny\_37, ACFishhook\_36, Gemma\_36
- Track 85 : Grum1\_37, Vix\_37, MarQuardt\_37, Tiffany\_37, Sabia\_37, Anubis\_39, MoneyMay\_37, Marie\_37, Hercules11\_37
- Track 86 : Pistachio\_35, BlueBird\_35, Scout\_34
- Track 87 : Soshari\_39, AgronaGT15\_37
- Track 88 : Grif\_37, MadMarie\_37, Ollie\_37
- Track 89 : Jobu08\_36
- Track 90 : MA5\_34
- Track 91 : Phoxy\_37, Bxz2\_35, Daishi\_36, LarryKay\_37, Spike509\_37, Methuselah\_36, HashRod\_38, Louie6\_37
- Track 92 : Fred313\_34, HelDan\_34, Idleandcovert\_34
- Track 93 : TNguyen7\_34
- Track 94 : JF2\_34, JF4\_34, MK4\_34, Isca\_34
- Track 95 : BuzzBuzz\_36, TinyPebbles\_37, Misomonster\_39, KADY\_38
- Track 96 : Rummer\_37
- Track 97 : HaveUMetTed\_37
- Track 98 : Rockstar\_34
- Track 99 : Puppy\_35
- Track 100 : BabyRay\_34
- Track 101 : Zetzy\_36
- Track 102 : SoilDragon\_36
- Track 103 : OlanP\_36
- Track 104 : Phantastic\_34
- Track 105 : B1\_32
- Track 106 : HamSlice\_33
- Track 107 : Morpher26\_34, PetiteSangsue\_34, Wile\_34, AbbysRanger\_34, Achebe\_33, Katalie136\_34, Perplexer\_34, Backyardigan\_34, Badger\_34, Bumblebee11\_34, Xena\_34, Cici\_34
- Track 108 : Stasia\_35
- Track 109 : Pumbaa\_34, Phontbonne\_34, Kremtemulon\_34, Ulysses\_33, Phighter1804\_34
- Track 110 : Bartimeaus\_34, Broseidon\_34, Relief\_34, CentreCat\_34, Druantia\_34, Blackmoor\_34, Roosevelt\_34, Baby16\_34, Florean\_34, Eros\_34
- Track 111 : Wilbur\_34, Romney\_34
- Track 112 : Bruiser\_33, Eris\_33, Bombshell\_34, Millski\_33, BubbleTrouble\_34, Funston\_34, Clarenza\_34
- Track 113 : Arturo\_33
- Track 114 : Koreni\_33, ICleared\_34
- Track 115 : Ruin\_34, TygerBlood\_34, Albee\_34, Mazhar510\_34, OKaNui\_35, PeterPeter\_34, Lorenzo\_34, Eapen\_34, Shaka\_34, Avle17\_34, Nemo27\_34, LappelDuVide\_34, Lemur\_34, Caelakin\_34, Wander\_34, Holli\_34, Skipitt\_34, Spino\_34, Cocoaberry\_34, Taquarus\_34, Kyee\_34, Happiness\_34, Chaph\_34, Annyong\_34, Iceman\_35, Maverick\_34, NorthStar\_34, Phacado\_34, Koan\_33, Peaches\_34, Deano\_34, JetBlade\_34, Connomayer\_34, Gadost\_34, Dhanush\_34, Citius\_34, Wizard007\_34, NotAPhaseMom\_34, Lunsford\_35, MeeZee\_34, Thanksgivukkah\_34, Houdini22\_34, YoSam321\_34
- Track 116 : Stink\_35
- Track 117 : Flux\_34, LittleB\_34, Pipcraft\_34, Scamp\_34, KFPoly\_34, Burger\_33
- Track 118 : JoongJeon\_34
- Track 119 : Sparxx\_34, TroyPia\_34, BellusTerra\_34, Eagle\_33, Medusa\_34, Morrow\_34

- Track 120 : TiroTheta9\_34, Jaykayelowell\_34, Huxley\_35, Mayonnaise\_35
- Track 121 : Sabertooth\_34, Shygu2\_34, Palestino\_33
- Track 122 : LochMonster\_34
- Track 123 : Melvin\_35
- Track 124 : Abdiel\_33
- Track 125 : Cintron\_34
- Track 126 : Polymorphads\_34, Phelipe\_34, TinaFeyge\_34, Maxo\_34, Kampy\_34, Commander\_34, Eurydice\_34, Ohfah\_34, Nebs\_34
- Track 127 : AvatarAhPeg\_35
- Track 128 : SheldonCooper\_35
- Track 129 : Tinybot\_33
- Track 130 : Alberto7\_35
- Track 131 : Camperdownii\_33
- Track 132 : Cindaradix\_33
- Track 133 : Mundrea\_34
- Track 134 : Datway\_34
- Track 135 : Kratak\_34
- Track 136 : DirtyDunning\_34
- Track 137 : BangNhom\_34, Cerulean\_35
- Track 138 : Nyxis\_34
- Track 139 : Noelle\_34
- Track 140 : ChampagnePapi\_35
- Track 141 : Rosa24\_33
- Track 142 : Obama12\_35, LHTSCC\_35
- Track 143 : Miramae\_34
- Track 144 : LeoAvram\_34
- Track 145 : SenorClean\_33
- Track 146 : LittleGuy\_34
- Track 147 : Iracema64\_35
- Track 148 : HuhtaEnerson15\_31
- Track 149 : Discoknowium\_31, Micasa\_31, Aragog\_31, AgentM\_31, Conspiracy\_31, Lev2\_31, Jovo\_31, Tiger\_31, Phlorence\_31, ForGetIt\_31, PickleBack\_31
- Track 150 : LittleCherry\_31, Twigg\_31
- Track 151 : Prinasha11\_32, Tarynearal\_30, Bonamassa\_31, George\_30, Dublin\_30, Cuco\_31, Milcery\_31
- Track 152 : Coog\_31, Midas2\_31
- Track 153 : Ghoulboy\_31, Zolita\_30, SydNat\_31
- Track 154 : Naca\_32, Scorpio\_33, PetterN\_33, Chadwick\_33
- Track 155 : Theia\_29
- Track 156 : Airmid\_32, EITiger69\_32, Archetta\_31, Jabiru\_32, Benedict\_32
- Track 157 : Bluefalcon\_30
- Track 158 : UnionJack\_32
- Track 159 : MarysWell\_30
- Track 160 : Swirley\_31
- Track 161 : Phillis\_31
- Track 162 : NearlyHeadless\_31, Expelliarmus\_30
- Track 163 : Danforth\_30
- Track 164 : Stephig9\_31
- Track 165 : Roary\_31
- Track 166 : Astro\_31
- Track 167 : Dixon\_31
- Track 168 : Smeadley\_31
- Track 169 : Groundhog\_30



- Track 170 : Yecey3\_36
- Track 171 : Charm\_34, DreamTeam1\_34
- Track 172 : SheaKeira\_36
- Track 173 : RER2\_23
- Track 174 : Harlequin\_30, Hiro\_30, Bryce\_30, Yoncess\_30, Jester\_30, BobbyDazzler\_30
- Track 175 : Swann\_30, Yogi\_30, Bonanza\_30, Nancinator\_30, RexFury\_30, Belenaria\_30, Espica\_30, UhSalsa\_30, Natosaleda\_30
- Track 176 : TWAMP\_30, Alatin\_30, PhailMary\_29, Phrankenstien\_30, Gollum\_30, StCroix\_30, Alpacados\_29, Erik\_30, Bradshaw\_30, Naiad\_30, Shuman\_30
- Track 177 : Dinger\_30, Rasputin\_30, AngryOrchard\_29, Partridge\_30
- Track 178 : AppleCloud\_28, Krishelle\_30
- Track 179 : Takoda\_30
- Track 180 : RGL3\_23
- Track 181 : Morgana\_128
- Track 182 : Cafasso\_121, ModicumRichard\_121, ObLaDi\_120
- Track 183 : Aleemily\_119
- Track 184 : Jace\_93

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

The start number called the most often in the published annotations is 49, it was called in 279 of the 431 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook\_36, AbbysRanger\_34, Abdiel\_33, Achebe\_33, Acolyte\_35, Adzzy\_36, Aglet\_37, Alatin\_30, Albee\_34, Alberto7\_35, Alpacados\_29, AngryOrchard\_29, Annyong\_34, Anselm\_36, AppleCloud\_28, AugsMagnumOpus\_39, Avle17\_34, Baby16\_34, BabyBack\_35, BabyRay\_34, Backyardigan\_34, Badger\_34, BangNhom\_34, Bartimeaus\_34, Beauxregard13\_37, Belenaria\_30, Bigflo\_37, Blackmoor\_34, BlueBird\_35, BobbyDazzler\_30, Bonanza\_30, Bradman\_35, Bradshaw\_30, BreSam8\_37, Broseidon\_34, Bryce\_30, Buggy\_37, Bumblebee11\_34, Burger\_33, BuzzBuzz\_36, Bxz2\_35, Caelakin\_34, Calvinny\_37, Camperdownii\_33, Caraxes\_34, CentreCat\_34, Cerulean\_35, ChampagnePapi\_35, Chaph\_34, Chargerpower\_36, Che12\_37, Cici\_34, Cindaradix\_33, Cintron\_34, Citius\_34, Cocoaberry\_34, Colbster\_37, Colin\_39, Commander\_34, Connomayer\_34, Crucio\_35, Cullens\_37, D29\_34.1, D32\_38, DBQu4n\_38, DaHudson\_37, Daishi\_36, Dalmatian\_36, Datway\_34, Deano\_34, Dhanush\_34, Dieselweasel\_37, Dinger\_30, DirtyDunning\_34, DontArgue\_33, Drake55\_37, Drake94\_33, Druantia\_34, Duplo\_38, Eapen\_34, EpicPhail\_37, Erik\_30, Eros\_34, Espica\_30, Eurydice\_34, Farber\_37, Fernando\_37, Flare16\_35, Florean\_34, Flux\_34, Gadost\_34, GaugeLDP\_36, Gemma\_36, GingkoMaracino\_37, Gollum\_30, Grif\_37, Groupthink\_37, Grub\_37, GtownJaz\_37, HamSlice\_33, Happiness\_34, Harlequin\_30, HashRod\_38, HaveUMetTed\_37, Heffalump\_36, Heliosoles\_36, Hiro\_30, Holli\_34, Houdini22\_34, ICleared\_34, Iceman\_35, Iracema64\_35, Isca\_34, JF2\_34, JF4\_34, JHC117\_37, Jaan\_38, JeppNRM\_37, Jester\_30, JetBlade\_34, Jobu08\_36, Journey13\_32, Jsquared\_35, KADY\_38, KFPPoly\_34, Kalb97\_37, Kalnoky\_37, Kalpine\_36, Kampy\_34, Katalie136\_34, Kerberos\_38, Kimona\_31, Koan\_33, Koduck\_34, Koreni\_33, Kremtemulon\_34, Krishelle\_30, Kyee\_34, L5\_34.1, LBerry\_37, Landor\_36, LappelDuVide\_34, LarryKay\_37, Lemur\_34, Leogania\_36, LionsBait\_36,

LittleB\_34, LittleGuy\_34, Lorenzo\_34, Louie6\_37, Lowa\_37, LugYA\_39, Lunsford\_35, MA5\_34, MK4\_34, MadMarie\_37, Mainiac\_37, MajorMajor\_35, Malinsilva\_39, Manu\_37, Marius\_37, Maverick\_34, Maxo\_34, Mazhar510\_34, MeeZee\_34, Methuselah\_36, MiculUcigas\_35, Miramae\_34, Misomonster\_39, Morpher26\_34, MuchMore\_39, Mundrea\_34, NaSiaTalie\_35, Naiad\_30, Naji\_38, Nancinator\_30, Natosaleda\_30, Nebs\_34, Nemo27\_34, NicoleTera\_38, Noelle\_34, NorthStar\_34, NotAPhaseMom\_34, NothingSpecial\_36, Nyxis\_34, OKaNui\_35, Odin\_34, Ohfah\_34, OlanP\_36, Ollie\_37, P28Green\_37, PGHhamlin\_39, Palestino\_33, Partridge\_30, Pawn\_36, PeaceMeal1\_33, Peaches\_34, Pembroke\_37, Penny1\_37, Perplexer\_34, PeterPeter\_34, PetiteSangsue\_34, Ph8s\_36, Phacado\_34, PhailMary\_29, Phantastic\_34, Phelipe\_34, Phighter1804\_34, Phillis\_31, PhishRPhriends\_35, Phoebe\_37, Phontbonne\_34, Phoxy\_37, Phrankenstien\_30, Phranny\_37, Pipcraft\_34, Piro94\_35, Pistachio\_35, Polymorphads\_34, Pomar16\_38, Poompha\_33, PotatoSplit\_38, Pumbaa\_34, Puppy\_35, PurpleHaze\_36, QueenB2\_35, Quokka\_34, RGL3\_23, Rasputin\_30, Reba\_37, Relief\_34, Retro23\_36, RexFury\_30, Rockstar\_34, Romney\_34, Roosevelt\_34, Ruin\_34, Sabertooth\_34, Scamp\_34, Scout\_34, SenorClean\_33, Serenity\_36, Severus\_33, Shaka\_34, Shuman\_30, Shygu2\_34, Skipitt\_34, SnapTap\_35, Snickers\_37, SoYo\_37, SoilDragon\_36, Spike509\_37, Spino\_34, StCroix\_30, Stagni\_37, StarStuff\_38, Stasia\_35, StepMih\_37, Stephig9\_31, Stink\_35, Superchunk\_34, Swann\_30, SweetiePie\_35, SwirlSquare\_36, TNguyen7\_34, TWAMP\_30, Takoda\_30, Taquarus\_34, TarsusIV\_34, Thanksgivukkah\_34, TinaFeyge\_34, TinyPebbles\_37, Tinybot\_33, TopsytheTRex\_34, Tomathan\_38, Topanga\_35, Travvers\_38, Trike\_32, Tristan\_36, Trixie\_36, Trooper\_36, Twister\_35, TygerBlood\_34, UhSalsa\_30, Ulysses\_33, WalterMcMickey\_35, Wander\_34, Watson\_37, Wilbur\_34, Wile\_34, Wizard007\_34, Wooldri\_39, Xena\_34, Yecey3\_36, YoSam321\_34, Yogi\_30, Yoncess\_30, Zimmer\_36,

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

- AN3\_34, AN9\_37, AN18\_37, AgronaGT15\_37, Aleemily\_119, Anubis\_39, Arturo\_33, AvatarAhPeg\_35, B1\_32, BellusTerra\_34, Bombshell\_34, Bruiser\_33, BubbleTrouble\_34, C3\_32, Clarenza\_34, Eagle\_33, Eris\_33, Fred313\_34, Funston\_34, Grum1\_37, HelDan\_34, Hercules11\_37, Huxley\_35, Idleandcovert\_34, Jaykayelowell\_34, JenCasNa\_37, JoongJeon\_34, Kratak\_34, LHTSCC\_35, LeoAvram\_34, Lilith\_37, LochMonster\_34, MarQuardt\_37, Marie\_37, Mayonnaise\_35, Medusa\_34, Melvin\_35, Microwolf\_37, Millski\_33, MoneyMay\_37, Morrow\_34, Obama12\_35, Pukovnik\_36, RER2\_23, Rosa24\_33, Rummer\_37, Sabia\_37, SheldonCooper\_35, Sknot\_37, Soshari\_39, Sparxx\_34, Taurus\_37, Tiffany\_37, TiroTheta9\_34, TroyPia\_34, VA6\_34, VC3\_37, Vix\_37, Zetzy\_36,

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

- AbbyPaige\_36, Agape74\_36, AgentM\_31, Airmid\_32, Anthony\_34, Aragog\_31, Archetta\_31, Astro\_31, Bactobuster\_36, Baehexic\_35, Benedict\_32, BiancaTri92\_36, Bluefalcon\_30, Bonamassa\_31, Cafasso\_121, Centaur\_36, Chadwick\_33, Charm\_34, ChipMunk\_37, Chupacabra\_34, Conspiracy\_31, Coog\_31, Cuco\_31, Danforth\_30, DARTHPhader\_37, Dignity\_36, Discoknowium\_31, Dixon\_31, DreamTeam1\_34, Dublin\_30, DudeLittle\_34, Eaglepride\_36, Edison31\_35, EITiger69\_32, Equemioh13\_36, EvilGenius\_37, Expelliarmus\_30, Fameo\_35, FiringLine\_35, ForGetIt\_31, George\_30, Georgie2\_36, Ghouboy\_31, Goose\_35, Gratitude\_35, Groundhog\_30, HarryHoudini\_37, HuhtaEnerson15\_31, IronMan\_37, Iwokeuplikedis\_35, Jabiru\_32, Jace\_93, Jerm\_36, JoshKayV\_36, Jovo\_31, KingCyrus\_37, Kinmap\_36, Kristoff\_36, Larenn\_36, Lev2\_31, Leviathan\_36, LilTurb\_35, LittleCherry\_31, Malec\_37, MarysWell\_30, Micasa\_31, Midas2\_31,

Milcery\_31, ModicumRichard\_121, Morgana\_128, MyraDee\_31, Naca\_32, NearlyHeadless\_31, OKCentral2016\_34, ObLaDi\_120, PetterN\_33, Phaded\_39, Phlorence\_31, PickleBack\_31, Power\_34, Prinashe11\_32, QueenBeesly\_35, Rebeuca\_36, Roary\_31, Scorpia\_33, SemperFi\_36, SheaKeira\_36, Smeadley\_31, Smeagan\_37, SororFago\_39, Swirley\_31, SydNat\_31, Tarynearal\_30, Terrific\_38, Theia\_29, Tiger\_31, Turbido\_35, Twigg\_31, UnionJack\_32, Updawg\_36, WeiHuaDA\_40, Whabigail7\_35, WideWale\_36, XianYue\_36, Zolita\_30,

### Summary by start number:

#### Start 20:

- Found in 76 of 462 ( 16.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.3% of time when present
- Phage (with cluster) where this start called: Sknot\_37 (A2),

#### Start 22:

- Found in 62 of 462 ( 13.4% ) of genes in pham
- Manual Annotations of this start: 9 of 431
- Called 14.5% of time when present
- Phage (with cluster) where this start called: Anubis\_39 (A3), Grum1\_37 (A3), Hercules11\_37 (A3), MarQuardt\_37 (A3), Marie\_37 (A3), MoneyMay\_37 (A3), Sabia\_37 (A3), Tiffany\_37 (A3), Vix\_37 (A3),

#### Start 30:

- Found in 1 of 462 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 431
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zetzy\_36 (A3),

#### Start 40:

- Found in 15 of 462 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 431
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Arturo\_33 (A4),

#### Start 42:

- Found in 67 of 462 ( 14.5% ) of genes in pham
- Manual Annotations of this start: 8 of 431
- Called 11.9% of time when present
- Phage (with cluster) where this start called: Bombshell\_34 (A4), Bruiser\_33 (A4), BubbleTrouble\_34 (A4), Clarenza\_34 (A4), Eris\_33 (A4), Funston\_34 (A4), JoongJeon\_34 (A4), Millski\_33 (A4),

#### Start 43:

- Found in 8 of 462 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 3 of 431
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Fred313\_34 (A3), HelDan\_34 (A3), Idleandcovert\_34 (A3),

#### Start 45:

- Found in 15 of 462 ( 3.2% ) of genes in pham

- Manual Annotations of this start: 2 of 431
- Called 13.3% of time when present
- Phage (with cluster) where this start called: AgronaGT15\_37 (A3), Soshari\_39 (A3),

#### Start 46:

- Found in 46 of 462 ( 10.0% ) of genes in pham
- Manual Annotations of this start: 41 of 431
- Called 95.7% of time when present
- Phage (with cluster) where this start called: AgentM\_31 (A5), Airmid\_32 (A5), Anthony\_34 (A20), Aragog\_31 (A5), Archetta\_31 (A5), Benedict\_32 (A5), Bluefalcon\_30 (A5), Bonamassa\_31 (A5), Chadwick\_33 (A5), Charm\_34 (A9), Conspiracy\_31 (A5), Cuco\_31 (A5), Discoknowium\_31 (A5), DreamTeam1\_34 (A9), Dublin\_30 (A5), ElTiger69\_32 (A5), ForGetIt\_31 (A5), George\_30 (A5), Ghouboy\_31 (A5), HuhtaEnerson15\_31 (A5), Jabiru\_32 (A5), Jace\_93 (singleton), Jovo\_31 (A5), Kinmap\_36 (A21), Lev2\_31 (A5), LittleCherry\_31 (A5), MarysWell\_30 (A5), Micasa\_31 (A5), Milcery\_31 (A5), Naca\_32 (A5), PetterN\_33 (A5), Phlorence\_31 (A5), PickleBack\_31 (A5), Prinash11\_32 (A5), Scorpia\_33 (A5), SheaKeira\_36 (A9), Swirley\_31 (A5), SydNat\_31 (A5), Tarynearl\_30 (A5), Theia\_29 (A5), Tiger\_31 (A5), Twigg\_31 (A5), UnionJack\_32 (A5), Zolita\_30 (A5),

#### Start 47:

- Found in 10 of 462 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 10 of 431
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Astro\_31 (A8), Danforth\_30 (A8), DarthPhader\_37 (A12), Dixon\_31 (A8), Expelliarmus\_30 (A8), Groundhog\_30 (A8), MyraDee\_31 (A18), NearlyHeadless\_31 (A8), Roary\_31 (A8), Smeadley\_31 (A8),

#### Start 48:

- Found in 1 of 462 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 431
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SororFago\_39 (A14),

#### Start 49:

- Found in 357 of 462 ( 77.3% ) of genes in pham
- Manual Annotations of this start: 279 of 431
- Called 83.5% of time when present
- Phage (with cluster) where this start called: ACFishhook\_36 (A3), AbbysRanger\_34 (A4), Abdiel\_33 (A4), Achebe\_33 (A4), Acolyte\_35 (A2), Adzzy\_36 (A2), Aglet\_37 (A3), Alatin\_30 (CA), Albee\_34 (A4), Alberto7\_35 (A4), Alpacados\_29 (CA), AngryOrchard\_29 (CA), Annyong\_34 (A4), Anselm\_36 (A2), AppleCloud\_28 (CA), AugsMagnumOpus\_39 (A3), Avle17\_34 (A4), Baby16\_34 (A4), BabyBack\_35 (A2), BabyRay\_34 (A3), Backyardigan\_34 (A4), Badger\_34 (A4), BangNhom\_34 (A4), Bartimeaus\_34 (A4), Beauxregard13\_37 (A3), Belenaria\_30 (CA), Bigflo\_37 (A3), Blackmoor\_34 (A4), BlueBird\_35 (A3), BobbyDazzler\_30 (CA), Bonanza\_30 (CA), Bradman\_35 (A2), Bradshaw\_30 (CA), BreSam8\_37 (A3), Broseidon\_34 (A4), Bryce\_30 (CA), Buggy\_37 (A2), Bumblebee11\_34 (A4), Burger\_33 (A4), BuzzBuzz\_36 (A3), Bxz2\_35 (A3), Caelakin\_34 (A4), Calvinny\_37 (A3), Camperdownii\_33 (A4), Caraxes\_34 (A2), CentreCat\_34 (A4), Cerulean\_35 (A4), ChampagnePapi\_35 (A4), Chaph\_34 (A4), Chargerpower\_36 (A), Che12\_37 (A2), Cici\_34 (A4), Cindaradix\_33 (A4), Cintron\_34 (A4), Citius\_34 (A4), Cocoaberry\_34 (A4), Colbster\_37 (A3), Colin\_39 (A2), Commander\_34 (A4), Connomayer\_34 (A4),

Crucio\_35 (A2), Cullens\_37 (A3), D29\_34.1 (A2), D32\_38 (A2), DBQu4n\_38 (A2), DaHudson\_37 (A3), Daishi\_36 (A3), Dalmatian\_36 (A2), Datway\_34 (A4), Deano\_34 (A4), Dhanush\_34 (A4), Dieselweasel\_37 (A3), Dinger\_30 (CA), DirtyDunning\_34 (A4), DontArgue\_33 (A10), Drake55\_37 (A2), Drake94\_33 (A10), Druantia\_34 (A4), Duplo\_38 (A2), Eapen\_34 (A4), EpicPhail\_37 (A3), Erik\_30 (CA), Eros\_34 (A4), Espica\_30 (CA), Eurydice\_34 (A4), Farber\_37 (A3), Fernando\_37 (A3), Flare16\_35 (A2), Floean\_34 (A4), Flux\_34 (A4), Gadost\_34 (A4), GaugeLDP\_36 (A2), Gemma\_36 (A3), GingkoMaracino\_37 (A3), Gollum\_30 (CA), Grif\_37 (A3), Groupthink\_37 (A3), Grub\_37 (A3), GtownJaz\_37 (A3), HamSlice\_33 (A4), Happiness\_34 (A4), Harlequin\_30 (CA), HashRod\_38 (A3), HaveUMetTed\_37 (A3), Heffalump\_36 (A2), Heliosoles\_36 (A3), Hiro\_30 (CA), Holli\_34 (A4), Houdini22\_34 (A4), ICleared\_34 (A4), Iceman\_35 (A4), Iracema64\_35 (A4), Isca\_34 (A3), JF2\_34 (A3), JF4\_34 (A3), JHC117\_37 (A3), Jaan\_38 (A2), JeppNRM\_37 (A3), Jester\_30 (CA), JetBlade\_34 (A4), Jobu08\_36 (A3), Journey13\_32 (A2), Jsquared\_35 (A2), KADY\_38 (A3), KFPoly\_34 (A4), Kalb97\_37 (A3), Kalnoky\_37 (A3), Kalpine\_36 (A2), Kampy\_34 (A4), Katalie136\_34 (A4), Kerberos\_38 (A2), Kimona\_31 (A19), Koan\_33 (A4), Koduck\_34 (A2), Koreni\_33 (A4), Kremtemulon\_34 (A4), Krishelle\_30 (CA), Kyee\_34 (A4), L5\_34.1 (A2), LBerry\_37 (A3), Landor\_36 (A2), LappelDuVide\_34 (A4), LarryKay\_37 (A3), Lemur\_34 (A4), Leogania\_36 (A2), LionsBait\_36 (A2), LittleB\_34 (A4), LittleGuy\_34 (A4), Lorenzo\_34 (A4), Louie6\_37 (A3), Iowa\_37 (A3), LugYA\_39 (A3), Lunsford\_35 (A4), MA5\_34 (A3), MK4\_34 (A3), MadMarie\_37 (A3), Mainiac\_37 (A3), MajorMajor\_35 (A2), Malinsilva\_39 (A3), Manu\_37 (A3), Marius\_37 (A3), Maverick\_34 (A4), Maxo\_34 (A4), Mazhar510\_34 (A4), MeeZee\_34 (A4), Methuselah\_36 (A3), MiculUcigas\_35 (A2), Miramae\_34 (A4), Misomonster\_39 (A3), Morpher26\_34 (A4), MuchMore\_39 (A3), Mundrea\_34 (A4), NaSiaTalie\_35 (A2), Naiad\_30 (CA), Naji\_38 (A2), Nancinator\_30 (CA), Natosaleda\_30 (CA), Nebs\_34 (A4), Nemo27\_34 (A4), NicoleTera\_38 (A2), Noelle\_34 (A4), NorthStar\_34 (A4), NotAPhaseMom\_34 (A4), NothingSpecial\_36 (A2), Nyxis\_34 (A4), OKaNui\_35 (A4), Odin\_34 (A2), Ohfah\_34 (A4), OlanP\_36 (A3), Ollie\_37 (A3), P28Green\_37 (A3), PGHhamlin\_39 (A3), Palestino\_33 (A4), Partridge\_30 (CA), Pawn\_36 (A3), PeaceMeal1\_33 (A10), Peaches\_34 (A4), Pembroke\_37 (A3), Penny1\_37 (A3), Perplexer\_34 (A4), PeterPeter\_34 (A4), PetiteSangsue\_34 (A4), Ph8s\_36 (A2), Phacado\_34 (A4), PhailMary\_29 (CA), Phantastic\_34 (A3), Felipe\_34 (A4), Phighter1804\_34 (A4), Phillis\_31 (A8), PhishRPhriends\_35 (A3), Phoebe\_37 (A3), Phontbonne\_34 (A4), Phoxy\_37 (A3), Phrankenstien\_30 (CA), Phranny\_37 (A3), Pipcraft\_34 (A4), Piro94\_35 (A2), Pistachio\_35 (A3), Polymorphads\_34 (A4), Pomar16\_38 (A2), Poompha\_33 (A10), PotatoSplit\_38 (A3), Pumbaa\_34 (A4), Puppy\_35 (A3), PurpleHaze\_36 (A3), QueenB2\_35 (A2), Quokka\_34 (A2), RGL3\_23 (CA), Rasputin\_30 (CA), Reba\_37 (A3), Relief\_34 (A4), Retro23\_36 (A2), RexFury\_30 (CA), Rockstar\_34 (A3), Romney\_34 (A4), Roosevelt\_34 (A4), Ruin\_34 (A4), Sabertooth\_34 (A4), Scamp\_34 (A4), Scout\_34 (A3), SenorClean\_33 (A4), Serenity\_36 (A2), Severus\_33 (A10), Shaka\_34 (A4), Shuman\_30 (CA), Shygu2\_34 (A4), Skipitt\_34 (A4), SnapTap\_35 (A2), Snickers\_37 (A3), SoYo\_37 (A3), SoilDragon\_36 (A3), Spike509\_37 (A3), Spino\_34 (A4), StCroix\_30 (CA), Stagni\_37 (A3), StarStuff\_38 (A2), Stasia\_35 (A4), StepMih\_37 (A3), StepHig9\_31 (A8), Stink\_35 (A4), Superchunk\_34 (A2), Swann\_30 (CA), SweetiePie\_35 (A2), SwirlSquare\_36 (A2), TNguyen7\_34 (A3), TWAMP\_30 (CA), Takoda\_30 (CA), Taquarus\_34 (A4), TarsusIV\_34 (A2), Thanksgivukkah\_34 (A4), TinaFeyge\_34 (A4), TinyPebbles\_37 (A3), Tinybot\_33 (A4), TopsytheTRex\_34 (A2), Tomathan\_38 (A2), Topanga\_35 (A10), Travvers\_38 (A2), Trike\_32 (A10), Tristan\_36 (A2), Trixie\_36 (A2), Trooper\_36 (A2), Twister\_35 (A10), TygerBlood\_34 (A4), UhSalsa\_30 (CA), Ulysses\_33 (A4), WalterMcMickey\_35 (A10), Wander\_34 (A4), Watson\_37 (A3), Wilbur\_34 (A4), Wile\_34 (A4), Wizard007\_34 (A4), Wooldri\_39 (A3), Xena\_34 (A4),

Yecey3\_36 (A9), YoSam321\_34 (A4), Yogi\_30 (CA), Yoncess\_30 (CA), Zimmer\_36 (A12),

Start 50:

- Found in 96 of 462 ( 20.8% ) of genes in pham
- Manual Annotations of this start: 59 of 431
- Called 63.5% of time when present
- Phage (with cluster) where this start called: AN3\_34 (A2), AN9\_37 (A2), ANI8\_37 (A2), AbbyPaige\_36 (A2), Agape74\_36 (A2), Aleemily\_119 (DZ), B1\_32 (A3), Bactobuster\_36 (A2), Baehexic\_35 (A2), BellusTerra\_34 (A4), BiancaTri92\_36 (A2), C3\_32 (A2), Cafasso\_121 (DZ), Centaur\_36 (A2), ChipMunk\_37 (A2), Chupacabra\_34 (A10), Dignity\_36 (A2), Eagle\_33 (A4), Eaglepride\_36 (A10), Edison31\_35 (A10), Equemioh13\_36 (A2), EvilGenius\_37 (A2), Fameo\_35 (A2), FiringLine\_35 (A2), Georgie2\_36 (A2), Goose\_35 (A10), HarryHoudini\_37 (A2), IronMan\_37 (A2), Iwokeuplikedis\_35 (A2), Jerm\_36 (A2), JoshKayV\_36 (A2), KingCyrus\_37 (A2), Kristoff\_36 (A10), Larenn\_36 (A2), Leviathan\_36 (A2), LilTurb\_35 (A2), Malec\_37 (A2), Medusa\_34 (A4), Melvin\_35 (A4), ModicumRichard\_121 (DZ), Morgana\_128 (DZ), Morrow\_34 (A4), OKCentral2016\_34 (A10), ObLaDi\_120 (DZ), Phaded\_39 (A2), Power\_34 (A2), Pukovnik\_36 (A2), QueenBeesly\_35 (A2), Rebeuca\_36 (A10), SemperFi\_36 (A2), Smeagan\_37 (A2), Sparxx\_34 (A4), TroyPia\_34 (A4), Turbido\_35 (A2), Updawg\_36 (A2), VA6\_34 (A2), VC3\_37 (A2), WeiHuaDA\_40 (A2), Whabigail7\_35 (A2), WideWale\_36 (A2), XianYue\_36 (A2),

Start 51:

- Found in 81 of 462 ( 17.5% ) of genes in pham
- Manual Annotations of this start: 2 of 431
- Called 4.9% of time when present
- Phage (with cluster) where this start called: Huxley\_35 (A4), Jaykayelowell\_34 (A4), Mayonnaise\_35 (A4), TiroTheta9\_34 (A4),

Start 53:

- Found in 12 of 462 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: RER2\_23 (CA),

Start 54:

- Found in 24 of 462 ( 5.2% ) of genes in pham
- Manual Annotations of this start: 2 of 431
- Called 8.3% of time when present
- Phage (with cluster) where this start called: AvatarAhPeg\_35 (A4), LochMonster\_34 (A4),

Start 55:

- Found in 39 of 462 ( 8.4% ) of genes in pham
- Manual Annotations of this start: 4 of 431
- Called 10.3% of time when present
- Phage (with cluster) where this start called: LHTSCC\_35 (A4), LeoAvram\_34 (A4), Obama12\_35 (A4), SheldonCooper\_35 (A4),

Start 56:

- Found in 108 of 462 ( 23.4% ) of genes in pham
- Manual Annotations of this start: 1 of 431

- Called 0.9% of time when present
- Phage (with cluster) where this start called: Rummer\_37 (A3),

Start 58:

- Found in 42 of 462 ( 9.1% ) of genes in pham
- Manual Annotations of this start: 2 of 431
- Called 11.9% of time when present
- Phage (with cluster) where this start called: DudeLittle\_34 (A2), Gratitude\_35 (A2), Kratark\_34 (A4), Rosa24\_33 (A4), Terrific\_38 (A2),

Start 61:

- Found in 194 of 462 ( 42.0% ) of genes in pham
- Manual Annotations of this start: 6 of 431
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Coog\_31 (A5), JenCasNa\_37 (A3), Lilith\_37 (A3), Microwolf\_37 (A3), Midas2\_31 (A5), Taurus\_37 (A3),

### Summary by clusters:

There are 17 clusters represented in this pham: A, A21, singleton, A14, A10, A12, CA, A19, A18, A20, A3, A2, A5, A4, A9, A8, DZ,

Info for manual annotations of cluster A:

- Start number 49 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A10:

- Start number 49 was manually annotated 8 times for cluster A10.
- Start number 50 was manually annotated 7 times for cluster A10.

Info for manual annotations of cluster A12:

- Start number 47 was manually annotated 1 time for cluster A12.
- Start number 49 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 48 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A18:

- Start number 47 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 49 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 49 was manually annotated 45 times for cluster A2.
- Start number 50 was manually annotated 40 times for cluster A2.
- Start number 58 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 46 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 22 was manually annotated 9 times for cluster A3.

- Start number 30 was manually annotated 1 time for cluster A3.
- Start number 43 was manually annotated 3 times for cluster A3.
- Start number 45 was manually annotated 2 times for cluster A3.
- Start number 49 was manually annotated 76 times for cluster A3.
- Start number 50 was manually annotated 1 time for cluster A3.
- Start number 56 was manually annotated 1 time for cluster A3.
- Start number 61 was manually annotated 4 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 40 was manually annotated 1 time for cluster A4.
- Start number 42 was manually annotated 8 times for cluster A4.
- Start number 49 was manually annotated 111 times for cluster A4.
- Start number 50 was manually annotated 7 times for cluster A4.
- Start number 51 was manually annotated 2 times for cluster A4.
- Start number 54 was manually annotated 2 times for cluster A4.
- Start number 55 was manually annotated 4 times for cluster A4.
- Start number 58 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A5:

- Start number 46 was manually annotated 36 times for cluster A5.
- Start number 61 was manually annotated 2 times for cluster A5.

Info for manual annotations of cluster A8:

- Start number 47 was manually annotated 8 times for cluster A8.
- Start number 49 was manually annotated 2 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 46 was manually annotated 3 times for cluster A9.
- Start number 49 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster CA:

- Start number 49 was manually annotated 33 times for cluster CA.

Info for manual annotations of cluster DZ:

- Start number 50 was manually annotated 4 times for cluster DZ.

### **Gene Information:**

Gene: ACFishhook\_36 Start: 27097, Stop: 27534, Start Num: 49

Candidate Starts for ACFishhook\_36:

(25, 26995), (Start: 49 @27097 has 279 MA's), (69, 27241), (78, 27283), (89, 27355), (91, 27367), (97, 27400), (98, 27403), (107, 27454), (108, 27457),

Gene: AN3\_34 Start: 26808, Stop: 27242, Start Num: 50

Candidate Starts for AN3\_34:

(Start: 49 @26805 has 279 MA's), (Start: 50 @26808 has 59 MA's), (67, 26928), (69, 26943), (78, 26985), (79, 26994), (88, 27051), (91, 27069), (97, 27102), (98, 27105),

Gene: AN9\_37 Start: 26793, Stop: 27227, Start Num: 50

Candidate Starts for AN9\_37:



(Start: 49 @26790 has 279 MA's), (Start: 50 @26793 has 59 MA's), (67, 26913), (69, 26928), (78, 26970), (79, 26979), (88, 27036), (91, 27054), (97, 27087), (98, 27090),

Gene: ANI8\_37 Start: 26793, Stop: 27227, Start Num: 50

Candidate Starts for ANI8\_37:

(Start: 49 @26790 has 279 MA's), (Start: 50 @26793 has 59 MA's), (67, 26913), (69, 26928), (78, 26970), (79, 26979), (88, 27036), (91, 27054), (97, 27087), (98, 27090),

Gene: AbbyPaige\_36 Start: 27084, Stop: 27524, Start Num: 50

Candidate Starts for AbbyPaige\_36:

(Start: 50 @27084 has 59 MA's), (Start: 55 @27111 has 4 MA's), (66, 27192), (67, 27204), (69, 27225), (78, 27267), (79, 27276), (87, 27330), (88, 27333), (89, 27339), (91, 27351), (96, 27378), (97, 27384),

Gene: AbbysRanger\_34 Start: 26778, Stop: 27203, Start Num: 49

Candidate Starts for AbbysRanger\_34:

(Start: 49 @26778 has 279 MA's), (Start: 61 @26835 has 6 MA's), (63, 26847), (67, 26889), (69, 26904), (70, 26907), (71, 26913), (83, 26988), (88, 27009), (91, 27027), (97, 27060), (98, 27063), (101, 27084),

Gene: Abdiel\_33 Start: 26630, Stop: 27076, Start Num: 49

Candidate Starts for Abdiel\_33:

(5, 26441), (7, 26480), (12, 26492), (Start: 49 @26630 has 279 MA's), (Start: 50 @26633 has 59 MA's), (52, 26639), (Start: 55 @26660 has 4 MA's), (64, 26726), (69, 26774), (70, 26777), (72, 26786), (78, 26816), (87, 26879), (89, 26888), (97, 26933),

Gene: Achebe\_33 Start: 26761, Stop: 27186, Start Num: 49

Candidate Starts for Achebe\_33:

(Start: 49 @26761 has 279 MA's), (Start: 61 @26818 has 6 MA's), (63, 26830), (67, 26872), (69, 26887), (70, 26890), (71, 26896), (83, 26971), (88, 26992), (91, 27010), (97, 27043), (98, 27046), (101, 27067),

Gene: Acolyte\_35 Start: 27459, Stop: 27911, Start Num: 49

Candidate Starts for Acolyte\_35:

(Start: 49 @27459 has 279 MA's), (69, 27603), (83, 27690), (87, 27708), (88, 27711), (89, 27717), (91, 27729), (97, 27762),

Gene: Adzzy\_36 Start: 25549, Stop: 25989, Start Num: 49

Candidate Starts for Adzzy\_36:

(Start: 49 @25549 has 279 MA's), (63, 25630), (70, 25690), (72, 25699), (79, 25738), (89, 25801), (91, 25813), (97, 25846), (98, 25849), (107, 25900), (108, 25903), (110, 25909), (115, 25942), (120, 25951), (126, 25972),

Gene: Agape74\_36 Start: 27060, Stop: 27500, Start Num: 50

Candidate Starts for Agape74\_36:

(Start: 50 @27060 has 59 MA's), (Start: 55 @27087 has 4 MA's), (66, 27168), (67, 27180), (69, 27201), (78, 27243), (79, 27252), (87, 27306), (88, 27309), (89, 27315), (91, 27327), (96, 27354), (97, 27360), (106, 27408),

Gene: AgentM\_31 Start: 26023, Stop: 26442, Start Num: 46

Candidate Starts for AgentM\_31:

(Start: 46 @26023 has 41 MA's), (Start: 61 @26080 has 6 MA's), (69, 26155), (88, 26263), (91, 26281), (96, 26308), (97, 26314), (98, 26317), (106, 26362), (108, 26371),

Gene: Aglet\_37 Start: 27201, Stop: 27632, Start Num: 49

Candidate Starts for Aglet\_37:

(20, 27087), (Start: 22 @27093 has 9 MA's), (Start: 49 @27201 has 279 MA's), (Start: 61 @27270 has 6 MA's), (69, 27339), (70, 27342), (79, 27390), (89, 27453), (91, 27465), (97, 27498), (98, 27501), (107, 27552), (108, 27555), (116, 27594),

Gene: AgronaGT15\_37 Start: 27217, Stop: 27654, Start Num: 45

Candidate Starts for AgronaGT15\_37:

(33, 27139), (Start: 45 @27217 has 2 MA's), (Start: 49 @27223 has 279 MA's), (Start: 56 @27247 has 1 MA's), (67, 27334), (69, 27355), (70, 27358), (75, 27382), (83, 27442), (85, 27448), (88, 27463), (89, 27469), (95, 27511), (97, 27520), (98, 27523), (107, 27574), (108, 27577), (116, 27616),

Gene: Airmid\_32 Start: 25650, Stop: 26069, Start Num: 46

Candidate Starts for Airmid\_32:

(Start: 46 @25650 has 41 MA's), (63, 25719), (64, 25734), (67, 25761), (69, 25782), (85, 25875), (88, 25890), (91, 25908), (96, 25935), (97, 25941), (98, 25944), (106, 25989), (108, 25998),

Gene: Alatin\_30 Start: 24253, Stop: 24729, Start Num: 49

Candidate Starts for Alatin\_30:

(Start: 49 @24253 has 279 MA's), (53, 24268), (69, 24406), (70, 24409), (73, 24421), (75, 24433), (82, 24496), (84, 24502), (91, 24538), (104, 24613), (107, 24634), (108, 24637), (113, 24670),

Gene: Albee\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Albee\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Alberto7\_35 Start: 27068, Stop: 27496, Start Num: 49

Candidate Starts for Alberto7\_35:

(Start: 40 @27026 has 1 MA's), (Start: 49 @27068 has 279 MA's), (Start: 54 @27086 has 2 MA's), (Start: 58 @27110 has 2 MA's), (67, 27179), (69, 27194), (71, 27203), (72, 27206), (75, 27221), (84, 27284), (88, 27302), (89, 27308), (91, 27320), (94, 27344), (96, 27347), (97, 27353),

Gene: Aleemily\_119 Start: 65331, Stop: 64822, Start Num: 50

Candidate Starts for Aleemily\_119:

(1, 65634), (11, 65487), (Start: 49 @65334 has 279 MA's), (Start: 50 @65331 has 59 MA's), (Start: 56 @65307 has 1 MA's), (67, 65220), (78, 65157), (79, 65148), (88, 65094), (89, 65088),

Gene: Alpacados\_29 Start: 24122, Stop: 24598, Start Num: 49

Candidate Starts for Alpacados\_29:

(Start: 49 @24122 has 279 MA's), (53, 24137), (69, 24275), (70, 24278), (73, 24290), (75, 24302), (82, 24365), (84, 24371), (91, 24407), (104, 24482), (107, 24503), (108, 24506), (113, 24539),

Gene: AngryOrchard\_29 Start: 24118, Stop: 24594, Start Num: 49

Candidate Starts for AngryOrchard\_29:

(Start: 49 @24118 has 279 MA's), (69, 24271), (70, 24274), (73, 24286), (75, 24298), (82, 24361), (84, 24367), (91, 24403), (104, 24478), (106, 24493), (107, 24499), (108, 24502),

Gene: Annyong\_34 Start: 26711, Stop: 27136, Start Num: 49

Candidate Starts for Annyong\_34:

(34, 26630), (Start: 42 @26690 has 8 MA's), (Start: 49 @26711 has 279 MA's), (Start: 51 @26717 has 2 MA's), (Start: 56 @26735 has 1 MA's), (Start: 61 @26768 has 6 MA's), (63, 26780), (67, 26822), (69,

26837), (83, 26921), (88, 26942), (89, 26948), (91, 26960), (97, 26993), (98, 26996), (101, 27017),

Gene: Anselm\_36 Start: 27172, Stop: 27609, Start Num: 49

Candidate Starts for Anselm\_36:

(20, 27061), (31, 27085), (Start: 49 @27172 has 279 MA's), (Start: 61 @27241 has 6 MA's), (67, 27295), (69, 27310), (78, 27352), (79, 27361), (87, 27415), (88, 27418), (89, 27424), (91, 27436), (97, 27469),

Gene: Anthony\_34 Start: 25209, Stop: 25643, Start Num: 46

Candidate Starts for Anthony\_34:

(Start: 46 @25209 has 41 MA's), (57, 25242), (62, 25275), (63, 25278), (67, 25320), (71, 25350), (73, 25356), (87, 25446), (91, 25467), (103, 25530), (105, 25539), (107, 25554), (108, 25557), (110, 25563), (114, 25596), (119, 25605), (123, 25614), (126, 25626),

Gene: Anubis\_39 Start: 26978, Stop: 27517, Start Num: 22

Candidate Starts for Anubis\_39:

(20, 26972), (Start: 22 @26978 has 9 MA's), (Start: 49 @27086 has 279 MA's), (Start: 61 @27155 has 6 MA's), (69, 27224), (70, 27227), (79, 27275), (89, 27338), (91, 27350), (97, 27383), (98, 27386), (107, 27437), (108, 27440), (116, 27479),

Gene: AppleCloud\_28 Start: 24128, Stop: 24520, Start Num: 49

Candidate Starts for AppleCloud\_28:

(Start: 49 @24128 has 279 MA's), (69, 24281), (70, 24284), (73, 24296), (75, 24308), (84, 24377), (91, 24413), (104, 24488), (106, 24503), (107, 24509), (108, 24512),

Gene: Aragog\_31 Start: 26053, Stop: 26472, Start Num: 46

Candidate Starts for Aragog\_31:

(Start: 46 @26053 has 41 MA's), (Start: 61 @26110 has 6 MA's), (69, 26185), (88, 26293), (91, 26311), (96, 26338), (97, 26344), (98, 26347), (106, 26392), (108, 26401),

Gene: Archetta\_31 Start: 26159, Stop: 26578, Start Num: 46

Candidate Starts for Archetta\_31:

(Start: 46 @26159 has 41 MA's), (63, 26228), (64, 26243), (67, 26270), (69, 26291), (85, 26384), (88, 26399), (91, 26417), (96, 26444), (97, 26450), (98, 26453), (106, 26498), (108, 26507),

Gene: Arturo\_33 Start: 26841, Stop: 27311, Start Num: 40

Candidate Starts for Arturo\_33:

(Start: 40 @26841 has 1 MA's), (Start: 49 @26883 has 279 MA's), (Start: 54 @26901 has 2 MA's), (Start: 58 @26925 has 2 MA's), (67, 26994), (69, 27009), (71, 27018), (72, 27021), (75, 27036), (84, 27099), (87, 27114), (89, 27123), (91, 27135), (96, 27162), (97, 27168),

Gene: Astro\_31 Start: 25165, Stop: 25587, Start Num: 47

Candidate Starts for Astro\_31:

(11, 25027), (17, 25042), (25, 25066), (26, 25069), (Start: 47 @25165 has 10 MA's), (Start: 61 @25222 has 6 MA's), (67, 25276), (69, 25297), (72, 25309), (75, 25324), (77, 25330), (83, 25384), (84, 25387), (87, 25402), (90, 25414), (91, 25423), (96, 25450), (97, 25456), (98, 25459), (108, 25513), (109, 25516), (112, 25537),

Gene: AugsMagnumOpus\_39 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for AugsMagnumOpus\_39:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: AvatarAhPeg\_35 Start: 27391, Stop: 27801, Start Num: 54

Candidate Starts for AvatarAhPeg\_35:

(Start: 49 @27373 has 279 MA's), (Start: 54 @27391 has 2 MA's), (63, 27442), (67, 27484), (69, 27499), (71, 27508), (72, 27511), (84, 27589), (88, 27607), (89, 27613), (91, 27625), (97, 27658), (104, 27691), (122, 27769),

Gene: Avle17\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Avle17\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: B1\_32 Start: 26231, Stop: 26653, Start Num: 50

Candidate Starts for B1\_32:

(Start: 49 @26228 has 279 MA's), (Start: 50 @26231 has 59 MA's), (67, 26351), (69, 26366), (87, 26471), (89, 26480), (91, 26492), (97, 26525), (107, 26579), (108, 26582), (116, 26615),

Gene: Baby16\_34 Start: 26721, Stop: 27146, Start Num: 49

Candidate Starts for Baby16\_34:

(9, 26574), (19, 26598), (34, 26640), (Start: 42 @26700 has 8 MA's), (Start: 49 @26721 has 279 MA's), (Start: 51 @26727 has 2 MA's), (Start: 56 @26745 has 1 MA's), (Start: 61 @26778 has 6 MA's), (63, 26790), (67, 26832), (69, 26847), (83, 26931), (88, 26952), (89, 26958), (91, 26970), (97, 27003), (98, 27006), (101, 27027),

Gene: BabyBack\_35 Start: 27951, Stop: 28376, Start Num: 49

Candidate Starts for BabyBack\_35:

(Start: 49 @27951 has 279 MA's), (Start: 56 @27975 has 1 MA's), (67, 28062), (69, 28077), (72, 28089), (87, 28182), (89, 28191), (91, 28203), (97, 28236), (98, 28239), (106, 28284), (109, 28296),

Gene: BabyRay\_34 Start: 26773, Stop: 27204, Start Num: 49

Candidate Starts for BabyRay\_34:

(8, 26623), (13, 26635), (16, 26644), (27, 26674), (Start: 49 @26773 has 279 MA's), (Start: 55 @26803 has 4 MA's), (Start: 58 @26827 has 2 MA's), (68, 26899), (69, 26917), (71, 26926), (72, 26929), (78, 26959), (79, 26968), (84, 27007), (87, 27022), (89, 27031), (91, 27043), (97, 27076), (116, 27166),

Gene: Backyardigan\_34 Start: 26773, Stop: 27198, Start Num: 49

Candidate Starts for Backyardigan\_34:

(Start: 49 @26773 has 279 MA's), (Start: 61 @26830 has 6 MA's), (63, 26842), (67, 26884), (69, 26899), (70, 26902), (71, 26908), (83, 26983), (88, 27004), (91, 27022), (97, 27055), (98, 27058), (101, 27079),

Gene: Bactobuster\_36 Start: 28381, Stop: 28815, Start Num: 50

Candidate Starts for Bactobuster\_36:

(Start: 50 @28381 has 59 MA's), (69, 28516), (78, 28558), (87, 28621), (91, 28642), (97, 28675),

Gene: Badger\_34 Start: 26762, Stop: 27187, Start Num: 49

Candidate Starts for Badger\_34:

(Start: 49 @26762 has 279 MA's), (Start: 61 @26819 has 6 MA's), (63, 26831), (67, 26873), (69, 26888), (70, 26891), (71, 26897), (83, 26972), (88, 26993), (91, 27011), (97, 27044), (98, 27047), (101, 27068),

Gene: Baehexic\_35 Start: 27243, Stop: 27677, Start Num: 50

Candidate Starts for Baehexic\_35:

(37, 27177), (Start: 50 @27243 has 59 MA's), (Start: 58 @27294 has 2 MA's), (67, 27363), (69, 27378), (73, 27393), (78, 27420), (79, 27429), (87, 27483), (97, 27537), (98, 27540),

Gene: BangNhom\_34 Start: 26967, Stop: 27413, Start Num: 49

Candidate Starts for BangNhom\_34:

(Start: 49 @26967 has 279 MA's), (Start: 50 @26970 has 59 MA's), (52, 26976), (Start: 55 @26997 has 4 MA's), (64, 27063), (69, 27111), (70, 27114), (72, 27123), (78, 27153), (87, 27216), (88, 27219), (89, 27225), (97, 27270), (122, 27381),

Gene: Bartimeaus\_34 Start: 26712, Stop: 27137, Start Num: 49

Candidate Starts for Bartimeaus\_34:

(9, 26565), (19, 26589), (34, 26631), (Start: 42 @26691 has 8 MA's), (Start: 49 @26712 has 279 MA's), (Start: 51 @26718 has 2 MA's), (Start: 56 @26736 has 1 MA's), (Start: 61 @26769 has 6 MA's), (63, 26781), (67, 26823), (69, 26838), (83, 26922), (88, 26943), (89, 26949), (91, 26961), (97, 26994), (98, 26997), (101, 27018),

Gene: Beauxregard13\_37 Start: 27200, Stop: 27631, Start Num: 49

Candidate Starts for Beauxregard13\_37:

(20, 27086), (Start: 22 @27092 has 9 MA's), (Start: 49 @27200 has 279 MA's), (Start: 61 @27269 has 6 MA's), (69, 27338), (70, 27341), (79, 27389), (89, 27452), (91, 27464), (97, 27497), (98, 27500), (107, 27551), (108, 27554), (116, 27593),

Gene: Belenaria\_30 Start: 24187, Stop: 24663, Start Num: 49

Candidate Starts for Belenaria\_30:

(Start: 49 @24187 has 279 MA's), (69, 24340), (70, 24343), (73, 24355), (75, 24367), (82, 24430), (84, 24436), (91, 24472), (104, 24547), (107, 24568), (108, 24571), (113, 24604),

Gene: BellusTerra\_34 Start: 26633, Stop: 27076, Start Num: 50

Candidate Starts for BellusTerra\_34:

(Start: 49 @26630 has 279 MA's), (Start: 50 @26633 has 59 MA's), (52, 26639), (Start: 55 @26660 has 4 MA's), (64, 26726), (69, 26774), (70, 26777), (72, 26786), (78, 26816), (87, 26879), (89, 26888), (97, 26933),

Gene: Benedict\_32 Start: 25653, Stop: 26072, Start Num: 46

Candidate Starts for Benedict\_32:

(Start: 46 @25653 has 41 MA's), (63, 25722), (64, 25737), (67, 25764), (69, 25785), (85, 25878), (88, 25893), (91, 25911), (96, 25938), (97, 25944), (98, 25947), (106, 25992), (108, 26001),

Gene: BiancaTri92\_36 Start: 28056, Stop: 28490, Start Num: 50

Candidate Starts for BiancaTri92\_36:

(37, 27990), (Start: 50 @28056 has 59 MA's), (69, 28191), (78, 28233), (79, 28242), (87, 28296), (89, 28305), (91, 28317), (97, 28350), (98, 28353),

Gene: Bigflo\_37 Start: 27199, Stop: 27630, Start Num: 49

Candidate Starts for Bigflo\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: Blackmoor\_34 Start: 26712, Stop: 27137, Start Num: 49

Candidate Starts for Blackmoor\_34:

(9, 26565), (19, 26589), (34, 26631), (Start: 42 @26691 has 8 MA's), (Start: 49 @26712 has 279 MA's), (Start: 51 @26718 has 2 MA's), (Start: 56 @26736 has 1 MA's), (Start: 61 @26769 has 6 MA's), (63, 26781), (67, 26823), (69, 26838), (83, 26922), (88, 26943), (89, 26949), (91, 26961), (97, 26994), (98, 26997), (101, 27018),

Gene: BlueBird\_35 Start: 26708, Stop: 27133, Start Num: 49

Candidate Starts for BlueBird\_35:

(20, 26594), (Start: 22 @26600 has 9 MA's), (Start: 43 @26693 has 3 MA's), (Start: 49 @26708 has 279 MA's), (69, 26846), (87, 26951), (88, 26954), (89, 26960), (91, 26972), (97, 27005), (98, 27008), (108, 27062), (116, 27095),

Gene: Bluefalcon\_30 Start: 26103, Stop: 26531, Start Num: 46

Candidate Starts for Bluefalcon\_30:

(Start: 46 @26103 has 41 MA's), (Start: 61 @26160 has 6 MA's), (69, 26235), (79, 26286), (88, 26343), (91, 26361), (97, 26394), (98, 26397), (106, 26442), (108, 26451), (114, 26487),

Gene: BobbyDazzler\_30 Start: 24232, Stop: 24708, Start Num: 49

Candidate Starts for BobbyDazzler\_30:

(Start: 49 @24232 has 279 MA's), (69, 24385), (70, 24388), (73, 24400), (75, 24412), (82, 24475), (84, 24481), (91, 24517), (104, 24592), (107, 24613), (108, 24616),

Gene: Bombshell\_34 Start: 26689, Stop: 27135, Start Num: 42

Candidate Starts for Bombshell\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Bonamassa\_31 Start: 25944, Stop: 26372, Start Num: 46

Candidate Starts for Bonamassa\_31:

(Start: 46 @25944 has 41 MA's), (Start: 61 @26001 has 6 MA's), (69, 26076), (79, 26127), (88, 26184), (91, 26202), (96, 26229), (97, 26235), (98, 26238), (106, 26283), (108, 26292), (114, 26328),

Gene: Bonanza\_30 Start: 24160, Stop: 24636, Start Num: 49

Candidate Starts for Bonanza\_30:

(Start: 49 @24160 has 279 MA's), (69, 24313), (70, 24316), (73, 24328), (75, 24340), (82, 24403), (84, 24409), (91, 24445), (104, 24520), (107, 24541), (108, 24544), (113, 24577),

Gene: Bradman\_35 Start: 26009, Stop: 26440, Start Num: 49

Candidate Starts for Bradman\_35:

(Start: 49 @26009 has 279 MA's), (Start: 61 @26078 has 6 MA's), (72, 26159), (75, 26174), (83, 26234), (84, 26237), (90, 26264), (91, 26273), (97, 26306), (98, 26309), (107, 26360), (108, 26363), (110, 26369), (111, 26384),

Gene: Bradshaw\_30 Start: 24186, Stop: 24662, Start Num: 49

Candidate Starts for Bradshaw\_30:

(Start: 49 @24186 has 279 MA's), (53, 24201), (69, 24339), (70, 24342), (73, 24354), (75, 24366), (82, 24429), (84, 24435), (91, 24471), (104, 24546), (107, 24567), (108, 24570), (113, 24603),

Gene: BreSam8\_37 Start: 27193, Stop: 27624, Start Num: 49

Candidate Starts for BreSam8\_37:

(20, 27079), (Start: 22 @27085 has 9 MA's), (Start: 49 @27193 has 279 MA's), (Start: 61 @27262 has 6 MA's), (69, 27331), (70, 27334), (79, 27382), (89, 27445), (91, 27457), (97, 27490), (98, 27493), (107, 27544), (108, 27547), (116, 27586),

Gene: Broseidon\_34 Start: 26712, Stop: 27137, Start Num: 49

Candidate Starts for Broseidon\_34:

(9, 26565), (19, 26589), (34, 26631), (Start: 42 @26691 has 8 MA's), (Start: 49 @26712 has 279 MA's), (Start: 51 @26718 has 2 MA's), (Start: 56 @26736 has 1 MA's), (Start: 61 @26769 has 6 MA's), (63, 26781), (67, 26823), (69, 26838), (83, 26922), (88, 26943), (89, 26949), (91, 26961), (97, 26994), (98, 26997), (101, 27018),

Gene: Bruiser\_33 Start: 26689, Stop: 27135, Start Num: 42

Candidate Starts for Bruiser\_33:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Bryce\_30 Start: 24161, Stop: 24637, Start Num: 49

Candidate Starts for Bryce\_30:

(Start: 49 @24161 has 279 MA's), (69, 24314), (70, 24317), (73, 24329), (75, 24341), (82, 24404), (84, 24410), (91, 24446), (104, 24521), (107, 24542), (108, 24545),

Gene: BubbleTrouble\_34 Start: 26689, Stop: 27135, Start Num: 42

Candidate Starts for BubbleTrouble\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Buggy\_37 Start: 27385, Stop: 27822, Start Num: 49

Candidate Starts for Buggy\_37:

(20, 27274), (31, 27298), (Start: 49 @27385 has 279 MA's), (Start: 61 @27454 has 6 MA's), (67, 27508), (69, 27523), (78, 27565), (79, 27574), (87, 27628), (89, 27637), (97, 27682), (98, 27685),

Gene: Bumblebee11\_34 Start: 26764, Stop: 27189, Start Num: 49

Candidate Starts for Bumblebee11\_34:

(Start: 49 @26764 has 279 MA's), (Start: 61 @26821 has 6 MA's), (63, 26833), (67, 26875), (69, 26890), (70, 26893), (71, 26899), (83, 26974), (88, 26995), (91, 27013), (97, 27046), (98, 27049), (101, 27070),

Gene: Burger\_33 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Burger\_33:

(34, 26629), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: BuzzBuzz\_36 Start: 27402, Stop: 27833, Start Num: 49

Candidate Starts for BuzzBuzz\_36:

(33, 27318), (Start: 45 @27396 has 2 MA's), (Start: 49 @27402 has 279 MA's), (Start: 56 @27426 has 1 MA's), (67, 27513), (69, 27534), (70, 27537), (83, 27621), (85, 27627), (88, 27642), (89, 27648), (95, 27690), (97, 27699), (98, 27702), (107, 27753), (108, 27756), (116, 27795),

Gene: Bxz2\_35 Start: 27409, Stop: 27840, Start Num: 49

Candidate Starts for Bxz2\_35:

(33, 27325), (Start: 45 @27403 has 2 MA's), (Start: 49 @27409 has 279 MA's), (Start: 56 @27433 has 1 MA's), (67, 27520), (69, 27541), (70, 27544), (75, 27568), (83, 27628), (85, 27634), (88, 27649), (89, 27655), (95, 27697), (97, 27706), (98, 27709), (107, 27760), (108, 27763), (116, 27802),

Gene: C3\_32 Start: 26793, Stop: 27227, Start Num: 50

Candidate Starts for C3\_32:

(Start: 49 @26790 has 279 MA's), (Start: 50 @26793 has 59 MA's), (67, 26913), (69, 26928), (78, 26970), (79, 26979), (88, 27036), (91, 27054), (97, 27087), (98, 27090),

Gene: Caelakin\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Caelakin\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Cafasso\_121 Start: 65936, Stop: 65427, Start Num: 50

Candidate Starts for Cafasso\_121:

(1, 66239), (11, 66092), (Start: 50 @65936 has 59 MA's), (Start: 56 @65912 has 1 MA's), (67, 65825), (78, 65762), (79, 65753), (88, 65699), (89, 65693),

Gene: Calvinny\_37 Start: 27022, Stop: 27459, Start Num: 49

Candidate Starts for Calvinny\_37:

(25, 26920), (Start: 49 @27022 has 279 MA's), (69, 27166), (78, 27208), (89, 27280), (91, 27292), (97, 27325), (98, 27328), (107, 27379), (108, 27382),

Gene: Camperdownii\_33 Start: 26401, Stop: 26829, Start Num: 49

Candidate Starts for Camperdownii\_33:

(23, 26296), (24, 26299), (Start: 40 @26359 has 1 MA's), (Start: 49 @26401 has 279 MA's), (Start: 54 @26419 has 2 MA's), (Start: 58 @26443 has 2 MA's), (67, 26512), (69, 26527), (71, 26536), (72, 26539), (75, 26554), (84, 26617), (88, 26635), (89, 26641), (91, 26653), (96, 26680), (97, 26686),

Gene: Caraxes\_34 Start: 25405, Stop: 25860, Start Num: 49

Candidate Starts for Caraxes\_34:

(Start: 49 @25405 has 279 MA's), (Start: 61 @25474 has 6 MA's), (63, 25486), (67, 25528), (69, 25543), (70, 25546), (71, 25552), (72, 25555), (79, 25594), (91, 25669), (97, 25702), (98, 25705), (107, 25756), (108, 25759),

Gene: Centaur\_36 Start: 27221, Stop: 27655, Start Num: 50

Candidate Starts for Centaur\_36:

(37, 27155), (Start: 50 @27221 has 59 MA's), (Start: 58 @27272 has 2 MA's), (69, 27356), (78, 27398), (79, 27407), (87, 27461), (88, 27464), (89, 27470), (91, 27482), (97, 27515),

Gene: CentreCat\_34 Start: 26713, Stop: 27138, Start Num: 49

Candidate Starts for CentreCat\_34:

(9, 26566), (19, 26590), (34, 26632), (Start: 42 @26692 has 8 MA's), (Start: 49 @26713 has 279 MA's), (Start: 51 @26719 has 2 MA's), (Start: 56 @26737 has 1 MA's), (Start: 61 @26770 has 6 MA's), (63, 26782), (67, 26824), (69, 26839), (83, 26923), (88, 26944), (89, 26950), (91, 26962), (97, 26995), (98, 26998), (101, 27019),

Gene: Cerulean\_35 Start: 26968, Stop: 27414, Start Num: 49

Candidate Starts for Cerulean\_35:

(Start: 49 @26968 has 279 MA's), (Start: 50 @26971 has 59 MA's), (52, 26977), (Start: 55 @26998 has 4 MA's), (64, 27064), (69, 27112), (70, 27115), (72, 27124), (78, 27154), (87, 27217), (88, 27220), (89, 27226), (97, 27271), (122, 27382),

Gene: Chadwick\_33 Start: 25547, Stop: 25975, Start Num: 46



Candidate Starts for Chadwick\_33:

(Start: 46 @25547 has 41 MA's), (63, 25616), (64, 25631), (67, 25658), (69, 25679), (85, 25772), (88, 25787), (91, 25805), (96, 25832), (97, 25838), (98, 25841), (106, 25886), (108, 25895), (114, 25931),

Gene: ChampagnePapi\_35 Start: 26967, Stop: 27413, Start Num: 49

Candidate Starts for ChampagnePapi\_35:

(Start: 49 @26967 has 279 MA's), (Start: 50 @26970 has 59 MA's), (52, 26976), (Start: 55 @26997 has 4 MA's), (64, 27063), (69, 27111), (70, 27114), (72, 27123), (78, 27153), (87, 27216), (89, 27225), (97, 27270), (122, 27381),

Gene: Chaph\_34 Start: 26721, Stop: 27146, Start Num: 49

Candidate Starts for Chaph\_34:

(34, 26640), (Start: 42 @26700 has 8 MA's), (Start: 49 @26721 has 279 MA's), (Start: 51 @26727 has 2 MA's), (Start: 56 @26745 has 1 MA's), (Start: 61 @26778 has 6 MA's), (63, 26790), (67, 26832), (69, 26847), (83, 26931), (88, 26952), (89, 26958), (91, 26970), (97, 27003), (98, 27006), (101, 27027),

Gene: Chargerpower\_36 Start: 26499, Stop: 26924, Start Num: 49

Candidate Starts for Chargerpower\_36:

(Start: 49 @26499 has 279 MA's), (Start: 56 @26523 has 1 MA's), (69, 26625), (80, 26682), (87, 26730), (91, 26751), (97, 26784), (106, 26832),

Gene: Charm\_34 Start: 26512, Stop: 26937, Start Num: 46

Candidate Starts for Charm\_34:

(Start: 46 @26512 has 41 MA's), (Start: 56 @26536 has 1 MA's), (67, 26623), (69, 26644), (75, 26671), (85, 26737), (87, 26749), (91, 26770), (97, 26803), (107, 26857), (108, 26860),

Gene: Che12\_37 Start: 25786, Stop: 26241, Start Num: 49

Candidate Starts for Che12\_37:

(Start: 49 @25786 has 279 MA's), (65, 25891), (67, 25909), (69, 25924), (71, 25933), (72, 25936), (79, 25975), (91, 26050), (97, 26083), (98, 26086), (107, 26137), (108, 26140), (110, 26146),

Gene: ChipMunk\_37 Start: 28511, Stop: 28951, Start Num: 50

Candidate Starts for ChipMunk\_37:

(Start: 50 @28511 has 59 MA's), (Start: 55 @28538 has 4 MA's), (66, 28619), (67, 28631), (69, 28652), (78, 28694), (79, 28703), (87, 28757), (88, 28760), (89, 28766), (91, 28778), (96, 28805), (97, 28811),

Gene: Chupacabra\_34 Start: 26742, Stop: 27158, Start Num: 50

Candidate Starts for Chupacabra\_34:

(35, 26670), (Start: 50 @26742 has 59 MA's), (Start: 58 @26778 has 2 MA's), (67, 26847), (69, 26862), (72, 26874), (88, 26967), (89, 26973), (91, 26985), (97, 27018), (109, 27078),

Gene: Cici\_34 Start: 26758, Stop: 27183, Start Num: 49

Candidate Starts for Cici\_34:

(Start: 49 @26758 has 279 MA's), (Start: 61 @26815 has 6 MA's), (63, 26827), (67, 26869), (69, 26884), (70, 26887), (71, 26893), (83, 26968), (88, 26989), (91, 27007), (97, 27040), (98, 27043), (101, 27064),

Gene: Cindaradix\_33 Start: 26509, Stop: 26937, Start Num: 49

Candidate Starts for Cindaradix\_33:

(Start: 49 @26509 has 279 MA's), (Start: 54 @26527 has 2 MA's), (Start: 58 @26551 has 2 MA's), (67, 26620), (69, 26635), (72, 26647), (84, 26725), (87, 26740), (89, 26749), (91, 26761), (96, 26788), (97, 26794),

Gene: Cintron\_34 Start: 26776, Stop: 27201, Start Num: 49

Candidate Starts for Cintron\_34:

(34, 26695), (41, 26746), (Start: 49 @26776 has 279 MA's), (Start: 51 @26782 has 2 MA's), (Start: 56 @26800 has 1 MA's), (Start: 61 @26833 has 6 MA's), (63, 26845), (67, 26887), (69, 26902), (83, 26986), (88, 27007), (89, 27013), (91, 27025), (97, 27058), (98, 27061), (127, 27184),

Gene: Citius\_34 Start: 26725, Stop: 27150, Start Num: 49

Candidate Starts for Citius\_34:

(34, 26644), (Start: 42 @26704 has 8 MA's), (Start: 49 @26725 has 279 MA's), (Start: 51 @26731 has 2 MA's), (Start: 56 @26749 has 1 MA's), (Start: 61 @26782 has 6 MA's), (63, 26794), (67, 26836), (69, 26851), (83, 26935), (88, 26956), (89, 26962), (91, 26974), (97, 27007), (98, 27010), (101, 27031),

Gene: Clarenza\_34 Start: 26686, Stop: 27132, Start Num: 42

Candidate Starts for Clarenza\_34:

(34, 26626), (Start: 42 @26686 has 8 MA's), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: Cocoaberry\_34 Start: 26714, Stop: 27139, Start Num: 49

Candidate Starts for Cocoaberry\_34:

(34, 26633), (Start: 42 @26693 has 8 MA's), (Start: 49 @26714 has 279 MA's), (Start: 51 @26720 has 2 MA's), (Start: 56 @26738 has 1 MA's), (Start: 61 @26771 has 6 MA's), (63, 26783), (67, 26825), (69, 26840), (83, 26924), (88, 26945), (89, 26951), (91, 26963), (97, 26996), (98, 26999), (101, 27020),

Gene: Colbster\_37 Start: 27200, Stop: 27631, Start Num: 49

Candidate Starts for Colbster\_37:

(20, 27086), (Start: 22 @27092 has 9 MA's), (Start: 49 @27200 has 279 MA's), (Start: 61 @27269 has 6 MA's), (69, 27338), (70, 27341), (79, 27389), (89, 27452), (91, 27464), (97, 27497), (98, 27500), (107, 27551), (108, 27554), (116, 27593),

Gene: Colin\_39 Start: 28219, Stop: 28650, Start Num: 49

Candidate Starts for Colin\_39:

(Start: 49 @28219 has 279 MA's), (66, 28330), (67, 28342), (69, 28363), (77, 28396), (87, 28462), (89, 28471), (91, 28483), (96, 28510), (97, 28516), (100, 28531), (107, 28570), (116, 28612), (124, 28627),

Gene: Commander\_34 Start: 26631, Stop: 27077, Start Num: 49

Candidate Starts for Commander\_34:

(Start: 49 @26631 has 279 MA's), (Start: 50 @26634 has 59 MA's), (52, 26640), (Start: 55 @26661 has 4 MA's), (64, 26727), (69, 26775), (70, 26778), (72, 26787), (78, 26817), (87, 26880), (89, 26889), (97, 26934),

Gene: Connomayer\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Connomayer\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Conspiracy\_31 Start: 25853, Stop: 26272, Start Num: 46

Candidate Starts for Conspiracy\_31:

(Start: 46 @25853 has 41 MA's), (Start: 61 @25910 has 6 MA's), (69, 25985), (88, 26093), (91, 26111), (96, 26138), (97, 26144), (98, 26147), (106, 26192), (108, 26201),

Gene: Coog\_31 Start: 26050, Stop: 26412, Start Num: 61

Candidate Starts for Coog\_31:

(Start: 46 @25993 has 41 MA's), (Start: 61 @26050 has 6 MA's), (69, 26125), (88, 26233), (91, 26251), (96, 26278), (97, 26284), (98, 26287), (106, 26332), (108, 26341),

Gene: Crucio\_35 Start: 26780, Stop: 27217, Start Num: 49

Candidate Starts for Crucio\_35:

(20, 26669), (31, 26693), (Start: 49 @26780 has 279 MA's), (Start: 61 @26849 has 6 MA's), (67, 26903), (69, 26918), (78, 26960), (79, 26969), (87, 27023), (89, 27032), (91, 27044), (97, 27077),

Gene: Cuco\_31 Start: 25943, Stop: 26371, Start Num: 46

Candidate Starts for Cuco\_31:

(Start: 46 @25943 has 41 MA's), (Start: 61 @26000 has 6 MA's), (69, 26075), (79, 26126), (88, 26183), (91, 26201), (96, 26228), (97, 26234), (98, 26237), (106, 26282), (108, 26291), (114, 26327),

Gene: Cullens\_37 Start: 27199, Stop: 27630, Start Num: 49

Candidate Starts for Cullens\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: D29\_34.1 Start: 26865, Stop: 27302, Start Num: 49

Candidate Starts for D29\_34.1:

(Start: 49 @26865 has 279 MA's), (67, 26988), (69, 27003), (78, 27045), (79, 27054), (88, 27111), (91, 27129), (97, 27162), (98, 27165), (101, 27186),

Gene: D32\_38 Start: 26865, Stop: 27302, Start Num: 49

Candidate Starts for D32\_38:

(Start: 49 @26865 has 279 MA's), (67, 26988), (69, 27003), (78, 27045), (79, 27054), (88, 27111), (91, 27129), (97, 27162), (98, 27165), (101, 27186),

Gene: DBQu4n\_38 Start: 26865, Stop: 27302, Start Num: 49

Candidate Starts for DBQu4n\_38:

(Start: 49 @26865 has 279 MA's), (67, 26988), (69, 27003), (78, 27045), (79, 27054), (87, 27108), (88, 27111), (91, 27129), (97, 27162), (98, 27165),

Gene: DaHudson\_37 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for DaHudson\_37:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: Daishi\_36 Start: 26243, Stop: 26674, Start Num: 49

Candidate Starts for Daishi\_36:

(33, 26159), (Start: 45 @26237 has 2 MA's), (Start: 49 @26243 has 279 MA's), (Start: 56 @26267 has 1 MA's), (67, 26354), (69, 26375), (70, 26378), (75, 26402), (83, 26462), (85, 26468), (88, 26483), (89, 26489), (95, 26531), (97, 26540), (98, 26543), (107, 26594), (108, 26597), (116, 26636),

Gene: Dalmatian\_36 Start: 27148, Stop: 27585, Start Num: 49

Candidate Starts for Dalmatian\_36:

(2, 26884), (20, 27037), (31, 27061), (Start: 49 @27148 has 279 MA's), (Start: 61 @27217 has 6 MA's), (67, 27271), (69, 27286), (78, 27328), (79, 27337), (87, 27391), (88, 27394), (89, 27400), (91, 27412), (97, 27445),

Gene: Danforth\_30 Start: 25140, Stop: 25568, Start Num: 47

Candidate Starts for Danforth\_30:

(11, 25002), (17, 25017), (25, 25041), (26, 25044), (Start: 47 @25140 has 10 MA's), (67, 25251), (69, 25272), (75, 25299), (77, 25305), (83, 25359), (84, 25362), (87, 25377), (90, 25389), (91, 25398), (96, 25425), (97, 25431), (98, 25434), (108, 25488),

Gene: DarthPhader\_37 Start: 28677, Stop: 29096, Start Num: 47

Candidate Starts for DarthPhader\_37:

(Start: 47 @28677 has 10 MA's), (Start: 56 @28701 has 1 MA's), (67, 28788), (69, 28809), (85, 28902), (87, 28914), (91, 28935), (96, 28962), (97, 28968), (107, 29022), (108, 29025),

Gene: Datway\_34 Start: 26729, Stop: 27154, Start Num: 49

Candidate Starts for Datway\_34:

(9, 26582), (19, 26606), (Start: 49 @26729 has 279 MA's), (Start: 51 @26735 has 2 MA's), (Start: 56 @26753 has 1 MA's), (Start: 61 @26786 has 6 MA's), (63, 26798), (67, 26840), (69, 26855), (83, 26939), (88, 26960), (91, 26978), (97, 27011), (98, 27014), (101, 27035),

Gene: Deano\_34 Start: 26718, Stop: 27143, Start Num: 49

Candidate Starts for Deano\_34:

(34, 26637), (Start: 42 @26697 has 8 MA's), (Start: 49 @26718 has 279 MA's), (Start: 51 @26724 has 2 MA's), (Start: 56 @26742 has 1 MA's), (Start: 61 @26775 has 6 MA's), (63, 26787), (67, 26829), (69, 26844), (83, 26928), (88, 26949), (89, 26955), (91, 26967), (97, 27000), (98, 27003), (101, 27024),

Gene: Dhanush\_34 Start: 26713, Stop: 27138, Start Num: 49

Candidate Starts for Dhanush\_34:

(34, 26632), (Start: 42 @26692 has 8 MA's), (Start: 49 @26713 has 279 MA's), (Start: 51 @26719 has 2 MA's), (Start: 56 @26737 has 1 MA's), (Start: 61 @26770 has 6 MA's), (63, 26782), (67, 26824), (69, 26839), (83, 26923), (88, 26944), (89, 26950), (91, 26962), (97, 26995), (98, 26998), (101, 27019),

Gene: Dieselweasel\_37 Start: 27202, Stop: 27633, Start Num: 49

Candidate Starts for Dieselweasel\_37:

(20, 27088), (Start: 22 @27094 has 9 MA's), (Start: 49 @27202 has 279 MA's), (Start: 61 @27271 has 6 MA's), (69, 27340), (70, 27343), (79, 27391), (89, 27454), (91, 27466), (97, 27499), (98, 27502), (107, 27553), (108, 27556), (116, 27595),

Gene: Dignity\_36 Start: 27140, Stop: 27580, Start Num: 50

Candidate Starts for Dignity\_36:

(Start: 50 @27140 has 59 MA's), (Start: 55 @27167 has 4 MA's), (66, 27248), (67, 27260), (69, 27281), (78, 27323), (79, 27332), (87, 27386), (88, 27389), (89, 27395), (91, 27407), (96, 27434), (97, 27440),

Gene: Dinger\_30 Start: 24170, Stop: 24646, Start Num: 49

Candidate Starts for Dinger\_30:

(Start: 49 @24170 has 279 MA's), (69, 24323), (70, 24326), (73, 24338), (75, 24350), (82, 24413), (84, 24419), (91, 24455), (104, 24530), (106, 24545), (107, 24551), (108, 24554),

Gene: DirtyDunning\_34 Start: 26767, Stop: 27195, Start Num: 49

Candidate Starts for DirtyDunning\_34:

(Start: 40 @26725 has 1 MA's), (Start: 49 @26767 has 279 MA's), (Start: 54 @26785 has 2 MA's), (Start: 58 @26809 has 2 MA's), (67, 26878), (69, 26893), (71, 26902), (72, 26905), (75, 26920), (84, 26983), (87, 26998), (89, 27007), (91, 27019), (96, 27046), (97, 27052),

Gene: Discoknowium\_31 Start: 26062, Stop: 26481, Start Num: 46

Candidate Starts for Discoknowium\_31:

(Start: 46 @26062 has 41 MA's), (Start: 61 @26119 has 6 MA's), (69, 26194), (88, 26302), (91, 26320), (96, 26347), (97, 26353), (98, 26356), (106, 26401), (108, 26410),

Gene: Dixon\_31 Start: 25159, Stop: 25581, Start Num: 47

Candidate Starts for Dixon\_31:

(11, 25021), (17, 25036), (25, 25060), (26, 25063), (Start: 47 @25159 has 10 MA's), (67, 25270), (69, 25291), (72, 25303), (75, 25318), (77, 25324), (83, 25378), (84, 25381), (87, 25396), (90, 25408), (91, 25417), (96, 25444), (97, 25450), (98, 25453), (108, 25507), (109, 25510), (112, 25531),

Gene: DontArgue\_33 Start: 25569, Stop: 25997, Start Num: 49

Candidate Starts for DontArgue\_33:

(Start: 49 @25569 has 279 MA's), (Start: 56 @25593 has 1 MA's), (59, 25614), (67, 25680), (69, 25695), (72, 25707), (88, 25803), (89, 25809), (91, 25821), (96, 25848), (97, 25854), (121, 25962),

Gene: Drake55\_37 Start: 27281, Stop: 27718, Start Num: 49

Candidate Starts for Drake55\_37:

(33, 27200), (Start: 49 @27281 has 279 MA's), (67, 27404), (69, 27419), (78, 27461), (79, 27470), (87, 27524), (97, 27578),

Gene: Drake94\_33 Start: 25538, Stop: 25972, Start Num: 49

Candidate Starts for Drake94\_33:

(Start: 49 @25538 has 279 MA's), (67, 25649), (69, 25664), (70, 25667), (72, 25676), (84, 25754), (89, 25778), (91, 25790), (97, 25823), (98, 25826),

Gene: DreamTeam1\_34 Start: 26395, Stop: 26820, Start Num: 46

Candidate Starts for DreamTeam1\_34:

(Start: 46 @26395 has 41 MA's), (Start: 56 @26419 has 1 MA's), (67, 26506), (69, 26527), (75, 26554), (85, 26620), (87, 26632), (91, 26653), (97, 26686), (107, 26740), (108, 26743),

Gene: Druantia\_34 Start: 26713, Stop: 27138, Start Num: 49

Candidate Starts for Druantia\_34:

(9, 26566), (19, 26590), (34, 26632), (Start: 42 @26692 has 8 MA's), (Start: 49 @26713 has 279 MA's), (Start: 51 @26719 has 2 MA's), (Start: 56 @26737 has 1 MA's), (Start: 61 @26770 has 6 MA's), (63, 26782), (67, 26824), (69, 26839), (83, 26923), (88, 26944), (89, 26950), (91, 26962), (97, 26995), (98, 26998), (101, 27019),

Gene: Dublin\_30 Start: 25912, Stop: 26340, Start Num: 46

Candidate Starts for Dublin\_30:

(Start: 46 @25912 has 41 MA's), (Start: 61 @25969 has 6 MA's), (69, 26044), (79, 26095), (88, 26152), (91, 26170), (96, 26197), (97, 26203), (98, 26206), (106, 26251), (108, 26260), (114, 26296),

Gene: DudeLittle\_34 Start: 26868, Stop: 27251, Start Num: 58

Candidate Starts for DudeLittle\_34:

(Start: 50 @26817 has 59 MA's), (Start: 58 @26868 has 2 MA's), (69, 26952), (78, 26994), (87, 27057), (89, 27066), (91, 27078), (97, 27111),

Gene: Duplo\_38 Start: 26903, Stop: 27340, Start Num: 49

Candidate Starts for Duplo\_38:

(Start: 49 @26903 has 279 MA's), (67, 27026), (69, 27041), (78, 27083), (79, 27092), (87, 27146), (88, 27149), (91, 27167), (97, 27200), (98, 27203),

Gene: Eagle\_33 Start: 26657, Stop: 27100, Start Num: 50

Candidate Starts for Eagle\_33:

(Start: 49 @26654 has 279 MA's), (Start: 50 @26657 has 59 MA's), (52, 26663), (Start: 55 @26684 has 4 MA's), (64, 26750), (69, 26798), (70, 26801), (72, 26810), (78, 26840), (87, 26903), (89, 26912), (97, 26957),

Gene: Eaglepride\_36 Start: 26923, Stop: 27351, Start Num: 50

Candidate Starts for Eaglepride\_36:

(35, 26851), (Start: 50 @26923 has 59 MA's), (Start: 58 @26962 has 2 MA's), (67, 27031), (69, 27046), (72, 27058), (88, 27151), (89, 27157), (91, 27169), (97, 27202), (109, 27262),

Gene: Eapen\_34 Start: 26708, Stop: 27133, Start Num: 49

Candidate Starts for Eapen\_34:

(34, 26627), (Start: 42 @26687 has 8 MA's), (Start: 49 @26708 has 279 MA's), (Start: 51 @26714 has 2 MA's), (Start: 56 @26732 has 1 MA's), (Start: 61 @26765 has 6 MA's), (63, 26777), (67, 26819), (69, 26834), (83, 26918), (88, 26939), (89, 26945), (91, 26957), (97, 26990), (98, 26993), (101, 27014),

Gene: Edison31\_35 Start: 26953, Stop: 27378, Start Num: 50

Candidate Starts for Edison31\_35:

(35, 26881), (Start: 50 @26953 has 59 MA's), (67, 27058), (69, 27073), (72, 27085), (88, 27178), (89, 27184), (91, 27196), (97, 27229), (106, 27277), (121, 27337),

Gene: EITiger69\_32 Start: 25651, Stop: 26070, Start Num: 46

Candidate Starts for EITiger69\_32:

(Start: 46 @25651 has 41 MA's), (63, 25720), (64, 25735), (67, 25762), (69, 25783), (85, 25876), (88, 25891), (91, 25909), (96, 25936), (97, 25942), (98, 25945), (106, 25990), (108, 25999),

Gene: EpicPhail\_37 Start: 27200, Stop: 27631, Start Num: 49

Candidate Starts for EpicPhail\_37:

(20, 27086), (Start: 22 @27092 has 9 MA's), (Start: 49 @27200 has 279 MA's), (Start: 61 @27269 has 6 MA's), (69, 27338), (70, 27341), (79, 27389), (89, 27452), (91, 27464), (97, 27497), (98, 27500), (107, 27551), (108, 27554), (116, 27593),

Gene: Equemioh13\_36 Start: 27224, Stop: 27658, Start Num: 50

Candidate Starts for Equemioh13\_36:

(37, 27158), (Start: 50 @27224 has 59 MA's), (Start: 58 @27275 has 2 MA's), (67, 27344), (69, 27359), (73, 27374), (78, 27401), (79, 27410), (87, 27464), (97, 27518), (98, 27521),

Gene: Erik\_30 Start: 24184, Stop: 24660, Start Num: 49

Candidate Starts for Erik\_30:

(Start: 49 @24184 has 279 MA's), (53, 24199), (69, 24337), (70, 24340), (73, 24352), (75, 24364), (82, 24427), (84, 24433), (91, 24469), (104, 24544), (107, 24565), (108, 24568), (113, 24601),

Gene: Eris\_33 Start: 26689, Stop: 27135, Start Num: 42

Candidate Starts for Eris\_33:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Eros\_34 Start: 26712, Stop: 27137, Start Num: 49

Candidate Starts for Eros\_34:

(9, 26565), (19, 26589), (34, 26631), (Start: 42 @26691 has 8 MA's), (Start: 49 @26712 has 279 MA's), (Start: 51 @26718 has 2 MA's), (Start: 56 @26736 has 1 MA's), (Start: 61 @26769 has 6 MA's), (63, 26781), (67, 26823), (69, 26838), (83, 26922), (88, 26943), (89, 26949), (91, 26961), (97, 26994), (98, 26997), (101, 27018),

Gene: Espica\_30 Start: 24187, Stop: 24663, Start Num: 49

Candidate Starts for Espica\_30:

(Start: 49 @24187 has 279 MA's), (69, 24340), (70, 24343), (73, 24355), (75, 24367), (82, 24430), (84, 24436), (91, 24472), (104, 24547), (107, 24568), (108, 24571), (113, 24604),

Gene: Eurydice\_34 Start: 26629, Stop: 27075, Start Num: 49

Candidate Starts for Eurydice\_34:

(Start: 49 @26629 has 279 MA's), (Start: 50 @26632 has 59 MA's), (52, 26638), (Start: 55 @26659 has 4 MA's), (64, 26725), (69, 26773), (70, 26776), (72, 26785), (78, 26815), (87, 26878), (89, 26887), (97, 26932),

Gene: EvilGenius\_37 Start: 28515, Stop: 28955, Start Num: 50

Candidate Starts for EvilGenius\_37:

(Start: 50 @28515 has 59 MA's), (Start: 55 @28542 has 4 MA's), (66, 28623), (67, 28635), (69, 28656), (78, 28698), (79, 28707), (87, 28761), (88, 28764), (89, 28770), (91, 28782), (96, 28809), (97, 28815),

Gene: Expelliarmus\_30 Start: 25126, Stop: 25554, Start Num: 47

Candidate Starts for Expelliarmus\_30:

(11, 24988), (17, 25003), (25, 25027), (26, 25030), (Start: 47 @25126 has 10 MA's), (67, 25237), (69, 25258), (72, 25270), (75, 25285), (77, 25291), (83, 25345), (84, 25348), (87, 25363), (90, 25375), (91, 25384), (96, 25411), (97, 25417), (98, 25420), (108, 25474),

Gene: Fameo\_35 Start: 26939, Stop: 27373, Start Num: 50

Candidate Starts for Fameo\_35:

(Start: 50 @26939 has 59 MA's), (Start: 58 @26990 has 2 MA's), (69, 27074), (78, 27116), (87, 27179), (89, 27188), (91, 27200), (97, 27233),

Gene: Farber\_37 Start: 27193, Stop: 27624, Start Num: 49

Candidate Starts for Farber\_37:

(20, 27079), (Start: 22 @27085 has 9 MA's), (Start: 49 @27193 has 279 MA's), (Start: 61 @27262 has 6 MA's), (69, 27331), (70, 27334), (79, 27382), (89, 27445), (91, 27457), (97, 27490), (98, 27493), (107, 27544), (108, 27547), (116, 27586),

Gene: Fernando\_37 Start: 27199, Stop: 27630, Start Num: 49

Candidate Starts for Fernando\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: FiringLine\_35 Start: 26764, Stop: 27198, Start Num: 50

Candidate Starts for FiringLine\_35:

(Start: 50 @26764 has 59 MA's), (69, 26899), (78, 26941), (87, 27004), (89, 27013), (91, 27025), (97, 27058),

Gene: Flare16\_35 Start: 26893, Stop: 27330, Start Num: 49

Candidate Starts for Flare16\_35:

(20, 26782), (31, 26806), (Start: 49 @26893 has 279 MA's), (Start: 61 @26962 has 6 MA's), (67, 27016), (69, 27031), (78, 27073), (79, 27082), (87, 27136), (89, 27145), (97, 27190), (98, 27193),

Gene: Florean\_34 Start: 26709, Stop: 27134, Start Num: 49

Candidate Starts for Florean\_34:

(9, 26562), (19, 26586), (34, 26628), (Start: 42 @26688 has 8 MA's), (Start: 49 @26709 has 279 MA's), (Start: 51 @26715 has 2 MA's), (Start: 56 @26733 has 1 MA's), (Start: 61 @26766 has 6 MA's), (63, 26778), (67, 26820), (69, 26835), (83, 26919), (88, 26940), (89, 26946), (91, 26958), (97, 26991), (98, 26994), (101, 27015),

Gene: Flux\_34 Start: 26712, Stop: 27137, Start Num: 49

Candidate Starts for Flux\_34:

(34, 26631), (Start: 49 @26712 has 279 MA's), (Start: 51 @26718 has 2 MA's), (Start: 56 @26736 has 1 MA's), (Start: 61 @26769 has 6 MA's), (63, 26781), (67, 26823), (69, 26838), (83, 26922), (88, 26943), (89, 26949), (91, 26961), (97, 26994), (98, 26997), (101, 27018),

Gene: ForGetIt\_31 Start: 25878, Stop: 26297, Start Num: 46

Candidate Starts for ForGetIt\_31:

(Start: 46 @25878 has 41 MA's), (Start: 61 @25935 has 6 MA's), (69, 26010), (88, 26118), (91, 26136), (96, 26163), (97, 26169), (98, 26172), (106, 26217), (108, 26226),

Gene: Fred313\_34 Start: 26445, Stop: 26885, Start Num: 43

Candidate Starts for Fred313\_34:

(20, 26346), (Start: 22 @26352 has 9 MA's), (Start: 43 @26445 has 3 MA's), (Start: 49 @26460 has 279 MA's), (69, 26598), (87, 26703), (88, 26706), (89, 26712), (91, 26724), (97, 26757), (98, 26760), (108, 26814), (116, 26847),

Gene: Funston\_34 Start: 26689, Stop: 27135, Start Num: 42

Candidate Starts for Funston\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Gadost\_34 Start: 26714, Stop: 27139, Start Num: 49

Candidate Starts for Gadost\_34:

(34, 26633), (Start: 42 @26693 has 8 MA's), (Start: 49 @26714 has 279 MA's), (Start: 51 @26720 has 2 MA's), (Start: 56 @26738 has 1 MA's), (Start: 61 @26771 has 6 MA's), (63, 26783), (67, 26825), (69, 26840), (83, 26924), (88, 26945), (89, 26951), (91, 26963), (97, 26996), (98, 26999), (101, 27020),

Gene: GaugeLDP\_36 Start: 27572, Stop: 28009, Start Num: 49

Candidate Starts for GaugeLDP\_36:

(33, 27491), (Start: 49 @27572 has 279 MA's), (69, 27710), (78, 27752), (79, 27761), (87, 27815), (88, 27818), (89, 27824), (97, 27869), (98, 27872), (106, 27917),

Gene: Gemma\_36 Start: 27018, Stop: 27455, Start Num: 49

Candidate Starts for Gemma\_36:

(25, 26916), (Start: 49 @27018 has 279 MA's), (69, 27162), (78, 27204), (89, 27276), (91, 27288), (97, 27321), (98, 27324), (107, 27375), (108, 27378),

Gene: George\_30 Start: 25944, Stop: 26372, Start Num: 46

Candidate Starts for George\_30:

(Start: 46 @25944 has 41 MA's), (Start: 61 @26001 has 6 MA's), (69, 26076), (79, 26127), (88, 26184), (91, 26202), (96, 26229), (97, 26235), (98, 26238), (106, 26283), (108, 26292), (114, 26328),

Gene: Georgie2\_36 Start: 26809, Stop: 27243, Start Num: 50

Candidate Starts for Georgie2\_36:

(Start: 50 @26809 has 59 MA's), (69, 26944), (78, 26986), (87, 27049), (89, 27058), (91, 27070), (97, 27103),



Gene: Ghouboy\_31 Start: 26193, Stop: 26615, Start Num: 46

Candidate Starts for Ghouboy\_31:

(Start: 46 @26193 has 41 MA's), (Start: 58 @26235 has 2 MA's), (Start: 61 @26250 has 6 MA's), (69, 26325), (79, 26376), (88, 26433), (96, 26478), (97, 26484), (98, 26487), (106, 26532), (108, 26541),

Gene: GingkoMaracino\_37 Start: 27086, Stop: 27517, Start Num: 49

Candidate Starts for GingkoMaracino\_37:

(20, 26972), (Start: 22 @26978 has 9 MA's), (Start: 49 @27086 has 279 MA's), (Start: 61 @27155 has 6 MA's), (69, 27224), (70, 27227), (79, 27275), (89, 27338), (91, 27350), (97, 27383), (98, 27386), (107, 27437), (108, 27440), (116, 27479),

Gene: Gollum\_30 Start: 24186, Stop: 24662, Start Num: 49

Candidate Starts for Gollum\_30:

(Start: 49 @24186 has 279 MA's), (53, 24201), (69, 24339), (70, 24342), (73, 24354), (75, 24366), (82, 24429), (84, 24435), (91, 24471), (104, 24546), (107, 24567), (108, 24570), (113, 24603),

Gene: Goose\_35 Start: 26546, Stop: 26962, Start Num: 50

Candidate Starts for Goose\_35:

(35, 26474), (Start: 50 @26546 has 59 MA's), (Start: 58 @26582 has 2 MA's), (67, 26651), (69, 26666), (72, 26678), (88, 26771), (89, 26777), (91, 26789), (97, 26822), (109, 26882),

Gene: Gratitude\_35 Start: 27275, Stop: 27658, Start Num: 58

Candidate Starts for Gratitude\_35:

(37, 27158), (Start: 50 @27224 has 59 MA's), (Start: 58 @27275 has 2 MA's), (67, 27344), (69, 27359), (73, 27374), (78, 27401), (79, 27410), (87, 27464), (97, 27518), (98, 27521),

Gene: Grif\_37 Start: 27274, Stop: 27705, Start Num: 49

Candidate Starts for Grif\_37:

(20, 27160), (Start: 22 @27166 has 9 MA's), (Start: 49 @27274 has 279 MA's), (69, 27412), (70, 27415), (79, 27463), (89, 27526), (91, 27538), (97, 27571), (98, 27574), (107, 27625), (108, 27628), (116, 27667),

Gene: Groundhog\_30 Start: 25130, Stop: 25552, Start Num: 47

Candidate Starts for Groundhog\_30:

(11, 24989), (17, 25004), (25, 25028), (26, 25031), (28, 25034), (Start: 47 @25130 has 10 MA's), (Start: 61 @25187 has 6 MA's), (67, 25241), (69, 25262), (72, 25274), (75, 25289), (77, 25295), (83, 25349), (84, 25352), (87, 25367), (90, 25379), (91, 25388), (96, 25415), (97, 25421), (98, 25424), (108, 25478), (109, 25481), (112, 25502),

Gene: Groupthink\_37 Start: 27022, Stop: 27459, Start Num: 49

Candidate Starts for Groupthink\_37:

(25, 26920), (Start: 49 @27022 has 279 MA's), (69, 27166), (78, 27208), (89, 27280), (91, 27292), (97, 27325), (98, 27328), (107, 27379), (108, 27382),

Gene: Grub\_37 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for Grub\_37:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: Grum1\_37 Start: 27091, Stop: 27630, Start Num: 22

Candidate Starts for Grum1\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: GtownJaz\_37 Start: 27201, Stop: 27632, Start Num: 49

Candidate Starts for GtownJaz\_37:

(20, 27087), (Start: 22 @27093 has 9 MA's), (Start: 49 @27201 has 279 MA's), (Start: 61 @27270 has 6 MA's), (69, 27339), (70, 27342), (79, 27390), (89, 27453), (91, 27465), (97, 27498), (98, 27501), (107, 27552), (108, 27555), (116, 27594),

Gene: HamSlice\_33 Start: 26708, Stop: 27133, Start Num: 49

Candidate Starts for HamSlice\_33:

(34, 26627), (Start: 42 @26687 has 8 MA's), (Start: 49 @26708 has 279 MA's), (Start: 51 @26714 has 2 MA's), (Start: 56 @26732 has 1 MA's), (Start: 61 @26765 has 6 MA's), (63, 26777), (67, 26819), (69, 26834), (83, 26918), (88, 26939), (89, 26945), (91, 26957), (97, 26990), (98, 26993), (101, 27014), (127, 27116),

Gene: Happiness\_34 Start: 26715, Stop: 27140, Start Num: 49

Candidate Starts for Happiness\_34:

(34, 26634), (Start: 42 @26694 has 8 MA's), (Start: 49 @26715 has 279 MA's), (Start: 51 @26721 has 2 MA's), (Start: 56 @26739 has 1 MA's), (Start: 61 @26772 has 6 MA's), (63, 26784), (67, 26826), (69, 26841), (83, 26925), (88, 26946), (89, 26952), (91, 26964), (97, 26997), (98, 27000), (101, 27021),

Gene: Harlequin\_30 Start: 24191, Stop: 24667, Start Num: 49

Candidate Starts for Harlequin\_30:

(Start: 49 @24191 has 279 MA's), (69, 24344), (70, 24347), (73, 24359), (75, 24371), (82, 24434), (84, 24440), (91, 24476), (104, 24551), (107, 24572), (108, 24575),

Gene: HarryHoudini\_37 Start: 27323, Stop: 27757, Start Num: 50

Candidate Starts for HarryHoudini\_37:

(37, 27257), (Start: 50 @27323 has 59 MA's), (Start: 58 @27374 has 2 MA's), (69, 27458), (78, 27500), (79, 27509), (87, 27563), (89, 27572), (91, 27584), (97, 27617), (98, 27620),

Gene: HashRod\_38 Start: 27402, Stop: 27833, Start Num: 49

Candidate Starts for HashRod\_38:

(33, 27318), (Start: 45 @27396 has 2 MA's), (Start: 49 @27402 has 279 MA's), (Start: 56 @27426 has 1 MA's), (67, 27513), (69, 27534), (70, 27537), (75, 27561), (83, 27621), (85, 27627), (88, 27642), (89, 27648), (95, 27690), (97, 27699), (98, 27702), (107, 27753), (108, 27756), (116, 27795),

Gene: HaveUMetTed\_37 Start: 27015, Stop: 27452, Start Num: 49

Candidate Starts for HaveUMetTed\_37:

(25, 26913), (Start: 49 @27015 has 279 MA's), (69, 27159), (78, 27201), (89, 27273), (97, 27318), (98, 27321), (107, 27372), (108, 27375),

Gene: Heffalump\_36 Start: 28094, Stop: 28525, Start Num: 49

Candidate Starts for Heffalump\_36:

(Start: 49 @28094 has 279 MA's), (63, 28163), (67, 28205), (69, 28226), (78, 28268), (79, 28277), (87, 28331), (88, 28334), (89, 28340), (91, 28352), (97, 28385),

Gene: HelDan\_34 Start: 26753, Stop: 27193, Start Num: 43

Candidate Starts for HelDan\_34:

(20, 26654), (Start: 22 @26660 has 9 MA's), (Start: 43 @26753 has 3 MA's), (Start: 49 @26768 has 279 MA's), (69, 26906), (87, 27011), (88, 27014), (89, 27020), (91, 27032), (97, 27065), (98, 27068),

(108, 27122), (116, 27155),

Gene: Heliosoles\_36 Start: 27022, Stop: 27459, Start Num: 49

Candidate Starts for Heliosoles\_36:

(25, 26920), (Start: 49 @27022 has 279 MA's), (69, 27166), (78, 27208), (89, 27280), (91, 27292), (97, 27325), (98, 27328), (107, 27379), (108, 27382),

Gene: Hercules11\_37 Start: 27100, Stop: 27639, Start Num: 22

Candidate Starts for Hercules11\_37:

(20, 27094), (Start: 22 @27100 has 9 MA's), (Start: 49 @27208 has 279 MA's), (Start: 61 @27277 has 6 MA's), (69, 27346), (70, 27349), (79, 27397), (89, 27460), (91, 27472), (97, 27505), (98, 27508), (107, 27559), (108, 27562), (116, 27601),

Gene: Hiro\_30 Start: 24446, Stop: 24922, Start Num: 49

Candidate Starts for Hiro\_30:

(Start: 49 @24446 has 279 MA's), (69, 24599), (70, 24602), (73, 24614), (75, 24626), (82, 24689), (84, 24695), (91, 24731), (104, 24806), (107, 24827), (108, 24830),

Gene: Holli\_34 Start: 26500, Stop: 26925, Start Num: 49

Candidate Starts for Holli\_34:

(34, 26419), (Start: 42 @26479 has 8 MA's), (Start: 49 @26500 has 279 MA's), (Start: 51 @26506 has 2 MA's), (Start: 56 @26524 has 1 MA's), (Start: 61 @26557 has 6 MA's), (63, 26569), (67, 26611), (69, 26626), (83, 26710), (88, 26731), (89, 26737), (91, 26749), (97, 26782), (98, 26785), (101, 26806),

Gene: Houdini22\_34 Start: 26714, Stop: 27139, Start Num: 49

Candidate Starts for Houdini22\_34:

(34, 26633), (Start: 42 @26693 has 8 MA's), (Start: 49 @26714 has 279 MA's), (Start: 51 @26720 has 2 MA's), (Start: 56 @26738 has 1 MA's), (Start: 61 @26771 has 6 MA's), (63, 26783), (67, 26825), (69, 26840), (83, 26924), (88, 26945), (89, 26951), (91, 26963), (97, 26996), (98, 26999), (101, 27020),

Gene: HuhtaEnerson15\_31 Start: 25944, Stop: 26363, Start Num: 46

Candidate Starts for HuhtaEnerson15\_31:

(Start: 46 @25944 has 41 MA's), (Start: 61 @26001 has 6 MA's), (69, 26076), (79, 26127), (88, 26184), (96, 26229), (97, 26235), (98, 26238), (106, 26283), (108, 26292),

Gene: Huxley\_35 Start: 26777, Stop: 27196, Start Num: 51

Candidate Starts for Huxley\_35:

(34, 26690), (Start: 42 @26750 has 8 MA's), (Start: 49 @26771 has 279 MA's), (Start: 51 @26777 has 2 MA's), (Start: 56 @26795 has 1 MA's), (Start: 61 @26828 has 6 MA's), (63, 26840), (67, 26882), (69, 26897), (83, 26981), (88, 27002), (89, 27008), (91, 27020), (97, 27053), (98, 27056), (101, 27077),

Gene: ICleared\_34 Start: 26760, Stop: 27188, Start Num: 49

Candidate Starts for ICleared\_34:

(Start: 40 @26718 has 1 MA's), (Start: 49 @26760 has 279 MA's), (Start: 54 @26778 has 2 MA's), (Start: 58 @26802 has 2 MA's), (67, 26871), (69, 26886), (71, 26895), (72, 26898), (75, 26913), (84, 26976), (88, 26994), (89, 27000), (91, 27012), (94, 27036), (96, 27039), (97, 27045),

Gene: Iceman\_35 Start: 26999, Stop: 27424, Start Num: 49

Candidate Starts for Iceman\_35:

(34, 26918), (Start: 42 @26978 has 8 MA's), (Start: 49 @26999 has 279 MA's), (Start: 51 @27005 has 2 MA's), (Start: 56 @27023 has 1 MA's), (Start: 61 @27056 has 6 MA's), (63, 27068), (67, 27110), (69, 27125), (83, 27209), (88, 27230), (89, 27236), (91, 27248), (97, 27281), (98, 27284), (101, 27305),

Gene: Idleandcovert\_34 Start: 26693, Stop: 27133, Start Num: 43

Candidate Starts for Idleandcovert\_34:

(20, 26594), (Start: 22 @26600 has 9 MA's), (Start: 43 @26693 has 3 MA's), (Start: 49 @26708 has 279 MA's), (69, 26846), (87, 26951), (88, 26954), (89, 26960), (91, 26972), (97, 27005), (98, 27008), (108, 27062), (116, 27095),

Gene: Iracema64\_35 Start: 27082, Stop: 27510, Start Num: 49

Candidate Starts for Iracema64\_35:

(Start: 40 @27040 has 1 MA's), (Start: 49 @27082 has 279 MA's), (Start: 54 @27100 has 2 MA's), (Start: 58 @27124 has 2 MA's), (67, 27193), (69, 27208), (71, 27217), (72, 27220), (75, 27235), (84, 27298), (88, 27316), (89, 27322), (91, 27334), (94, 27358), (96, 27361), (97, 27367),

Gene: IronMan\_37 Start: 28412, Stop: 28852, Start Num: 50

Candidate Starts for IronMan\_37:

(Start: 50 @28412 has 59 MA's), (66, 28520), (67, 28532), (69, 28553), (78, 28595), (79, 28604), (87, 28658), (91, 28679), (97, 28712),

Gene: Isca\_34 Start: 26477, Stop: 26902, Start Num: 49

Candidate Starts for Isca\_34:

(Start: 49 @26477 has 279 MA's), (Start: 50 @26480 has 59 MA's), (67, 26600), (69, 26615), (87, 26720), (89, 26729), (91, 26741), (97, 26774), (107, 26828), (108, 26831), (116, 26864),

Gene: Iwokeuplikedis\_35 Start: 26592, Stop: 27026, Start Num: 50

Candidate Starts for Iwokeuplikedis\_35:

(20, 26475), (Start: 22 @26481 has 9 MA's), (Start: 50 @26592 has 59 MA's), (69, 26727), (72, 26739), (78, 26769), (79, 26778), (80, 26784), (86, 26823), (87, 26832), (91, 26853), (97, 26886), (98, 26889),

Gene: JF2\_34 Start: 26228, Stop: 26653, Start Num: 49

Candidate Starts for JF2\_34:

(Start: 49 @26228 has 279 MA's), (Start: 50 @26231 has 59 MA's), (67, 26351), (69, 26366), (87, 26471), (89, 26480), (91, 26492), (97, 26525), (107, 26579), (108, 26582), (116, 26615),

Gene: JF4\_34 Start: 26228, Stop: 26653, Start Num: 49

Candidate Starts for JF4\_34:

(Start: 49 @26228 has 279 MA's), (Start: 50 @26231 has 59 MA's), (67, 26351), (69, 26366), (87, 26471), (89, 26480), (91, 26492), (97, 26525), (107, 26579), (108, 26582), (116, 26615),

Gene: JHC117\_37 Start: 27198, Stop: 27629, Start Num: 49

Candidate Starts for JHC117\_37:

(20, 27084), (Start: 22 @27090 has 9 MA's), (Start: 49 @27198 has 279 MA's), (Start: 61 @27267 has 6 MA's), (69, 27336), (70, 27339), (79, 27387), (89, 27450), (91, 27462), (97, 27495), (98, 27498), (107, 27549), (108, 27552), (116, 27591),

Gene: Jaan\_38 Start: 28850, Stop: 29293, Start Num: 49

Candidate Starts for Jaan\_38:

(Start: 49 @28850 has 279 MA's), (Start: 50 @28853 has 59 MA's), (52, 28859), (69, 28994), (78, 29036), (79, 29045), (84, 29084), (86, 29090), (87, 29099), (91, 29120), (97, 29153), (121, 29261),

Gene: Jabiru\_32 Start: 25700, Stop: 26119, Start Num: 46

Candidate Starts for Jabiru\_32:

(Start: 46 @25700 has 41 MA's), (63, 25769), (64, 25784), (67, 25811), (69, 25832), (85, 25925), (88, 25940), (91, 25958), (96, 25985), (97, 25991), (98, 25994), (106, 26039), (108, 26048),

Gene: Jace\_93 Start: 53019, Stop: 52444, Start Num: 46

Candidate Starts for Jace\_93:

(14, 53154), (Start: 46 @53019 has 41 MA's), (63, 52926), (66, 52896), (69, 52863), (73, 52848), (81, 52806), (99, 52686), (100, 52683), (102, 52671), (105, 52659), (107, 52644), (128, 52551), (129, 52536), (130, 52461),

Gene: Jaykayelowell\_34 Start: 26712, Stop: 27131, Start Num: 51

Candidate Starts for Jaykayelowell\_34:

(34, 26625), (Start: 42 @26685 has 8 MA's), (Start: 49 @26706 has 279 MA's), (Start: 51 @26712 has 2 MA's), (Start: 56 @26730 has 1 MA's), (Start: 61 @26763 has 6 MA's), (63, 26775), (67, 26817), (69, 26832), (83, 26916), (88, 26937), (89, 26943), (91, 26955), (97, 26988), (98, 26991), (101, 27012),

Gene: JenCasNa\_37 Start: 27268, Stop: 27630, Start Num: 61

Candidate Starts for JenCasNa\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: JeppNRM\_37 Start: 27021, Stop: 27458, Start Num: 49

Candidate Starts for JeppNRM\_37:

(25, 26919), (Start: 49 @27021 has 279 MA's), (69, 27165), (78, 27207), (89, 27279), (91, 27291), (97, 27324), (98, 27327), (107, 27378), (108, 27381),

Gene: Jerm\_36 Start: 27133, Stop: 27573, Start Num: 50

Candidate Starts for Jerm\_36:

(Start: 50 @27133 has 59 MA's), (Start: 55 @27160 has 4 MA's), (66, 27241), (67, 27253), (69, 27274), (78, 27316), (79, 27325), (87, 27379), (88, 27382), (89, 27388), (91, 27400), (96, 27427), (97, 27433), (122, 27544),

Gene: Jester\_30 Start: 24122, Stop: 24598, Start Num: 49

Candidate Starts for Jester\_30:

(Start: 49 @24122 has 279 MA's), (69, 24275), (70, 24278), (73, 24290), (75, 24302), (82, 24365), (84, 24371), (91, 24407), (104, 24482), (107, 24503), (108, 24506),

Gene: JetBlade\_34 Start: 26707, Stop: 27132, Start Num: 49

Candidate Starts for JetBlade\_34:

(34, 26626), (Start: 42 @26686 has 8 MA's), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: Jobu08\_36 Start: 27029, Stop: 27460, Start Num: 49

Candidate Starts for Jobu08\_36:

(Start: 49 @27029 has 279 MA's), (69, 27167), (70, 27170), (79, 27218), (89, 27281), (91, 27293), (97, 27326), (98, 27329), (107, 27380), (108, 27383), (116, 27422), (125, 27443),

Gene: JoongJeon\_34 Start: 26689, Stop: 27135, Start Num: 42

Candidate Starts for JoongJeon\_34:

(9, 26563), (19, 26587), (34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: JoshKayV\_36 Start: 27108, Stop: 27542, Start Num: 50

Candidate Starts for JoshKayV\_36:

(29, 27012), (Start: 50 @27108 has 59 MA's), (67, 27228), (69, 27243), (78, 27285), (87, 27348), (89, 27357), (91, 27369), (97, 27402),

Gene: Journey13\_32 Start: 25973, Stop: 26401, Start Num: 49

Candidate Starts for Journey13\_32:

(Start: 43 @25958 has 3 MA's), (Start: 49 @25973 has 279 MA's), (67, 26096), (69, 26111), (79, 26162), (87, 26216), (89, 26225), (91, 26237), (97, 26270), (98, 26273), (107, 26324), (108, 26327),

Gene: Jovo\_31 Start: 26134, Stop: 26553, Start Num: 46

Candidate Starts for Jovo\_31:

(Start: 46 @26134 has 41 MA's), (Start: 61 @26191 has 6 MA's), (69, 26266), (88, 26374), (91, 26392), (96, 26419), (97, 26425), (98, 26428), (106, 26473), (108, 26482),

Gene: Jsquared\_35 Start: 26083, Stop: 26511, Start Num: 49

Candidate Starts for Jsquared\_35:

(Start: 49 @26083 has 279 MA's), (Start: 61 @26152 has 6 MA's), (75, 26248), (77, 26254), (79, 26272), (83, 26308), (84, 26311), (85, 26314), (91, 26347), (97, 26380), (98, 26383), (107, 26434), (108, 26437), (109, 26440), (110, 26443),

Gene: KADY\_38 Start: 27402, Stop: 27833, Start Num: 49

Candidate Starts for KADY\_38:

(33, 27318), (Start: 45 @27396 has 2 MA's), (Start: 49 @27402 has 279 MA's), (Start: 56 @27426 has 1 MA's), (67, 27513), (69, 27534), (70, 27537), (83, 27621), (85, 27627), (88, 27642), (89, 27648), (95, 27690), (97, 27699), (98, 27702), (107, 27753), (108, 27756), (116, 27795),

Gene: KFPoly\_34 Start: 26707, Stop: 27132, Start Num: 49

Candidate Starts for KFPoly\_34:

(34, 26626), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: Kalb97\_37 Start: 27021, Stop: 27458, Start Num: 49

Candidate Starts for Kalb97\_37:

(25, 26919), (Start: 49 @27021 has 279 MA's), (69, 27165), (78, 27207), (89, 27279), (91, 27291), (97, 27324), (98, 27327), (107, 27378), (108, 27381),

Gene: Kalnoky\_37 Start: 27022, Stop: 27459, Start Num: 49

Candidate Starts for Kalnoky\_37:

(25, 26920), (Start: 49 @27022 has 279 MA's), (69, 27166), (78, 27208), (89, 27280), (91, 27292), (97, 27325), (98, 27328), (107, 27379), (108, 27382),

Gene: Kalpine\_36 Start: 27903, Stop: 28334, Start Num: 49

Candidate Starts for Kalpine\_36:

(Start: 49 @27903 has 279 MA's), (67, 28026), (69, 28047), (75, 28074), (77, 28080), (87, 28146), (89, 28155), (91, 28167), (96, 28194), (97, 28200), (100, 28215), (107, 28254), (116, 28296), (124, 28311),

Gene: Kampy\_34 Start: 26631, Stop: 27077, Start Num: 49

Candidate Starts for Kampy\_34:

(Start: 49 @26631 has 279 MA's), (Start: 50 @26634 has 59 MA's), (52, 26640), (Start: 55 @26661 has 4 MA's), (64, 26727), (69, 26775), (70, 26778), (72, 26787), (78, 26817), (87, 26880), (89, 26889), (97, 26934),

Gene: Katalie136\_34 Start: 26764, Stop: 27189, Start Num: 49

Candidate Starts for Katalie136\_34:

(Start: 49 @26764 has 279 MA's), (Start: 61 @26821 has 6 MA's), (63, 26833), (67, 26875), (69, 26890), (70, 26893), (71, 26899), (83, 26974), (88, 26995), (91, 27013), (97, 27046), (98, 27049), (101, 27070),

Gene: Kerberos\_38 Start: 26865, Stop: 27302, Start Num: 49

Candidate Starts for Kerberos\_38:

(Start: 49 @26865 has 279 MA's), (67, 26988), (69, 27003), (78, 27045), (79, 27054), (87, 27108), (88, 27111), (91, 27129), (97, 27162), (98, 27165),

Gene: Kimona\_31 Start: 24788, Stop: 25219, Start Num: 49

Candidate Starts for Kimona\_31:

(27, 24689), (Start: 49 @24788 has 279 MA's), (69, 24932), (71, 24941), (72, 24944), (78, 24974), (91, 25058), (97, 25091), (98, 25094), (108, 25148), (116, 25181), (124, 25196),

Gene: KingCyrus\_37 Start: 28510, Stop: 28950, Start Num: 50

Candidate Starts for KingCyrus\_37:

(Start: 50 @28510 has 59 MA's), (Start: 55 @28537 has 4 MA's), (66, 28618), (67, 28630), (69, 28651), (78, 28693), (79, 28702), (87, 28756), (88, 28759), (89, 28765), (91, 28777), (96, 28804), (97, 28810),

Gene: Kinmap\_36 Start: 26800, Stop: 27219, Start Num: 46

Candidate Starts for Kinmap\_36:

(Start: 46 @26800 has 41 MA's), (67, 26911), (69, 26932), (72, 26944), (88, 27040), (91, 27058), (97, 27091), (100, 27106), (107, 27145),

Gene: Koan\_33 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Koan\_33:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Koduck\_34 Start: 25817, Stop: 26260, Start Num: 49

Candidate Starts for Koduck\_34:

(Start: 49 @25817 has 279 MA's), (67, 25940), (69, 25955), (70, 25958), (71, 25964), (72, 25967), (79, 26006), (89, 26069), (91, 26081), (97, 26114), (98, 26117), (107, 26168), (108, 26171),

Gene: Koreni\_33 Start: 26409, Stop: 26837, Start Num: 49

Candidate Starts for Koreni\_33:

(Start: 40 @26367 has 1 MA's), (Start: 49 @26409 has 279 MA's), (Start: 54 @26427 has 2 MA's), (Start: 58 @26451 has 2 MA's), (67, 26520), (69, 26535), (71, 26544), (72, 26547), (75, 26562), (84, 26625), (88, 26643), (89, 26649), (91, 26661), (94, 26685), (96, 26688), (97, 26694),

Gene: Kratak\_34 Start: 26808, Stop: 27194, Start Num: 58

Candidate Starts for Kratak\_34:

(Start: 49 @26766 has 279 MA's), (Start: 54 @26784 has 2 MA's), (Start: 58 @26808 has 2 MA's), (67, 26877), (69, 26892), (72, 26904), (84, 26982), (87, 26997), (89, 27006), (91, 27018), (94, 27042), (96, 27045), (97, 27051),

Gene: Kremtemulon\_34 Start: 26816, Stop: 27244, Start Num: 49

Candidate Starts for Kremtemulon\_34:

(Start: 40 @26774 has 1 MA's), (Start: 49 @26816 has 279 MA's), (Start: 54 @26834 has 2 MA's), (Start: 58 @26858 has 2 MA's), (67, 26927), (69, 26942), (71, 26951), (72, 26954), (75, 26969), (84,

27032), (88, 27050), (89, 27056), (91, 27068), (94, 27092), (96, 27095), (97, 27101),

Gene: Krishelle\_30 Start: 24470, Stop: 24946, Start Num: 49

Candidate Starts for Krishelle\_30:

(Start: 49 @24470 has 279 MA's), (69, 24623), (70, 24626), (73, 24638), (75, 24650), (84, 24719), (91, 24755), (104, 24830), (106, 24845), (107, 24851), (108, 24854),

Gene: Kristoff\_36 Start: 27117, Stop: 27542, Start Num: 50

Candidate Starts for Kristoff\_36:

(35, 27045), (Start: 50 @27117 has 59 MA's), (67, 27222), (69, 27237), (72, 27249), (88, 27342), (89, 27348), (91, 27360), (97, 27393), (106, 27441),

Gene: Kyee\_34 Start: 26708, Stop: 27133, Start Num: 49

Candidate Starts for Kyee\_34:

(34, 26627), (Start: 42 @26687 has 8 MA's), (Start: 49 @26708 has 279 MA's), (Start: 51 @26714 has 2 MA's), (Start: 56 @26732 has 1 MA's), (Start: 61 @26765 has 6 MA's), (63, 26777), (67, 26819), (69, 26834), (83, 26918), (88, 26939), (89, 26945), (91, 26957), (97, 26990), (98, 26993), (101, 27014),

Gene: L5\_34.1 Start: 25777, Stop: 26220, Start Num: 49

Candidate Starts for L5\_34.1:

(Start: 49 @25777 has 279 MA's), (67, 25900), (69, 25915), (70, 25918), (71, 25924), (72, 25927), (79, 25966), (89, 26029), (91, 26041), (97, 26074), (98, 26077), (107, 26128), (108, 26131),

Gene: LBerry\_37 Start: 27200, Stop: 27631, Start Num: 49

Candidate Starts for LBerry\_37:

(20, 27086), (Start: 22 @27092 has 9 MA's), (Start: 49 @27200 has 279 MA's), (Start: 61 @27269 has 6 MA's), (69, 27338), (70, 27341), (79, 27389), (89, 27452), (91, 27464), (97, 27497), (98, 27500), (107, 27551), (108, 27554), (116, 27593),

Gene: LHTSCC\_35 Start: 26997, Stop: 27413, Start Num: 55

Candidate Starts for LHTSCC\_35:

(Start: 49 @26967 has 279 MA's), (Start: 50 @26970 has 59 MA's), (52, 26976), (Start: 55 @26997 has 4 MA's), (64, 27063), (69, 27111), (70, 27114), (72, 27123), (78, 27153), (87, 27216), (89, 27225), (97, 27270), (122, 27381),

Gene: Landor\_36 Start: 28397, Stop: 28828, Start Num: 49

Candidate Starts for Landor\_36:

(Start: 49 @28397 has 279 MA's), (Start: 58 @28439 has 2 MA's), (67, 28508), (69, 28529), (78, 28571), (79, 28580), (87, 28634), (91, 28655), (97, 28688),

Gene: LappelDuVide\_34 Start: 26709, Stop: 27134, Start Num: 49

Candidate Starts for LappelDuVide\_34:

(34, 26628), (Start: 42 @26688 has 8 MA's), (Start: 49 @26709 has 279 MA's), (Start: 51 @26715 has 2 MA's), (Start: 56 @26733 has 1 MA's), (Start: 61 @26766 has 6 MA's), (63, 26778), (67, 26820), (69, 26835), (83, 26919), (88, 26940), (89, 26946), (91, 26958), (97, 26991), (98, 26994), (101, 27015),

Gene: Larenn\_36 Start: 27199, Stop: 27639, Start Num: 50

Candidate Starts for Larenn\_36:

(Start: 50 @27199 has 59 MA's), (Start: 55 @27226 has 4 MA's), (66, 27307), (67, 27319), (69, 27340), (78, 27382), (87, 27445), (88, 27448), (89, 27454), (91, 27466), (96, 27493), (97, 27499),

Gene: LarryKay\_37 Start: 27404, Stop: 27835, Start Num: 49

Candidate Starts for LarryKay\_37:



(33, 27320), (Start: 45 @27398 has 2 MA's), (Start: 49 @27404 has 279 MA's), (Start: 56 @27428 has 1 MA's), (67, 27515), (69, 27536), (70, 27539), (75, 27563), (83, 27623), (85, 27629), (88, 27644), (89, 27650), (95, 27692), (97, 27701), (98, 27704), (107, 27755), (108, 27758), (116, 27797),

Gene: Lemur\_34 Start: 26707, Stop: 27132, Start Num: 49

Candidate Starts for Lemur\_34:

(34, 26626), (Start: 42 @26686 has 8 MA's), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: LeoAvram\_34 Start: 26659, Stop: 27075, Start Num: 55

Candidate Starts for LeoAvram\_34:

(Start: 49 @26629 has 279 MA's), (Start: 50 @26632 has 59 MA's), (52, 26638), (Start: 55 @26659 has 4 MA's), (64, 26725), (69, 26773), (70, 26776), (72, 26785), (78, 26815), (87, 26878), (89, 26887), (97, 26932),

Gene: Leogania\_36 Start: 28417, Stop: 28854, Start Num: 49

Candidate Starts for Leogania\_36:

(20, 28306), (31, 28330), (Start: 49 @28417 has 279 MA's), (69, 28555), (78, 28597), (79, 28606), (87, 28660), (89, 28669), (91, 28681), (97, 28714), (98, 28717),

Gene: Lev2\_31 Start: 25766, Stop: 26185, Start Num: 46

Candidate Starts for Lev2\_31:

(Start: 46 @25766 has 41 MA's), (Start: 61 @25823 has 6 MA's), (69, 25898), (88, 26006), (91, 26024), (96, 26051), (97, 26057), (98, 26060), (106, 26105), (108, 26114),

Gene: Leviathan\_36 Start: 27189, Stop: 27629, Start Num: 50

Candidate Starts for Leviathan\_36:

(Start: 50 @27189 has 59 MA's), (Start: 55 @27216 has 4 MA's), (66, 27297), (67, 27309), (69, 27330), (78, 27372), (79, 27381), (87, 27435), (88, 27438), (89, 27444), (91, 27456), (96, 27483), (97, 27489),

Gene: LilTurb\_35 Start: 27022, Stop: 27462, Start Num: 50

Candidate Starts for LilTurb\_35:

(Start: 50 @27022 has 59 MA's), (Start: 55 @27049 has 4 MA's), (66, 27130), (67, 27142), (69, 27163), (78, 27205), (79, 27214), (87, 27268), (88, 27271), (89, 27277), (91, 27289), (96, 27316), (97, 27322),

Gene: Lilith\_37 Start: 27262, Stop: 27624, Start Num: 61

Candidate Starts for Lilith\_37:

(20, 27079), (Start: 22 @27085 has 9 MA's), (Start: 49 @27193 has 279 MA's), (Start: 61 @27262 has 6 MA's), (69, 27331), (70, 27334), (79, 27382), (89, 27445), (91, 27457), (97, 27490), (98, 27493), (107, 27544), (108, 27547), (116, 27586),

Gene: LionsBait\_36 Start: 28124, Stop: 28561, Start Num: 49

Candidate Starts for LionsBait\_36:

(20, 28010), (Start: 22 @28016 has 9 MA's), (Start: 49 @28124 has 279 MA's), (69, 28262), (71, 28271), (78, 28304), (79, 28313), (89, 28376), (91, 28388), (97, 28421), (98, 28424),

Gene: LittleB\_34 Start: 26711, Stop: 27136, Start Num: 49

Candidate Starts for LittleB\_34:

(34, 26630), (Start: 49 @26711 has 279 MA's), (Start: 51 @26717 has 2 MA's), (Start: 56 @26735 has 1 MA's), (Start: 61 @26768 has 6 MA's), (63, 26780), (67, 26822), (69, 26837), (83, 26921), (88, 26942), (89, 26948), (91, 26960), (97, 26993), (98, 26996), (101, 27017),

Gene: LittleCherry\_31 Start: 25945, Stop: 26373, Start Num: 46

Candidate Starts for LittleCherry\_31:

(Start: 46 @25945 has 41 MA's), (Start: 61 @26002 has 6 MA's), (69, 26077), (79, 26128), (88, 26185), (96, 26230), (97, 26236), (98, 26239), (106, 26284), (108, 26293), (114, 26329),

Gene: LittleGuy\_34 Start: 26711, Stop: 27139, Start Num: 49

Candidate Starts for LittleGuy\_34:

(Start: 40 @26669 has 1 MA's), (Start: 49 @26711 has 279 MA's), (Start: 54 @26729 has 2 MA's), (Start: 58 @26753 has 2 MA's), (67, 26822), (69, 26837), (72, 26849), (75, 26864), (84, 26927), (88, 26945), (89, 26951), (91, 26963), (94, 26987), (96, 26990), (97, 26996),

Gene: LochMonster\_34 Start: 26764, Stop: 27174, Start Num: 54

Candidate Starts for LochMonster\_34:

(Start: 40 @26704 has 1 MA's), (Start: 49 @26746 has 279 MA's), (Start: 54 @26764 has 2 MA's), (Start: 58 @26788 has 2 MA's), (67, 26857), (69, 26872), (71, 26881), (72, 26884), (75, 26899), (84, 26962), (88, 26980), (89, 26986), (91, 26998), (94, 27022), (96, 27025), (97, 27031),

Gene: Lorenzo\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Lorenzo\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Louie6\_37 Start: 27403, Stop: 27834, Start Num: 49

Candidate Starts for Louie6\_37:

(33, 27319), (Start: 45 @27397 has 2 MA's), (Start: 49 @27403 has 279 MA's), (Start: 56 @27427 has 1 MA's), (67, 27514), (69, 27535), (70, 27538), (75, 27562), (83, 27622), (85, 27628), (88, 27643), (89, 27649), (95, 27691), (97, 27700), (98, 27703), (107, 27754), (108, 27757), (116, 27796),

Gene: Iowa\_37 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for Iowa\_37:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: LugYA\_39 Start: 27200, Stop: 27631, Start Num: 49

Candidate Starts for LugYA\_39:

(20, 27086), (Start: 22 @27092 has 9 MA's), (Start: 49 @27200 has 279 MA's), (Start: 61 @27269 has 6 MA's), (69, 27338), (70, 27341), (79, 27389), (89, 27452), (91, 27464), (97, 27497), (98, 27500), (107, 27551), (108, 27554), (116, 27593),

Gene: Lunsford\_35 Start: 26707, Stop: 27132, Start Num: 49

Candidate Starts for Lunsford\_35:

(34, 26626), (Start: 42 @26686 has 8 MA's), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: MA5\_34 Start: 26354, Stop: 26785, Start Num: 49

Candidate Starts for MA5\_34:

(20, 26240), (Start: 22 @26246 has 9 MA's), (Start: 49 @26354 has 279 MA's), (Start: 50 @26357 has 59 MA's), (68, 26480), (69, 26498), (72, 26510), (78, 26540), (79, 26549), (87, 26603), (88, 26606), (89, 26612), (91, 26624), (97, 26657), (98, 26660), (108, 26714), (116, 26747),

Gene: MK4\_34 Start: 26462, Stop: 26887, Start Num: 49

Candidate Starts for MK4\_34:

(Start: 49 @26462 has 279 MA's), (Start: 50 @26465 has 59 MA's), (67, 26585), (69, 26600), (87, 26705), (89, 26714), (91, 26726), (97, 26759), (107, 26813), (108, 26816), (116, 26849),

Gene: MadMarie\_37 Start: 27202, Stop: 27633, Start Num: 49

Candidate Starts for MadMarie\_37:

(20, 27088), (Start: 22 @27094 has 9 MA's), (Start: 49 @27202 has 279 MA's), (69, 27340), (70, 27343), (79, 27391), (89, 27454), (91, 27466), (97, 27499), (98, 27502), (107, 27553), (108, 27556), (116, 27595),

Gene: Mainiac\_37 Start: 27193, Stop: 27624, Start Num: 49

Candidate Starts for Mainiac\_37:

(20, 27079), (Start: 22 @27085 has 9 MA's), (Start: 49 @27193 has 279 MA's), (Start: 61 @27262 has 6 MA's), (69, 27331), (70, 27334), (79, 27382), (89, 27445), (91, 27457), (97, 27490), (98, 27493), (107, 27544), (108, 27547), (116, 27586),

Gene: MajorMajor\_35 Start: 26009, Stop: 26440, Start Num: 49

Candidate Starts for MajorMajor\_35:

(Start: 49 @26009 has 279 MA's), (Start: 61 @26078 has 6 MA's), (72, 26159), (75, 26174), (83, 26234), (84, 26237), (90, 26264), (91, 26273), (97, 26306), (98, 26309), (107, 26360), (108, 26363), (110, 26369), (111, 26384),

Gene: Malec\_37 Start: 27760, Stop: 28200, Start Num: 50

Candidate Starts for Malec\_37:

(36, 27694), (Start: 50 @27760 has 59 MA's), (66, 27868), (67, 27880), (69, 27901), (78, 27943), (83, 27988), (87, 28006), (89, 28015), (91, 28027), (96, 28054), (97, 28060),

Gene: Malinsilva\_39 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for Malinsilva\_39:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: Manu\_37 Start: 27022, Stop: 27459, Start Num: 49

Candidate Starts for Manu\_37:

(25, 26920), (Start: 49 @27022 has 279 MA's), (69, 27166), (78, 27208), (89, 27280), (91, 27292), (97, 27325), (98, 27328), (107, 27379), (108, 27382),

Gene: MarQuardt\_37 Start: 27093, Stop: 27632, Start Num: 22

Candidate Starts for MarQuardt\_37:

(20, 27087), (Start: 22 @27093 has 9 MA's), (Start: 49 @27201 has 279 MA's), (Start: 61 @27270 has 6 MA's), (69, 27339), (70, 27342), (79, 27390), (89, 27453), (91, 27465), (97, 27498), (98, 27501), (107, 27552), (108, 27555), (116, 27594),

Gene: Marie\_37 Start: 27091, Stop: 27630, Start Num: 22

Candidate Starts for Marie\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: Marius\_37 Start: 27022, Stop: 27459, Start Num: 49

Candidate Starts for Marius\_37:

(25, 26920), (Start: 49 @27022 has 279 MA's), (69, 27166), (78, 27208), (89, 27280), (91, 27292), (97, 27325), (98, 27328), (107, 27379), (108, 27382),

Gene: MarysWell\_30 Start: 25993, Stop: 26421, Start Num: 46

Candidate Starts for MarysWell\_30:

(Start: 46 @25993 has 41 MA's), (69, 26125), (79, 26176), (88, 26233), (91, 26251), (97, 26284), (98, 26287), (106, 26332), (108, 26341), (114, 26377),

Gene: Maverick\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Maverick\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Maxo\_34 Start: 26631, Stop: 27077, Start Num: 49

Candidate Starts for Maxo\_34:

(Start: 49 @26631 has 279 MA's), (Start: 50 @26634 has 59 MA's), (52, 26640), (Start: 55 @26661 has 4 MA's), (64, 26727), (69, 26775), (70, 26778), (72, 26787), (78, 26817), (87, 26880), (89, 26889), (97, 26934),

Gene: Mayonnaise\_35 Start: 26716, Stop: 27135, Start Num: 51

Candidate Starts for Mayonnaise\_35:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Mazhar510\_34 Start: 26711, Stop: 27136, Start Num: 49

Candidate Starts for Mazhar510\_34:

(34, 26630), (Start: 42 @26690 has 8 MA's), (Start: 49 @26711 has 279 MA's), (Start: 51 @26717 has 2 MA's), (Start: 56 @26735 has 1 MA's), (Start: 61 @26768 has 6 MA's), (63, 26780), (67, 26822), (69, 26837), (83, 26921), (88, 26942), (89, 26948), (91, 26960), (97, 26993), (98, 26996), (101, 27017),

Gene: Medusa\_34 Start: 26634, Stop: 27077, Start Num: 50

Candidate Starts for Medusa\_34:

(Start: 49 @26631 has 279 MA's), (Start: 50 @26634 has 59 MA's), (52, 26640), (Start: 55 @26661 has 4 MA's), (64, 26727), (69, 26775), (70, 26778), (72, 26787), (78, 26817), (87, 26880), (89, 26889), (97, 26934),

Gene: MeeZee\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for MeeZee\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Melvin\_35 Start: 26633, Stop: 27076, Start Num: 50

Candidate Starts for Melvin\_35:

(Start: 49 @26630 has 279 MA's), (Start: 50 @26633 has 59 MA's), (52, 26639), (Start: 55 @26660 has 4 MA's), (64, 26726), (69, 26774), (70, 26777), (72, 26786), (78, 26816), (87, 26879), (89, 26888), (97, 26933),

Gene: Methuselah\_36 Start: 27398, Stop: 27829, Start Num: 49

Candidate Starts for Methuselah\_36:

(33, 27314), (Start: 45 @27392 has 2 MA's), (Start: 49 @27398 has 279 MA's), (Start: 56 @27422 has 1 MA's), (67, 27509), (69, 27530), (70, 27533), (75, 27557), (83, 27617), (85, 27623), (88, 27638), (89, 27644), (95, 27686), (97, 27695), (98, 27698), (107, 27749), (108, 27752), (116, 27791),

Gene: Micasa\_31 Start: 25919, Stop: 26338, Start Num: 46

Candidate Starts for Micasa\_31:

(Start: 46 @25919 has 41 MA's), (Start: 61 @25976 has 6 MA's), (69, 26051), (88, 26159), (91, 26177), (96, 26204), (97, 26210), (98, 26213), (106, 26258), (108, 26267),

Gene: Microwolf\_37 Start: 27270, Stop: 27632, Start Num: 61

Candidate Starts for Microwolf\_37:

(20, 27087), (Start: 22 @27093 has 9 MA's), (Start: 49 @27201 has 279 MA's), (Start: 61 @27270 has 6 MA's), (69, 27339), (70, 27342), (79, 27390), (89, 27453), (91, 27465), (97, 27498), (98, 27501), (107, 27552), (108, 27555), (116, 27594),

Gene: MiculUcigas\_35 Start: 26892, Stop: 27329, Start Num: 49

Candidate Starts for MiculUcigas\_35:

(20, 26781), (31, 26805), (Start: 49 @26892 has 279 MA's), (Start: 61 @26961 has 6 MA's), (67, 27015), (69, 27030), (78, 27072), (79, 27081), (87, 27135), (89, 27144), (97, 27189), (98, 27192),

Gene: Midas2\_31 Start: 26050, Stop: 26412, Start Num: 61

Candidate Starts for Midas2\_31:

(Start: 46 @25993 has 41 MA's), (Start: 61 @26050 has 6 MA's), (69, 26125), (88, 26233), (91, 26251), (96, 26278), (97, 26284), (98, 26287), (106, 26332), (108, 26341),

Gene: Milcery\_31 Start: 25949, Stop: 26377, Start Num: 46

Candidate Starts for Milcery\_31:

(Start: 46 @25949 has 41 MA's), (Start: 61 @26006 has 6 MA's), (69, 26081), (79, 26132), (88, 26189), (91, 26207), (96, 26234), (97, 26240), (98, 26243), (106, 26288), (108, 26297), (114, 26333),

Gene: Millski\_33 Start: 26693, Stop: 27139, Start Num: 42

Candidate Starts for Millski\_33:

(34, 26633), (Start: 42 @26693 has 8 MA's), (Start: 49 @26714 has 279 MA's), (Start: 51 @26720 has 2 MA's), (Start: 56 @26738 has 1 MA's), (Start: 61 @26771 has 6 MA's), (63, 26783), (67, 26825), (69, 26840), (83, 26924), (88, 26945), (89, 26951), (91, 26963), (97, 26996), (98, 26999), (101, 27020),

Gene: Miramae\_34 Start: 27036, Stop: 27464, Start Num: 49

Candidate Starts for Miramae\_34:

(Start: 49 @27036 has 279 MA's), (Start: 54 @27054 has 2 MA's), (63, 27105), (67, 27147), (69, 27162), (71, 27171), (72, 27174), (84, 27252), (88, 27270), (89, 27276), (91, 27288), (97, 27321), (104, 27354), (122, 27432),

Gene: Misomonster\_39 Start: 27401, Stop: 27832, Start Num: 49

Candidate Starts for Misomonster\_39:

(33, 27317), (Start: 45 @27395 has 2 MA's), (Start: 49 @27401 has 279 MA's), (Start: 56 @27425 has 1 MA's), (67, 27512), (69, 27533), (70, 27536), (83, 27620), (85, 27626), (88, 27641), (89, 27647), (95, 27689), (97, 27698), (98, 27701), (107, 27752), (108, 27755), (116, 27794),

Gene: ModicumRichard\_121 Start: 66224, Stop: 65715, Start Num: 50

Candidate Starts for ModicumRichard\_121:

(1, 66527), (11, 66380), (Start: 50 @66224 has 59 MA's), (Start: 56 @66200 has 1 MA's), (67, 66113), (78, 66050), (79, 66041), (88, 65987), (89, 65981),

Gene: MoneyMay\_37 Start: 27091, Stop: 27630, Start Num: 22

Candidate Starts for MoneyMay\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: Morgana\_128 Start: 68394, Stop: 67885, Start Num: 50

Candidate Starts for Morgana\_128:

(Start: 50 @68394 has 59 MA's), (Start: 56 @68370 has 1 MA's), (67, 68283), (78, 68220), (79, 68211), (80, 68205), (88, 68157), (89, 68151),

Gene: Morpher26\_34 Start: 26764, Stop: 27189, Start Num: 49

Candidate Starts for Morpher26\_34:

(Start: 49 @26764 has 279 MA's), (Start: 61 @26821 has 6 MA's), (63, 26833), (67, 26875), (69, 26890), (70, 26893), (71, 26899), (83, 26974), (88, 26995), (91, 27013), (97, 27046), (98, 27049), (101, 27070),

Gene: Morrow\_34 Start: 26638, Stop: 27081, Start Num: 50

Candidate Starts for Morrow\_34:

(Start: 49 @26635 has 279 MA's), (Start: 50 @26638 has 59 MA's), (52, 26644), (Start: 55 @26665 has 4 MA's), (64, 26731), (69, 26779), (70, 26782), (72, 26791), (78, 26821), (87, 26884), (89, 26893), (97, 26938),

Gene: MuchMore\_39 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for MuchMore\_39:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: Mundrea\_34 Start: 26746, Stop: 27174, Start Num: 49

Candidate Starts for Mundrea\_34:

(Start: 49 @26746 has 279 MA's), (Start: 54 @26764 has 2 MA's), (Start: 58 @26788 has 2 MA's), (67, 26857), (69, 26872), (72, 26884), (84, 26962), (87, 26977), (89, 26986), (96, 27025), (97, 27031), (122, 27142),

Gene: MyraDee\_31 Start: 24244, Stop: 24663, Start Num: 47

Candidate Starts for MyraDee\_31:

(39, 24199), (Start: 47 @24244 has 10 MA's), (Start: 61 @24301 has 6 MA's), (69, 24376), (72, 24388), (77, 24409), (91, 24502), (97, 24529), (98, 24532), (106, 24577), (107, 24583), (108, 24586),

Gene: NaSiaTalie\_35 Start: 26890, Stop: 27327, Start Num: 49

Candidate Starts for NaSiaTalie\_35:

(20, 26779), (31, 26803), (Start: 49 @26890 has 279 MA's), (Start: 61 @26959 has 6 MA's), (67, 27013), (69, 27028), (78, 27070), (79, 27079), (87, 27133), (89, 27142), (97, 27187), (98, 27190),

Gene: Naca\_32 Start: 26187, Stop: 26615, Start Num: 46

Candidate Starts for Naca\_32:

(Start: 46 @26187 has 41 MA's), (63, 26256), (64, 26271), (67, 26298), (69, 26319), (85, 26412), (88, 26427), (91, 26445), (96, 26472), (97, 26478), (98, 26481), (106, 26526), (108, 26535), (114, 26571),

Gene: Naiad\_30 Start: 24199, Stop: 24675, Start Num: 49

Candidate Starts for Naiad\_30:

(Start: 49 @24199 has 279 MA's), (53, 24214), (69, 24352), (70, 24355), (73, 24367), (75, 24379), (82, 24442), (84, 24448), (91, 24484), (104, 24559), (107, 24580), (108, 24583), (113, 24616),

Gene: Naji\_38 Start: 26865, Stop: 27302, Start Num: 49

Candidate Starts for Naji\_38:

(Start: 49 @26865 has 279 MA's), (67, 26988), (69, 27003), (78, 27045), (79, 27054), (88, 27111), (91, 27129), (97, 27162), (98, 27165), (101, 27186),

Gene: Nancinator\_30 Start: 24187, Stop: 24663, Start Num: 49

Candidate Starts for Nancinator\_30:

(Start: 49 @24187 has 279 MA's), (69, 24340), (70, 24343), (73, 24355), (75, 24367), (82, 24430), (84, 24436), (91, 24472), (104, 24547), (107, 24568), (108, 24571), (113, 24604),

Gene: Natosaleda\_30 Start: 24186, Stop: 24662, Start Num: 49

Candidate Starts for Natosaleda\_30:

(Start: 49 @24186 has 279 MA's), (69, 24339), (70, 24342), (73, 24354), (75, 24366), (82, 24429), (84, 24435), (91, 24471), (104, 24546), (107, 24567), (108, 24570), (113, 24603),

Gene: NearlyHeadless\_31 Start: 25179, Stop: 25607, Start Num: 47

Candidate Starts for NearlyHeadless\_31:

(11, 25041), (17, 25056), (25, 25080), (26, 25083), (Start: 47 @25179 has 10 MA's), (67, 25290), (69, 25311), (72, 25323), (75, 25338), (77, 25344), (83, 25398), (84, 25401), (87, 25416), (90, 25428), (91, 25437), (96, 25464), (97, 25470), (98, 25473), (108, 25527),

Gene: Nebs\_34 Start: 26629, Stop: 27075, Start Num: 49

Candidate Starts for Nebs\_34:

(Start: 49 @26629 has 279 MA's), (Start: 50 @26632 has 59 MA's), (52, 26638), (Start: 55 @26659 has 4 MA's), (64, 26725), (69, 26773), (70, 26776), (72, 26785), (78, 26815), (87, 26878), (89, 26887), (97, 26932),

Gene: Nemo27\_34 Start: 26709, Stop: 27134, Start Num: 49

Candidate Starts for Nemo27\_34:

(34, 26628), (Start: 42 @26688 has 8 MA's), (Start: 49 @26709 has 279 MA's), (Start: 51 @26715 has 2 MA's), (Start: 56 @26733 has 1 MA's), (Start: 61 @26766 has 6 MA's), (63, 26778), (67, 26820), (69, 26835), (83, 26919), (88, 26940), (89, 26946), (91, 26958), (97, 26991), (98, 26994), (101, 27015),

Gene: NicoleTera\_38 Start: 28142, Stop: 28579, Start Num: 49

Candidate Starts for NicoleTera\_38:

(3, 27881), (Start: 49 @28142 has 279 MA's), (Start: 61 @28211 has 6 MA's), (67, 28265), (69, 28280), (78, 28322), (79, 28331), (87, 28385), (88, 28388), (89, 28394), (91, 28406), (97, 28439), (98, 28442),

Gene: Noelle\_34 Start: 26808, Stop: 27233, Start Num: 49

Candidate Starts for Noelle\_34:

(34, 26727), (Start: 42 @26787 has 8 MA's), (Start: 49 @26808 has 279 MA's), (63, 26877), (67, 26919), (69, 26934), (83, 27018), (88, 27039), (89, 27045), (91, 27057), (97, 27090), (98, 27093), (104, 27123),

Gene: NorthStar\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for NorthStar\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: NotAPhaseMom\_34 Start: 26714, Stop: 27139, Start Num: 49

Candidate Starts for NotAPhaseMom\_34:

(34, 26633), (Start: 42 @26693 has 8 MA's), (Start: 49 @26714 has 279 MA's), (Start: 51 @26720 has 2 MA's), (Start: 56 @26738 has 1 MA's), (Start: 61 @26771 has 6 MA's), (63, 26783), (67, 26825), (69, 26840), (83, 26924), (88, 26945), (89, 26951), (91, 26963), (97, 26996), (98, 26999), (101, 27020),

Gene: NothingSpecial\_36 Start: 28302, Stop: 28745, Start Num: 49

Candidate Starts for NothingSpecial\_36:

(35, 28236), (Start: 49 @28302 has 279 MA's), (Start: 50 @28305 has 59 MA's), (69, 28446), (78, 28488), (80, 28503), (87, 28551), (88, 28554), (89, 28560), (91, 28572), (97, 28605),

Gene: Nyxis\_34 Start: 26705, Stop: 27133, Start Num: 49

Candidate Starts for Nyxis\_34:

(Start: 40 @26663 has 1 MA's), (Start: 49 @26705 has 279 MA's), (Start: 54 @26723 has 2 MA's), (Start: 58 @26747 has 2 MA's), (67, 26816), (69, 26831), (72, 26843), (75, 26858), (84, 26921), (88, 26939), (89, 26945), (91, 26957), (96, 26984), (97, 26990),

Gene: OKCentral2016\_34 Start: 26449, Stop: 26865, Start Num: 50

Candidate Starts for OKCentral2016\_34:

(35, 26377), (Start: 50 @26449 has 59 MA's), (Start: 58 @26485 has 2 MA's), (67, 26554), (69, 26569), (72, 26581), (83, 26653), (88, 26674), (89, 26680), (91, 26692), (97, 26725), (109, 26785),

Gene: OKaNui\_35 Start: 26763, Stop: 27188, Start Num: 49

Candidate Starts for OKaNui\_35:

(34, 26682), (Start: 42 @26742 has 8 MA's), (Start: 49 @26763 has 279 MA's), (Start: 51 @26769 has 2 MA's), (Start: 56 @26787 has 1 MA's), (Start: 61 @26820 has 6 MA's), (63, 26832), (67, 26874), (69, 26889), (83, 26973), (88, 26994), (89, 27000), (91, 27012), (97, 27045), (98, 27048), (101, 27069),

Gene: ObLaDi\_120 Start: 65626, Stop: 65117, Start Num: 50

Candidate Starts for ObLaDi\_120:

(1, 65929), (11, 65782), (Start: 50 @65626 has 59 MA's), (Start: 56 @65602 has 1 MA's), (67, 65515), (78, 65452), (79, 65443), (88, 65389), (89, 65383),

Gene: Obama12\_35 Start: 26999, Stop: 27415, Start Num: 55

Candidate Starts for Obama12\_35:

(Start: 49 @26969 has 279 MA's), (Start: 50 @26972 has 59 MA's), (52, 26978), (Start: 55 @26999 has 4 MA's), (64, 27065), (69, 27113), (70, 27116), (72, 27125), (78, 27155), (87, 27218), (89, 27227), (97, 27272), (122, 27383),

Gene: Odin\_34 Start: 25599, Stop: 26054, Start Num: 49

Candidate Starts for Odin\_34:

(Start: 49 @25599 has 279 MA's), (Start: 61 @25668 has 6 MA's), (63, 25680), (69, 25737), (70, 25740), (71, 25746), (72, 25749), (79, 25788), (91, 25863), (97, 25896), (98, 25899), (107, 25950), (108, 25953),

Gene: Ohfah\_34 Start: 26629, Stop: 27075, Start Num: 49

Candidate Starts for Ohfah\_34:

(Start: 49 @26629 has 279 MA's), (Start: 50 @26632 has 59 MA's), (52, 26638), (Start: 55 @26659 has 4 MA's), (64, 26725), (69, 26773), (70, 26776), (72, 26785), (78, 26815), (87, 26878), (89, 26887), (97, 26932),

Gene: OlanP\_36 Start: 27203, Stop: 27640, Start Num: 49

Candidate Starts for OlanP\_36:



(25, 27101), (Start: 49 @27203 has 279 MA's), (69, 27347), (78, 27389), (89, 27461), (91, 27473), (97, 27506), (98, 27509), (107, 27560), (108, 27563),

Gene: Ollie\_37 Start: 27070, Stop: 27501, Start Num: 49

Candidate Starts for Ollie\_37:

(20, 26956), (Start: 22 @26962 has 9 MA's), (Start: 49 @27070 has 279 MA's), (69, 27208), (70, 27211), (79, 27259), (89, 27322), (91, 27334), (97, 27367), (98, 27370), (107, 27421), (108, 27424), (116, 27463),

Gene: P28Green\_37 Start: 27202, Stop: 27633, Start Num: 49

Candidate Starts for P28Green\_37:

(20, 27088), (Start: 22 @27094 has 9 MA's), (Start: 49 @27202 has 279 MA's), (Start: 61 @27271 has 6 MA's), (69, 27340), (70, 27343), (79, 27391), (89, 27454), (91, 27466), (97, 27499), (98, 27502), (107, 27553), (108, 27556), (116, 27595),

Gene: PGHhamlin\_39 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for PGHhamlin\_39:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: Palestino\_33 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Palestino\_33:

(9, 26563), (19, 26587), (34, 26629), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Partridge\_30 Start: 24233, Stop: 24709, Start Num: 49

Candidate Starts for Partridge\_30:

(Start: 49 @24233 has 279 MA's), (69, 24386), (70, 24389), (73, 24401), (75, 24413), (82, 24476), (84, 24482), (91, 24518), (104, 24593), (106, 24608), (107, 24614), (108, 24617),

Gene: Pawn\_36 Start: 27023, Stop: 27460, Start Num: 49

Candidate Starts for Pawn\_36:

(25, 26921), (Start: 49 @27023 has 279 MA's), (69, 27167), (78, 27209), (89, 27281), (91, 27293), (97, 27326), (98, 27329), (107, 27380), (108, 27383),

Gene: PeaceMeal1\_33 Start: 25547, Stop: 25981, Start Num: 49

Candidate Starts for PeaceMeal1\_33:

(Start: 49 @25547 has 279 MA's), (67, 25658), (69, 25673), (70, 25676), (72, 25685), (84, 25763), (89, 25787), (91, 25799), (97, 25832), (98, 25835),

Gene: Peaches\_34 Start: 26709, Stop: 27134, Start Num: 49

Candidate Starts for Peaches\_34:

(34, 26628), (Start: 42 @26688 has 8 MA's), (Start: 49 @26709 has 279 MA's), (Start: 51 @26715 has 2 MA's), (Start: 56 @26733 has 1 MA's), (Start: 61 @26766 has 6 MA's), (63, 26778), (67, 26820), (69, 26835), (83, 26919), (88, 26940), (89, 26946), (91, 26958), (97, 26991), (98, 26994), (101, 27015),

Gene: Pembroke\_37 Start: 27201, Stop: 27632, Start Num: 49

Candidate Starts for Pembroke\_37:

(20, 27087), (Start: 22 @27093 has 9 MA's), (Start: 49 @27201 has 279 MA's), (Start: 61 @27270 has 6 MA's), (69, 27339), (70, 27342), (79, 27390), (89, 27453), (91, 27465), (97, 27498), (98, 27501), (107, 27552), (108, 27555), (116, 27594),

Gene: Penny1\_37 Start: 27200, Stop: 27631, Start Num: 49

Candidate Starts for Penny1\_37:

(20, 27086), (Start: 22 @27092 has 9 MA's), (Start: 49 @27200 has 279 MA's), (Start: 61 @27269 has 6 MA's), (69, 27338), (70, 27341), (79, 27389), (89, 27452), (91, 27464), (97, 27497), (98, 27500), (107, 27551), (108, 27554), (116, 27593),

Gene: Perplexer\_34 Start: 26761, Stop: 27186, Start Num: 49

Candidate Starts for Perplexer\_34:

(Start: 49 @26761 has 279 MA's), (Start: 61 @26818 has 6 MA's), (63, 26830), (67, 26872), (69, 26887), (70, 26890), (71, 26896), (83, 26971), (88, 26992), (91, 27010), (97, 27043), (98, 27046), (101, 27067),

Gene: PeterPeter\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for PeterPeter\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: PetiteSangsue\_34 Start: 26764, Stop: 27189, Start Num: 49

Candidate Starts for PetiteSangsue\_34:

(Start: 49 @26764 has 279 MA's), (Start: 61 @26821 has 6 MA's), (63, 26833), (67, 26875), (69, 26890), (70, 26893), (71, 26899), (83, 26974), (88, 26995), (91, 27013), (97, 27046), (98, 27049), (101, 27070),

Gene: PetterN\_33 Start: 25547, Stop: 25975, Start Num: 46

Candidate Starts for PetterN\_33:

(Start: 46 @25547 has 41 MA's), (63, 25616), (64, 25631), (67, 25658), (69, 25679), (85, 25772), (88, 25787), (91, 25805), (96, 25832), (97, 25838), (98, 25841), (106, 25886), (108, 25895), (114, 25931),

Gene: Ph8s\_36 Start: 25834, Stop: 26274, Start Num: 49

Candidate Starts for Ph8s\_36:

(Start: 49 @25834 has 279 MA's), (63, 25915), (69, 25972), (70, 25975), (72, 25984), (79, 26023), (89, 26086), (91, 26098), (97, 26131), (98, 26134), (107, 26185), (108, 26188), (110, 26194), (115, 26227), (120, 26236), (126, 26257),

Gene: Phacado\_34 Start: 26709, Stop: 27134, Start Num: 49

Candidate Starts for Phacado\_34:

(34, 26628), (Start: 42 @26688 has 8 MA's), (Start: 49 @26709 has 279 MA's), (Start: 51 @26715 has 2 MA's), (Start: 56 @26733 has 1 MA's), (Start: 61 @26766 has 6 MA's), (63, 26778), (67, 26820), (69, 26835), (83, 26919), (88, 26940), (89, 26946), (91, 26958), (97, 26991), (98, 26994), (101, 27015),

Gene: Phaded\_39 Start: 28735, Stop: 29169, Start Num: 50

Candidate Starts for Phaded\_39:

(Start: 50 @28735 has 59 MA's), (69, 28870), (78, 28912), (87, 28975), (89, 28984), (91, 28996), (97, 29029),

Gene: PhailMary\_29 Start: 24508, Stop: 24984, Start Num: 49

Candidate Starts for PhailMary\_29:

(Start: 49 @24508 has 279 MA's), (53, 24523), (69, 24661), (70, 24664), (73, 24676), (75, 24688), (82, 24751), (84, 24757), (91, 24793), (104, 24868), (107, 24889), (108, 24892), (113, 24925),

Gene: Phantastic\_34 Start: 26487, Stop: 26918, Start Num: 49

Candidate Starts for Phantastic\_34:

(6, 26301), (20, 26373), (Start: 22 @26379 has 9 MA's), (Start: 49 @26487 has 279 MA's), (68, 26613), (69, 26631), (72, 26643), (78, 26673), (79, 26682), (87, 26736), (89, 26745), (91, 26757), (97, 26790), (108, 26847), (116, 26880),

Gene: Phelipe\_34 Start: 26632, Stop: 27078, Start Num: 49

Candidate Starts for Phelipe\_34:

(Start: 49 @26632 has 279 MA's), (Start: 50 @26635 has 59 MA's), (52, 26641), (Start: 55 @26662 has 4 MA's), (64, 26728), (69, 26776), (70, 26779), (72, 26788), (78, 26818), (87, 26881), (89, 26890), (97, 26935),

Gene: Phighter1804\_34 Start: 26749, Stop: 27177, Start Num: 49

Candidate Starts for Phighter1804\_34:

(Start: 40 @26707 has 1 MA's), (Start: 49 @26749 has 279 MA's), (Start: 54 @26767 has 2 MA's), (Start: 58 @26791 has 2 MA's), (67, 26860), (69, 26875), (71, 26884), (72, 26887), (75, 26902), (84, 26965), (88, 26983), (89, 26989), (91, 27001), (94, 27025), (96, 27028), (97, 27034),

Gene: Phillis\_31 Start: 25226, Stop: 25666, Start Num: 49

Candidate Starts for Phillis\_31:

(Start: 49 @25226 has 279 MA's), (Start: 58 @25277 has 2 MA's), (59, 25280), (63, 25304), (67, 25346), (69, 25367), (73, 25382), (74, 25391), (77, 25400), (80, 25424), (89, 25481), (91, 25493), (92, 25508), (95, 25526), (96, 25529), (97, 25535), (98, 25538), (105, 25574), (108, 25592), (118, 25637),

Gene: PhishRPhriends\_35 Start: 26200, Stop: 26637, Start Num: 49

Candidate Starts for PhishRPhriends\_35:

(25, 26098), (Start: 49 @26200 has 279 MA's), (69, 26344), (78, 26386), (89, 26458), (91, 26470), (97, 26503), (98, 26506), (107, 26557), (108, 26560),

Gene: Phlorence\_31 Start: 26053, Stop: 26472, Start Num: 46

Candidate Starts for Phlorence\_31:

(Start: 46 @26053 has 41 MA's), (Start: 61 @26110 has 6 MA's), (69, 26185), (88, 26293), (91, 26311), (96, 26338), (97, 26344), (98, 26347), (106, 26392), (108, 26401),

Gene: Phoebe\_37 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for Phoebe\_37:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: Phontbonne\_34 Start: 26706, Stop: 27134, Start Num: 49

Candidate Starts for Phontbonne\_34:

(Start: 40 @26664 has 1 MA's), (Start: 49 @26706 has 279 MA's), (Start: 54 @26724 has 2 MA's), (Start: 58 @26748 has 2 MA's), (67, 26817), (69, 26832), (71, 26841), (72, 26844), (75, 26859), (84, 26922), (88, 26940), (89, 26946), (91, 26958), (94, 26982), (96, 26985), (97, 26991),

Gene: Phoxy\_37 Start: 27399, Stop: 27830, Start Num: 49

Candidate Starts for Phoxy\_37:

(33, 27315), (Start: 45 @27393 has 2 MA's), (Start: 49 @27399 has 279 MA's), (Start: 56 @27423 has 1 MA's), (67, 27510), (69, 27531), (70, 27534), (75, 27558), (83, 27618), (85, 27624), (88, 27639), (89, 27645), (95, 27687), (97, 27696), (98, 27699), (107, 27750), (108, 27753), (116, 27792),

Gene: Phrankenstein\_30 Start: 24132, Stop: 24608, Start Num: 49

Candidate Starts for Phrankenstein\_30:

(Start: 49 @24132 has 279 MA's), (53, 24147), (69, 24285), (70, 24288), (73, 24300), (75, 24312), (82, 24375), (84, 24381), (91, 24417), (104, 24492), (107, 24513), (108, 24516), (113, 24549),

Gene: Phranny\_37 Start: 27008, Stop: 27445, Start Num: 49

Candidate Starts for Phranny\_37:

(25, 26906), (Start: 49 @27008 has 279 MA's), (69, 27152), (78, 27194), (89, 27266), (91, 27278), (97, 27311), (98, 27314), (107, 27365), (108, 27368),

Gene: PickleBack\_31 Start: 25767, Stop: 26186, Start Num: 46

Candidate Starts for PickleBack\_31:

(Start: 46 @25767 has 41 MA's), (Start: 61 @25824 has 6 MA's), (69, 25899), (88, 26007), (91, 26025), (96, 26052), (97, 26058), (98, 26061), (106, 26106), (108, 26115),

Gene: Pipcraft\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Pipcraft\_34:

(34, 26629), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Piro94\_35 Start: 27208, Stop: 27645, Start Num: 49

Candidate Starts for Piro94\_35:

(Start: 49 @27208 has 279 MA's), (69, 27346), (78, 27388), (79, 27397), (80, 27403), (87, 27451), (97, 27505), (98, 27508),

Gene: Pistachio\_35 Start: 26255, Stop: 26680, Start Num: 49

Candidate Starts for Pistachio\_35:

(20, 26141), (Start: 22 @26147 has 9 MA's), (Start: 43 @26240 has 3 MA's), (Start: 49 @26255 has 279 MA's), (69, 26393), (87, 26498), (88, 26501), (89, 26507), (91, 26519), (97, 26552), (98, 26555), (108, 26609), (116, 26642),

Gene: Polymorphads\_34 Start: 26628, Stop: 27074, Start Num: 49

Candidate Starts for Polymorphads\_34:

(Start: 49 @26628 has 279 MA's), (Start: 50 @26631 has 59 MA's), (52, 26637), (Start: 55 @26658 has 4 MA's), (64, 26724), (69, 26772), (70, 26775), (72, 26784), (78, 26814), (87, 26877), (89, 26886), (97, 26931),

Gene: Pomar16\_38 Start: 26906, Stop: 27343, Start Num: 49

Candidate Starts for Pomar16\_38:

(Start: 49 @26906 has 279 MA's), (67, 27029), (69, 27044), (78, 27086), (79, 27095), (88, 27152), (91, 27170), (97, 27203), (98, 27206),

Gene: Poompha\_33 Start: 25545, Stop: 25979, Start Num: 49

Candidate Starts for Poompha\_33:

(Start: 49 @25545 has 279 MA's), (67, 25656), (69, 25671), (70, 25674), (72, 25683), (84, 25761), (89, 25785), (91, 25797), (97, 25830), (98, 25833),

Gene: PotatoSplit\_38 Start: 27200, Stop: 27631, Start Num: 49

Candidate Starts for PotatoSplit\_38:

(20, 27086), (Start: 22 @27092 has 9 MA's), (Start: 49 @27200 has 279 MA's), (Start: 61 @27269 has 6 MA's), (69, 27338), (70, 27341), (79, 27389), (89, 27452), (91, 27464), (97, 27497), (98, 27500), (107, 27551), (108, 27554), (116, 27593),

Gene: Power\_34 Start: 26817, Stop: 27251, Start Num: 50

Candidate Starts for Power\_34:

(Start: 50 @26817 has 59 MA's), (69, 26952), (78, 26994), (87, 27057), (89, 27066), (91, 27078), (97, 27111),

Gene: Prinash11\_32 Start: 25912, Stop: 26340, Start Num: 46

Candidate Starts for Prinash11\_32:

(Start: 46 @25912 has 41 MA's), (Start: 61 @25969 has 6 MA's), (69, 26044), (79, 26095), (88, 26152), (91, 26170), (96, 26197), (97, 26203), (98, 26206), (106, 26251), (108, 26260), (114, 26296),

Gene: Pukovnik\_36 Start: 27948, Stop: 28388, Start Num: 50

Candidate Starts for Pukovnik\_36:

(Start: 49 @27945 has 279 MA's), (Start: 50 @27948 has 59 MA's), (52, 27954), (69, 28089), (78, 28131), (79, 28140), (87, 28194), (89, 28203), (91, 28215), (97, 28248), (98, 28251),

Gene: Pumbaa\_34 Start: 26757, Stop: 27185, Start Num: 49

Candidate Starts for Pumbaa\_34:

(Start: 40 @26715 has 1 MA's), (Start: 49 @26757 has 279 MA's), (Start: 54 @26775 has 2 MA's), (Start: 58 @26799 has 2 MA's), (67, 26868), (69, 26883), (71, 26892), (72, 26895), (75, 26910), (84, 26973), (88, 26991), (89, 26997), (91, 27009), (94, 27033), (96, 27036), (97, 27042),

Gene: Puppy\_35 Start: 26325, Stop: 26750, Start Num: 49

Candidate Starts for Puppy\_35:

(20, 26211), (Start: 22 @26217 has 9 MA's), (Start: 43 @26310 has 3 MA's), (Start: 49 @26325 has 279 MA's), (Start: 55 @26355 has 4 MA's), (69, 26463), (87, 26568), (88, 26571), (89, 26577), (91, 26589), (97, 26622), (98, 26625), (108, 26679), (116, 26712),

Gene: PurpleHaze\_36 Start: 27021, Stop: 27458, Start Num: 49

Candidate Starts for PurpleHaze\_36:

(25, 26919), (Start: 49 @27021 has 279 MA's), (69, 27165), (78, 27207), (89, 27279), (91, 27291), (97, 27324), (98, 27327), (107, 27378), (108, 27381),

Gene: QueenB2\_35 Start: 26878, Stop: 27315, Start Num: 49

Candidate Starts for QueenB2\_35:

(20, 26767), (31, 26791), (Start: 49 @26878 has 279 MA's), (67, 27001), (69, 27016), (78, 27058), (79, 27067), (87, 27121), (88, 27124), (89, 27130), (91, 27142), (97, 27175),

Gene: QueenBeesly\_35 Start: 26764, Stop: 27198, Start Num: 50

Candidate Starts for QueenBeesly\_35:

(Start: 50 @26764 has 59 MA's), (69, 26899), (78, 26941), (87, 27004), (89, 27013), (91, 27025), (97, 27058),

Gene: Quokka\_34 Start: 26009, Stop: 26440, Start Num: 49

Candidate Starts for Quokka\_34:

(Start: 49 @26009 has 279 MA's), (Start: 61 @26078 has 6 MA's), (72, 26159), (75, 26174), (83, 26234), (84, 26237), (90, 26264), (91, 26273), (97, 26306), (98, 26309), (107, 26360), (108, 26363), (110, 26369), (111, 26384),

Gene: RER2\_23 Start: 21073, Stop: 21534, Start Num: 53

Candidate Starts for RER2\_23:

(Start: 49 @21058 has 279 MA's), (53, 21073), (69, 21211), (70, 21214), (73, 21226), (75, 21238), (82, 21301), (84, 21307), (91, 21343), (104, 21418), (107, 21439), (108, 21442), (113, 21475),

Gene: RGL3\_23 Start: 21544, Stop: 22017, Start Num: 49

Candidate Starts for RGL3\_23:

(4, 21337), (15, 21412), (18, 21418), (32, 21457), (Start: 49 @21544 has 279 MA's), (69, 21697), (70, 21700), (73, 21712), (75, 21724), (82, 21787), (87, 21808), (100, 21886), (107, 21925), (108, 21928), (117, 21970),

Gene: Rasputin\_30 Start: 24156, Stop: 24632, Start Num: 49

Candidate Starts for Rasputin\_30:

(Start: 49 @24156 has 279 MA's), (69, 24309), (70, 24312), (73, 24324), (75, 24336), (82, 24399), (84, 24405), (91, 24441), (104, 24516), (106, 24531), (107, 24537), (108, 24540),

Gene: Reba\_37 Start: 26681, Stop: 27118, Start Num: 49

Candidate Starts for Reba\_37:

(25, 26579), (Start: 49 @26681 has 279 MA's), (69, 26825), (78, 26867), (89, 26939), (91, 26951), (97, 26984), (98, 26987), (107, 27038), (108, 27041),

Gene: Rebeuca\_36 Start: 27118, Stop: 27543, Start Num: 50

Candidate Starts for Rebeuca\_36:

(35, 27046), (Start: 50 @27118 has 59 MA's), (67, 27223), (69, 27238), (72, 27250), (88, 27343), (89, 27349), (91, 27361), (97, 27394), (106, 27442),

Gene: Relief\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Relief\_34:

(9, 26563), (19, 26587), (34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Retro23\_36 Start: 27143, Stop: 27580, Start Num: 49

Candidate Starts for Retro23\_36:

(2, 26879), (20, 27032), (31, 27056), (Start: 49 @27143 has 279 MA's), (Start: 61 @27212 has 6 MA's), (67, 27266), (69, 27281), (78, 27323), (79, 27332), (87, 27386), (88, 27389), (89, 27395), (91, 27407), (97, 27440),

Gene: RexFury\_30 Start: 24217, Stop: 24693, Start Num: 49

Candidate Starts for RexFury\_30:

(Start: 49 @24217 has 279 MA's), (69, 24370), (70, 24373), (73, 24385), (75, 24397), (82, 24460), (84, 24466), (91, 24502), (104, 24577), (107, 24598), (108, 24601), (113, 24634),

Gene: Roary\_31 Start: 25125, Stop: 25553, Start Num: 47

Candidate Starts for Roary\_31:

(11, 24987), (17, 25002), (25, 25026), (26, 25029), (Start: 47 @25125 has 10 MA's), (67, 25236), (69, 25257), (72, 25269), (75, 25284), (77, 25290), (83, 25344), (84, 25347), (90, 25374), (91, 25383), (96, 25410), (97, 25416), (98, 25419), (108, 25473),

Gene: Rockstar\_34 Start: 26469, Stop: 26894, Start Num: 49

Candidate Starts for Rockstar\_34:

(Start: 49 @26469 has 279 MA's), (Start: 50 @26472 has 59 MA's), (69, 26607), (79, 26658), (87, 26712), (89, 26721), (91, 26733), (97, 26766), (107, 26820), (108, 26823), (116, 26856),

Gene: Romney\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Romney\_34:

(9, 26563), (10, 26566), (19, 26587), (34, 26629), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821),

(69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Roosevelt\_34 Start: 26712, Stop: 27137, Start Num: 49

Candidate Starts for Roosevelt\_34:

(9, 26565), (19, 26589), (34, 26631), (Start: 42 @26691 has 8 MA's), (Start: 49 @26712 has 279 MA's), (Start: 51 @26718 has 2 MA's), (Start: 56 @26736 has 1 MA's), (Start: 61 @26769 has 6 MA's), (63, 26781), (67, 26823), (69, 26838), (83, 26922), (88, 26943), (89, 26949), (91, 26961), (97, 26994), (98, 26997), (101, 27018),

Gene: Rosa24\_33 Start: 26798, Stop: 27184, Start Num: 58

Candidate Starts for Rosa24\_33:

(Start: 49 @26756 has 279 MA's), (Start: 54 @26774 has 2 MA's), (Start: 58 @26798 has 2 MA's), (67, 26867), (69, 26882), (72, 26894), (84, 26972), (87, 26987), (89, 26996), (91, 27008), (96, 27035), (97, 27041),

Gene: Ruin\_34 Start: 26706, Stop: 27131, Start Num: 49

Candidate Starts for Ruin\_34:

(34, 26625), (Start: 42 @26685 has 8 MA's), (Start: 49 @26706 has 279 MA's), (Start: 51 @26712 has 2 MA's), (Start: 56 @26730 has 1 MA's), (Start: 61 @26763 has 6 MA's), (63, 26775), (67, 26817), (69, 26832), (83, 26916), (88, 26937), (89, 26943), (91, 26955), (97, 26988), (98, 26991), (101, 27012),

Gene: Rummer\_37 Start: 27423, Stop: 27830, Start Num: 56

Candidate Starts for Rummer\_37:

(33, 27315), (Start: 45 @27393 has 2 MA's), (Start: 49 @27399 has 279 MA's), (Start: 56 @27423 has 1 MA's), (67, 27510), (69, 27531), (70, 27534), (75, 27558), (83, 27618), (85, 27624), (88, 27639), (89, 27645), (95, 27687), (97, 27696), (98, 27699), (107, 27750), (108, 27753), (116, 27792),

Gene: Sabertooth\_34 Start: 26709, Stop: 27134, Start Num: 49

Candidate Starts for Sabertooth\_34:

(9, 26562), (19, 26586), (34, 26628), (Start: 49 @26709 has 279 MA's), (Start: 51 @26715 has 2 MA's), (Start: 56 @26733 has 1 MA's), (Start: 61 @26766 has 6 MA's), (63, 26778), (67, 26820), (69, 26835), (83, 26919), (88, 26940), (89, 26946), (91, 26958), (97, 26991), (98, 26994), (101, 27015),

Gene: Sabia\_37 Start: 27085, Stop: 27624, Start Num: 22

Candidate Starts for Sabia\_37:

(20, 27079), (Start: 22 @27085 has 9 MA's), (Start: 49 @27193 has 279 MA's), (Start: 61 @27262 has 6 MA's), (69, 27331), (70, 27334), (79, 27382), (89, 27445), (91, 27457), (97, 27490), (98, 27493), (107, 27544), (108, 27547), (116, 27586),

Gene: Scamp\_34 Start: 26712, Stop: 27137, Start Num: 49

Candidate Starts for Scamp\_34:

(34, 26631), (Start: 49 @26712 has 279 MA's), (Start: 51 @26718 has 2 MA's), (Start: 56 @26736 has 1 MA's), (Start: 61 @26769 has 6 MA's), (63, 26781), (67, 26823), (69, 26838), (83, 26922), (88, 26943), (89, 26949), (91, 26961), (97, 26994), (98, 26997), (101, 27018),

Gene: Scorpia\_33 Start: 25624, Stop: 26052, Start Num: 46

Candidate Starts for Scorpia\_33:

(Start: 46 @25624 has 41 MA's), (63, 25693), (64, 25708), (67, 25735), (69, 25756), (85, 25849), (88, 25864), (91, 25882), (96, 25909), (97, 25915), (98, 25918), (106, 25963), (108, 25972), (114, 26008),

Gene: Scout\_34 Start: 26015, Stop: 26440, Start Num: 49

Candidate Starts for Scout\_34:

(20, 25901), (Start: 22 @25907 has 9 MA's), (Start: 43 @26000 has 3 MA's), (Start: 49 @26015 has 279 MA's), (69, 26153), (87, 26258), (88, 26261), (89, 26267), (91, 26279), (97, 26312), (98, 26315), (108, 26369), (116, 26402),

Gene: SemperFi\_36 Start: 27032, Stop: 27466, Start Num: 50

Candidate Starts for SemperFi\_36:

(29, 26936), (Start: 50 @27032 has 59 MA's), (69, 27167), (78, 27209), (87, 27272), (89, 27281), (91, 27293), (97, 27326),

Gene: SenorClean\_33 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for SenorClean\_33:

(9, 26563), (19, 26587), (34, 26629), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Serenity\_36 Start: 26135, Stop: 26563, Start Num: 49

Candidate Starts for Serenity\_36:

(Start: 49 @26135 has 279 MA's), (Start: 61 @26204 has 6 MA's), (75, 26300), (77, 26306), (79, 26324), (83, 26360), (84, 26363), (91, 26399), (97, 26432), (98, 26435), (107, 26486), (108, 26489),

Gene: Severus\_33 Start: 25545, Stop: 25979, Start Num: 49

Candidate Starts for Severus\_33:

(Start: 49 @25545 has 279 MA's), (67, 25656), (69, 25671), (70, 25674), (72, 25683), (84, 25761), (89, 25785), (91, 25797), (97, 25830), (98, 25833),

Gene: Shaka\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Shaka\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: SheaKeira\_36 Start: 26902, Stop: 27321, Start Num: 46

Candidate Starts for SheaKeira\_36:

(44, 26890), (Start: 46 @26902 has 41 MA's), (Start: 56 @26926 has 1 MA's), (67, 27013), (69, 27034), (91, 27160), (97, 27193), (107, 27247), (108, 27250),

Gene: SheldonCooper\_35 Start: 26998, Stop: 27414, Start Num: 55

Candidate Starts for SheldonCooper\_35:

(Start: 49 @26968 has 279 MA's), (Start: 50 @26971 has 59 MA's), (52, 26977), (Start: 55 @26998 has 4 MA's), (64, 27064), (69, 27112), (70, 27115), (72, 27124), (78, 27154), (87, 27217), (88, 27220), (89, 27226), (97, 27271), (122, 27382),

Gene: Shuman\_30 Start: 24199, Stop: 24675, Start Num: 49

Candidate Starts for Shuman\_30:

(Start: 49 @24199 has 279 MA's), (53, 24214), (69, 24352), (70, 24355), (73, 24367), (75, 24379), (82, 24442), (84, 24448), (91, 24484), (104, 24559), (107, 24580), (108, 24583), (113, 24616),

Gene: Shygu2\_34 Start: 26704, Stop: 27129, Start Num: 49

Candidate Starts for Shygu2\_34:

(9, 26557), (19, 26581), (34, 26623), (Start: 49 @26704 has 279 MA's), (Start: 51 @26710 has 2 MA's), (Start: 56 @26728 has 1 MA's), (Start: 61 @26761 has 6 MA's), (63, 26773), (67, 26815), (69, 26830), (83, 26914), (88, 26935), (89, 26941), (91, 26953), (97, 26986), (98, 26989), (101, 27010),



Gene: Skipitt\_34 Start: 26707, Stop: 27132, Start Num: 49

Candidate Starts for Skipitt\_34:

(34, 26626), (Start: 42 @26686 has 8 MA's), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: Sknot\_37 Start: 26782, Stop: 27330, Start Num: 20

Candidate Starts for Sknot\_37:

(20, 26782), (31, 26806), (Start: 49 @26893 has 279 MA's), (Start: 61 @26962 has 6 MA's), (67, 27016), (69, 27031), (78, 27073), (79, 27082), (87, 27136), (89, 27145), (97, 27190), (98, 27193),

Gene: Smeadley\_31 Start: 25158, Stop: 25580, Start Num: 47

Candidate Starts for Smeadley\_31:

(11, 25020), (25, 25059), (26, 25062), (Start: 47 @25158 has 10 MA's), (Start: 61 @25215 has 6 MA's), (67, 25269), (69, 25290), (72, 25302), (75, 25317), (77, 25323), (83, 25377), (84, 25380), (87, 25395), (90, 25407), (91, 25416), (96, 25443), (97, 25449), (98, 25452), (108, 25506), (109, 25509), (112, 25530),

Gene: Smeagan\_37 Start: 27276, Stop: 27716, Start Num: 50

Candidate Starts for Smeagan\_37:

(Start: 50 @27276 has 59 MA's), (Start: 55 @27303 has 4 MA's), (66, 27384), (67, 27396), (69, 27417), (78, 27459), (79, 27468), (85, 27510), (87, 27522), (88, 27525), (89, 27531), (91, 27543), (96, 27570), (97, 27576),

Gene: SnapTap\_35 Start: 26840, Stop: 27277, Start Num: 49

Candidate Starts for SnapTap\_35:

(20, 26729), (31, 26753), (Start: 49 @26840 has 279 MA's), (Start: 61 @26909 has 6 MA's), (67, 26963), (69, 26978), (78, 27020), (79, 27029), (87, 27083), (89, 27092), (91, 27104), (97, 27137),

Gene: Snickers\_37 Start: 27173, Stop: 27604, Start Num: 49

Candidate Starts for Snickers\_37:

(20, 27059), (Start: 22 @27065 has 9 MA's), (Start: 49 @27173 has 279 MA's), (Start: 61 @27242 has 6 MA's), (69, 27311), (70, 27314), (79, 27362), (89, 27425), (91, 27437), (97, 27470), (98, 27473), (107, 27524), (108, 27527), (116, 27566),

Gene: SoYo\_37 Start: 27111, Stop: 27542, Start Num: 49

Candidate Starts for SoYo\_37:

(20, 26997), (Start: 22 @27003 has 9 MA's), (Start: 49 @27111 has 279 MA's), (Start: 61 @27180 has 6 MA's), (69, 27249), (70, 27252), (79, 27300), (89, 27363), (91, 27375), (97, 27408), (98, 27411), (107, 27462), (108, 27465), (116, 27504),

Gene: SoilDragon\_36 Start: 26645, Stop: 27076, Start Num: 49

Candidate Starts for SoilDragon\_36:

(Start: 49 @26645 has 279 MA's), (69, 26783), (70, 26786), (79, 26834), (89, 26897), (91, 26909), (97, 26942), (98, 26945), (107, 26996), (108, 26999), (116, 27038),

Gene: SororFago\_39 Start: 28712, Stop: 29131, Start Num: 48

Candidate Starts for SororFago\_39:

(Start: 48 @28712 has 1 MA's), (Start: 54 @28730 has 2 MA's), (60, 28760), (67, 28823), (69, 28838), (87, 28943), (88, 28946), (89, 28952), (91, 28964), (97, 28997), (98, 29000), (107, 29051), (108, 29054), (116, 29093),

Gene: Soshari\_39 Start: 27392, Stop: 27829, Start Num: 45

Candidate Starts for Soshari\_39:

(33, 27314), (Start: 45 @27392 has 2 MA's), (Start: 49 @27398 has 279 MA's), (Start: 56 @27422 has 1 MA's), (67, 27509), (69, 27530), (70, 27533), (75, 27557), (83, 27617), (85, 27623), (88, 27638), (89, 27644), (95, 27686), (97, 27695), (98, 27698), (107, 27749), (108, 27752), (116, 27791),

Gene: Sparxx\_34 Start: 26633, Stop: 27076, Start Num: 50

Candidate Starts for Sparxx\_34:

(Start: 49 @26630 has 279 MA's), (Start: 50 @26633 has 59 MA's), (52, 26639), (Start: 55 @26660 has 4 MA's), (64, 26726), (69, 26774), (70, 26777), (72, 26786), (78, 26816), (87, 26879), (89, 26888), (97, 26933),

Gene: Spike509\_37 Start: 27399, Stop: 27830, Start Num: 49

Candidate Starts for Spike509\_37:

(33, 27315), (Start: 45 @27393 has 2 MA's), (Start: 49 @27399 has 279 MA's), (Start: 56 @27423 has 1 MA's), (67, 27510), (69, 27531), (70, 27534), (75, 27558), (83, 27618), (85, 27624), (88, 27639), (89, 27645), (95, 27687), (97, 27696), (98, 27699), (107, 27750), (108, 27753), (116, 27792),

Gene: Spino\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Spino\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: StCroix\_30 Start: 24199, Stop: 24675, Start Num: 49

Candidate Starts for StCroix\_30:

(Start: 49 @24199 has 279 MA's), (53, 24214), (69, 24352), (70, 24355), (73, 24367), (75, 24379), (82, 24442), (84, 24448), (91, 24484), (104, 24559), (107, 24580), (108, 24583), (113, 24616),

Gene: Stagni\_37 Start: 27202, Stop: 27633, Start Num: 49

Candidate Starts for Stagni\_37:

(20, 27088), (Start: 22 @27094 has 9 MA's), (Start: 49 @27202 has 279 MA's), (Start: 61 @27271 has 6 MA's), (69, 27340), (70, 27343), (79, 27391), (89, 27454), (91, 27466), (97, 27499), (98, 27502), (107, 27553), (108, 27556), (116, 27595),

Gene: StarStuff\_38 Start: 26868, Stop: 27305, Start Num: 49

Candidate Starts for StarStuff\_38:

(Start: 49 @26868 has 279 MA's), (Start: 50 @26871 has 59 MA's), (67, 26991), (69, 27006), (78, 27048), (79, 27057), (87, 27111), (88, 27114), (91, 27132), (97, 27165), (98, 27168),

Gene: Stasia\_35 Start: 27151, Stop: 27576, Start Num: 49

Candidate Starts for Stasia\_35:

(Start: 49 @27151 has 279 MA's), (Start: 51 @27157 has 2 MA's), (Start: 56 @27175 has 1 MA's), (Start: 61 @27208 has 6 MA's), (67, 27262), (69, 27277), (83, 27361), (88, 27382), (89, 27388), (91, 27400), (97, 27433), (98, 27436), (106, 27481),

Gene: StepMih\_37 Start: 27193, Stop: 27624, Start Num: 49

Candidate Starts for StepMih\_37:

(20, 27079), (Start: 22 @27085 has 9 MA's), (Start: 49 @27193 has 279 MA's), (Start: 61 @27262 has 6 MA's), (69, 27331), (70, 27334), (79, 27382), (89, 27445), (91, 27457), (97, 27490), (98, 27493), (107, 27544), (108, 27547), (116, 27586),

Gene: Stephig9\_31 Start: 25141, Stop: 25581, Start Num: 49

Candidate Starts for Stephig9\_31:

(Start: 49 @25141 has 279 MA's), (Start: 58 @25192 has 2 MA's), (63, 25219), (67, 25261), (69, 25282), (73, 25297), (76, 25312), (77, 25315), (80, 25339), (85, 25375), (89, 25396), (91, 25408), (92, 25423), (93, 25426), (96, 25444), (105, 25489), (108, 25507), (109, 25510), (118, 25552),

Gene: Stink\_35 Start: 27373, Stop: 27801, Start Num: 49

Candidate Starts for Stink\_35:

(Start: 49 @27373 has 279 MA's), (Start: 54 @27391 has 2 MA's), (63, 27442), (67, 27484), (69, 27499), (71, 27508), (72, 27511), (88, 27607), (89, 27613), (91, 27625), (97, 27658), (104, 27691), (122, 27769),

Gene: Superchunk\_34 Start: 25405, Stop: 25860, Start Num: 49

Candidate Starts for Superchunk\_34:

(Start: 49 @25405 has 279 MA's), (Start: 61 @25474 has 6 MA's), (63, 25486), (67, 25528), (69, 25543), (70, 25546), (71, 25552), (72, 25555), (79, 25594), (91, 25669), (97, 25702), (98, 25705), (107, 25756), (108, 25759),

Gene: Swann\_30 Start: 24186, Stop: 24662, Start Num: 49

Candidate Starts for Swann\_30:

(Start: 49 @24186 has 279 MA's), (69, 24339), (70, 24342), (73, 24354), (75, 24366), (82, 24429), (84, 24435), (91, 24471), (104, 24546), (107, 24567), (108, 24570), (113, 24603),

Gene: SweetiePie\_35 Start: 26840, Stop: 27277, Start Num: 49

Candidate Starts for SweetiePie\_35:

(20, 26729), (31, 26753), (Start: 49 @26840 has 279 MA's), (Start: 61 @26909 has 6 MA's), (69, 26978), (78, 27020), (79, 27029), (87, 27083), (89, 27092), (91, 27104), (97, 27137),

Gene: SwirlSquare\_36 Start: 25429, Stop: 25884, Start Num: 49

Candidate Starts for SwirlSquare\_36:

(Start: 49 @25429 has 279 MA's), (65, 25534), (67, 25552), (69, 25567), (70, 25570), (71, 25576), (72, 25579), (79, 25618), (86, 25663), (89, 25681), (91, 25693), (97, 25726), (107, 25780), (108, 25783), (110, 25789),

Gene: Swirley\_31 Start: 25920, Stop: 26345, Start Num: 46

Candidate Starts for Swirley\_31:

(Start: 46 @25920 has 41 MA's), (Start: 61 @25977 has 6 MA's), (69, 26052), (79, 26103), (88, 26160), (91, 26178), (96, 26205), (97, 26211), (98, 26214), (107, 26265), (108, 26268), (116, 26307),

Gene: SydNat\_31 Start: 26202, Stop: 26624, Start Num: 46

Candidate Starts for SydNat\_31:

(Start: 46 @26202 has 41 MA's), (Start: 58 @26244 has 2 MA's), (Start: 61 @26259 has 6 MA's), (69, 26334), (79, 26385), (88, 26442), (96, 26487), (97, 26493), (98, 26496), (106, 26541), (108, 26550),

Gene: TNguyen7\_34 Start: 26666, Stop: 27097, Start Num: 49

Candidate Starts for TNguyen7\_34:

(8, 26516), (13, 26528), (27, 26567), (Start: 49 @26666 has 279 MA's), (52, 26675), (68, 26792), (69, 26810), (72, 26822), (78, 26852), (79, 26861), (87, 26915), (89, 26924), (91, 26936), (97, 26969), (108, 27026), (116, 27059),

Gene: TWAMP\_30 Start: 24186, Stop: 24662, Start Num: 49

Candidate Starts for TWAMP\_30:

(Start: 49 @24186 has 279 MA's), (53, 24201), (69, 24339), (70, 24342), (73, 24354), (75, 24366), (82, 24429), (84, 24435), (91, 24471), (104, 24546), (107, 24567), (108, 24570), (113, 24603),

Gene: Takoda\_30 Start: 24159, Stop: 24635, Start Num: 49

Candidate Starts for Takoda\_30:

(Start: 49 @24159 has 279 MA's), (69, 24312), (70, 24315), (73, 24327), (75, 24339), (82, 24402), (83, 24405), (84, 24408), (91, 24444), (104, 24519), (106, 24534), (107, 24540), (108, 24543),

Gene: Taquarus\_34 Start: 26713, Stop: 27138, Start Num: 49

Candidate Starts for Taquarus\_34:

(34, 26632), (Start: 42 @26692 has 8 MA's), (Start: 49 @26713 has 279 MA's), (Start: 51 @26719 has 2 MA's), (Start: 56 @26737 has 1 MA's), (Start: 61 @26770 has 6 MA's), (63, 26782), (67, 26824), (69, 26839), (83, 26923), (88, 26944), (89, 26950), (91, 26962), (97, 26995), (98, 26998), (101, 27019),

Gene: TarsusIV\_34 Start: 26809, Stop: 27252, Start Num: 49

Candidate Starts for TarsusIV\_34:

(Start: 49 @26809 has 279 MA's), (67, 26932), (69, 26953), (78, 26995), (87, 27058), (88, 27061), (91, 27079), (96, 27106), (97, 27112), (106, 27160),

Gene: Tarynearal\_30 Start: 25942, Stop: 26370, Start Num: 46

Candidate Starts for Tarynearal\_30:

(Start: 46 @25942 has 41 MA's), (Start: 61 @25999 has 6 MA's), (69, 26074), (79, 26125), (88, 26182), (91, 26200), (96, 26227), (97, 26233), (98, 26236), (106, 26281), (108, 26290), (114, 26326),

Gene: Taurus\_37 Start: 27268, Stop: 27630, Start Num: 61

Candidate Starts for Taurus\_37:

(20, 27085), (Start: 22 @27091 has 9 MA's), (Start: 49 @27199 has 279 MA's), (Start: 61 @27268 has 6 MA's), (69, 27337), (70, 27340), (79, 27388), (89, 27451), (91, 27463), (97, 27496), (98, 27499), (107, 27550), (108, 27553), (116, 27592),

Gene: Terrific\_38 Start: 27287, Stop: 27670, Start Num: 58

Candidate Starts for Terrific\_38:

(37, 27170), (Start: 50 @27236 has 59 MA's), (Start: 58 @27287 has 2 MA's), (69, 27371), (78, 27413), (79, 27422), (87, 27476), (88, 27479), (89, 27485), (91, 27497), (97, 27530),

Gene: Thanksgivukkah\_34 Start: 26711, Stop: 27136, Start Num: 49

Candidate Starts for Thanksgivukkah\_34:

(34, 26630), (Start: 42 @26690 has 8 MA's), (Start: 49 @26711 has 279 MA's), (Start: 51 @26717 has 2 MA's), (Start: 56 @26735 has 1 MA's), (Start: 61 @26768 has 6 MA's), (63, 26780), (67, 26822), (69, 26837), (83, 26921), (88, 26942), (89, 26948), (91, 26960), (97, 26993), (98, 26996), (101, 27017),

Gene: Theia\_29 Start: 25966, Stop: 26394, Start Num: 46

Candidate Starts for Theia\_29:

(Start: 46 @25966 has 41 MA's), (69, 26098), (79, 26149), (88, 26206), (91, 26224), (96, 26251), (97, 26257), (98, 26260), (106, 26305), (108, 26314), (114, 26350),

Gene: Tiffany\_37 Start: 26977, Stop: 27516, Start Num: 22

Candidate Starts for Tiffany\_37:

(20, 26971), (Start: 22 @26977 has 9 MA's), (Start: 49 @27085 has 279 MA's), (Start: 61 @27154 has 6 MA's), (69, 27223), (70, 27226), (79, 27274), (89, 27337), (91, 27349), (97, 27382), (98, 27385), (107, 27436), (108, 27439), (116, 27478),

Gene: Tiger\_31 Start: 25844, Stop: 26263, Start Num: 46

Candidate Starts for Tiger\_31:

(Start: 46 @25844 has 41 MA's), (Start: 61 @25901 has 6 MA's), (69, 25976), (88, 26084), (91, 26102), (96, 26129), (97, 26135), (98, 26138), (106, 26183), (108, 26192),

Gene: TinaFeyge\_34 Start: 26627, Stop: 27073, Start Num: 49

Candidate Starts for TinaFeyge\_34:

(Start: 49 @26627 has 279 MA's), (Start: 50 @26630 has 59 MA's), (52, 26636), (Start: 55 @26657 has 4 MA's), (64, 26723), (69, 26771), (70, 26774), (72, 26783), (78, 26813), (87, 26876), (89, 26885), (97, 26930),

Gene: TinyPebbles\_37 Start: 27404, Stop: 27835, Start Num: 49

Candidate Starts for TinyPebbles\_37:

(33, 27320), (Start: 45 @27398 has 2 MA's), (Start: 49 @27404 has 279 MA's), (Start: 56 @27428 has 1 MA's), (67, 27515), (69, 27536), (70, 27539), (83, 27623), (85, 27629), (88, 27644), (89, 27650), (95, 27692), (97, 27701), (98, 27704), (107, 27755), (108, 27758), (116, 27797),

Gene: Tinybot\_33 Start: 26758, Stop: 27186, Start Num: 49

Candidate Starts for Tinybot\_33:

(Start: 49 @26758 has 279 MA's), (Start: 54 @26776 has 2 MA's), (Start: 58 @26800 has 2 MA's), (67, 26869), (69, 26884), (72, 26896), (84, 26974), (87, 26989), (89, 26998), (91, 27010), (96, 27037), (97, 27043),

Gene: TipsytheTRex\_34 Start: 26358, Stop: 26789, Start Num: 49

Candidate Starts for TipsytheTRex\_34:

(Start: 49 @26358 has 279 MA's), (Start: 61 @26427 has 6 MA's), (72, 26508), (75, 26523), (83, 26583), (84, 26586), (90, 26613), (91, 26622), (97, 26655), (98, 26658), (107, 26709), (108, 26712), (110, 26718), (111, 26733),

Gene: TiroTheta9\_34 Start: 26713, Stop: 27132, Start Num: 51

Candidate Starts for TiroTheta9\_34:

(34, 26626), (Start: 42 @26686 has 8 MA's), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: Tomathan\_38 Start: 26865, Stop: 27302, Start Num: 49

Candidate Starts for Tomathan\_38:

(Start: 49 @26865 has 279 MA's), (Start: 50 @26868 has 59 MA's), (67, 26988), (69, 27003), (78, 27045), (79, 27054), (87, 27108), (88, 27111), (91, 27129), (97, 27162), (98, 27165),

Gene: Topanga\_35 Start: 26950, Stop: 27381, Start Num: 49

Candidate Starts for Topanga\_35:

(38, 26914), (Start: 49 @26950 has 279 MA's), (Start: 50 @26953 has 59 MA's), (67, 27061), (69, 27076), (72, 27088), (88, 27181), (89, 27187), (91, 27199), (97, 27232), (106, 27280),

Gene: Travvers\_38 Start: 26865, Stop: 27302, Start Num: 49

Candidate Starts for Travvers\_38:

(Start: 49 @26865 has 279 MA's), (67, 26988), (69, 27003), (78, 27045), (79, 27054), (88, 27111), (91, 27129), (97, 27162), (98, 27165), (101, 27186),

Gene: Trike\_32 Start: 25378, Stop: 25812, Start Num: 49

Candidate Starts for Trike\_32:

(Start: 49 @25378 has 279 MA's), (60, 25426), (63, 25447), (69, 25504), (72, 25516), (84, 25594), (88, 25612), (89, 25618), (91, 25630), (97, 25663),

Gene: Tristan\_36 Start: 28521, Stop: 28964, Start Num: 49

Candidate Starts for Tristan\_36:

(Start: 49 @28521 has 279 MA's), (Start: 50 @28524 has 59 MA's), (52, 28530), (69, 28665), (78, 28707), (79, 28716), (84, 28755), (86, 28761), (87, 28770), (91, 28791), (97, 28824), (121, 28932),

Gene: Trixie\_36 Start: 27768, Stop: 28199, Start Num: 49

Candidate Starts for Trixie\_36:

(Start: 49 @27768 has 279 MA's), (Start: 61 @27837 has 6 MA's), (69, 27906), (78, 27948), (79, 27957), (88, 28014), (89, 28020), (91, 28032), (97, 28065), (98, 28068), (116, 28161), (124, 28176),

Gene: Trooper\_36 Start: 27049, Stop: 27486, Start Num: 49

Candidate Starts for Trooper\_36:

(20, 26938), (31, 26962), (Start: 49 @27049 has 279 MA's), (67, 27172), (69, 27187), (78, 27229), (79, 27238), (87, 27292), (88, 27295), (89, 27301), (91, 27313), (97, 27346),

Gene: TroyPia\_34 Start: 26633, Stop: 27076, Start Num: 50

Candidate Starts for TroyPia\_34:

(Start: 49 @26630 has 279 MA's), (Start: 50 @26633 has 59 MA's), (52, 26639), (Start: 55 @26660 has 4 MA's), (64, 26726), (69, 26774), (70, 26777), (72, 26786), (78, 26816), (87, 26879), (89, 26888), (97, 26933),

Gene: Turbido\_35 Start: 27025, Stop: 27465, Start Num: 50

Candidate Starts for Turbido\_35:

(Start: 50 @27025 has 59 MA's), (Start: 55 @27052 has 4 MA's), (66, 27133), (67, 27145), (69, 27166), (78, 27208), (79, 27217), (87, 27271), (88, 27274), (89, 27280), (91, 27292), (96, 27319), (97, 27325),

Gene: Twigg\_31 Start: 25915, Stop: 26343, Start Num: 46

Candidate Starts for Twigg\_31:

(Start: 46 @25915 has 41 MA's), (Start: 61 @25972 has 6 MA's), (69, 26047), (79, 26098), (88, 26155), (96, 26200), (97, 26206), (98, 26209), (106, 26254), (108, 26263), (114, 26299),

Gene: Twister\_35 Start: 26858, Stop: 27289, Start Num: 49

Candidate Starts for Twister\_35:

(38, 26822), (Start: 49 @26858 has 279 MA's), (Start: 50 @26861 has 59 MA's), (67, 26969), (69, 26984), (72, 26996), (88, 27089), (89, 27095), (91, 27107), (97, 27140), (98, 27143),

Gene: TygerBlood\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for TygerBlood\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: UhSalsa\_30 Start: 24187, Stop: 24663, Start Num: 49

Candidate Starts for UhSalsa\_30:

(Start: 49 @24187 has 279 MA's), (69, 24340), (70, 24343), (73, 24355), (75, 24367), (82, 24430), (84, 24436), (91, 24472), (104, 24547), (107, 24568), (108, 24571), (113, 24604),

Gene: Ulysses\_33 Start: 26492, Stop: 26920, Start Num: 49

Candidate Starts for Ulysses\_33:

(Start: 40 @26450 has 1 MA's), (Start: 49 @26492 has 279 MA's), (Start: 54 @26510 has 2 MA's), (Start: 58 @26534 has 2 MA's), (67, 26603), (69, 26618), (71, 26627), (72, 26630), (75, 26645), (84, 26708), (88, 26726), (89, 26732), (91, 26744), (94, 26768), (96, 26771), (97, 26777),

Gene: UnionJack\_32 Start: 25288, Stop: 25707, Start Num: 46

Candidate Starts for UnionJack\_32:

(Start: 46 @25288 has 41 MA's), (64, 25372), (65, 25381), (67, 25399), (69, 25420), (85, 25513), (88, 25528), (91, 25546), (96, 25573), (97, 25579), (98, 25582), (106, 25627), (108, 25636),

Gene: Updawg\_36 Start: 27224, Stop: 27658, Start Num: 50

Candidate Starts for Updawg\_36:

(37, 27158), (Start: 50 @27224 has 59 MA's), (Start: 58 @27275 has 2 MA's), (67, 27344), (69, 27359), (73, 27374), (78, 27401), (79, 27410), (87, 27464), (97, 27518), (98, 27521),

Gene: VA6\_34 Start: 26805, Stop: 27239, Start Num: 50

Candidate Starts for VA6\_34:

(Start: 49 @26802 has 279 MA's), (Start: 50 @26805 has 59 MA's), (67, 26925), (69, 26940), (78, 26982), (79, 26991), (88, 27048), (91, 27066), (97, 27099), (98, 27102),

Gene: VC3\_37 Start: 26793, Stop: 27227, Start Num: 50

Candidate Starts for VC3\_37:

(Start: 49 @26790 has 279 MA's), (Start: 50 @26793 has 59 MA's), (67, 26913), (69, 26928), (78, 26970), (79, 26979), (88, 27036), (91, 27054), (97, 27087), (98, 27090),

Gene: Vix\_37 Start: 27174, Stop: 27713, Start Num: 22

Candidate Starts for Vix\_37:

(20, 27168), (Start: 22 @27174 has 9 MA's), (Start: 49 @27282 has 279 MA's), (Start: 61 @27351 has 6 MA's), (69, 27420), (70, 27423), (79, 27471), (89, 27534), (91, 27546), (97, 27579), (98, 27582), (107, 27633), (108, 27636), (116, 27675),

Gene: WalterMcMickey\_35 Start: 26858, Stop: 27289, Start Num: 49

Candidate Starts for WalterMcMickey\_35:

(38, 26822), (Start: 49 @26858 has 279 MA's), (Start: 50 @26861 has 59 MA's), (67, 26969), (69, 26984), (72, 26996), (88, 27089), (89, 27095), (91, 27107), (97, 27140), (98, 27143),

Gene: Wander\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Wander\_34:

(34, 26629), (Start: 42 @26689 has 8 MA's), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Watson\_37 Start: 27192, Stop: 27623, Start Num: 49

Candidate Starts for Watson\_37:

(20, 27078), (Start: 22 @27084 has 9 MA's), (Start: 49 @27192 has 279 MA's), (Start: 61 @27261 has 6 MA's), (69, 27330), (70, 27333), (79, 27381), (89, 27444), (91, 27456), (97, 27489), (98, 27492), (107, 27543), (108, 27546), (116, 27585),

Gene: WeiHuaDA\_40 Start: 28460, Stop: 28894, Start Num: 50

Candidate Starts for WeiHuaDA\_40:

(29, 28364), (37, 28394), (Start: 50 @28460 has 59 MA's), (64, 28553), (69, 28595), (78, 28637), (79, 28646), (87, 28700), (91, 28721),

Gene: Whabigail7\_35 Start: 27013, Stop: 27453, Start Num: 50

Candidate Starts for Whabigail7\_35:

(Start: 50 @27013 has 59 MA's), (Start: 55 @27040 has 4 MA's), (66, 27121), (67, 27133), (69, 27154), (78, 27196), (79, 27205), (87, 27259), (88, 27262), (89, 27268), (91, 27280), (96, 27307), (97, 27313),

Gene: WideWale\_36 Start: 27224, Stop: 27658, Start Num: 50

Candidate Starts for WideWale\_36:

(37, 27158), (Start: 50 @27224 has 59 MA's), (Start: 58 @27275 has 2 MA's), (67, 27344), (69, 27359), (73, 27374), (78, 27401), (79, 27410), (87, 27464), (97, 27518), (98, 27521),

Gene: Wilbur\_34 Start: 26710, Stop: 27135, Start Num: 49

Candidate Starts for Wilbur\_34:

(9, 26563), (10, 26566), (19, 26587), (34, 26629), (Start: 49 @26710 has 279 MA's), (Start: 51 @26716 has 2 MA's), (Start: 56 @26734 has 1 MA's), (Start: 61 @26767 has 6 MA's), (63, 26779), (67, 26821), (69, 26836), (83, 26920), (88, 26941), (89, 26947), (91, 26959), (97, 26992), (98, 26995), (101, 27016),

Gene: Wile\_34 Start: 26774, Stop: 27199, Start Num: 49

Candidate Starts for Wile\_34:

(Start: 49 @26774 has 279 MA's), (Start: 61 @26831 has 6 MA's), (63, 26843), (67, 26885), (69, 26900), (70, 26903), (71, 26909), (83, 26984), (88, 27005), (91, 27023), (97, 27056), (98, 27059), (101, 27080),

Gene: Wizard007\_34 Start: 26715, Stop: 27140, Start Num: 49

Candidate Starts for Wizard007\_34:

(34, 26634), (Start: 42 @26694 has 8 MA's), (Start: 49 @26715 has 279 MA's), (Start: 51 @26721 has 2 MA's), (Start: 56 @26739 has 1 MA's), (Start: 61 @26772 has 6 MA's), (63, 26784), (67, 26826), (69, 26841), (83, 26925), (88, 26946), (89, 26952), (91, 26964), (97, 26997), (98, 27000), (101, 27021),

Gene: Wooldri\_39 Start: 27111, Stop: 27542, Start Num: 49

Candidate Starts for Wooldri\_39:

(20, 26997), (Start: 22 @27003 has 9 MA's), (Start: 49 @27111 has 279 MA's), (Start: 61 @27180 has 6 MA's), (69, 27249), (70, 27252), (79, 27300), (89, 27363), (91, 27375), (97, 27408), (98, 27411), (107, 27462), (108, 27465), (116, 27504),

Gene: Xena\_34 Start: 26761, Stop: 27186, Start Num: 49

Candidate Starts for Xena\_34:

(Start: 49 @26761 has 279 MA's), (Start: 61 @26818 has 6 MA's), (63, 26830), (67, 26872), (69, 26887), (70, 26890), (71, 26896), (83, 26971), (88, 26992), (91, 27010), (97, 27043), (98, 27046), (101, 27067),

Gene: XianYue\_36 Start: 27052, Stop: 27486, Start Num: 50

Candidate Starts for XianYue\_36:

(21, 26938), (Start: 50 @27052 has 59 MA's), (64, 27145), (69, 27187), (78, 27229), (79, 27238), (86, 27283), (87, 27292), (89, 27301), (91, 27313), (97, 27346), (98, 27349), (106, 27394),

Gene: Yecey3\_36 Start: 26718, Stop: 27143, Start Num: 49

Candidate Starts for Yecey3\_36:

(5, 26529), (Start: 49 @26718 has 279 MA's), (69, 26862), (89, 26970), (91, 26982), (97, 27015), (107, 27069),

Gene: YoSam321\_34 Start: 26707, Stop: 27132, Start Num: 49

Candidate Starts for YoSam321\_34:

(34, 26626), (Start: 42 @26686 has 8 MA's), (Start: 49 @26707 has 279 MA's), (Start: 51 @26713 has 2 MA's), (Start: 56 @26731 has 1 MA's), (Start: 61 @26764 has 6 MA's), (63, 26776), (67, 26818), (69, 26833), (83, 26917), (88, 26938), (89, 26944), (91, 26956), (97, 26989), (98, 26992), (101, 27013),

Gene: Yogi\_30 Start: 24160, Stop: 24636, Start Num: 49

Candidate Starts for Yogi\_30:

(Start: 49 @24160 has 279 MA's), (69, 24313), (70, 24316), (73, 24328), (75, 24340), (82, 24403), (84, 24409), (91, 24445), (104, 24520), (107, 24541), (108, 24544), (113, 24577),



Gene: Yoncess\_30 Start: 24161, Stop: 24637, Start Num: 49

Candidate Starts for Yoncess\_30:

(Start: 49 @24161 has 279 MA's), (69, 24314), (70, 24317), (73, 24329), (75, 24341), (82, 24404), (84, 24410), (91, 24446), (104, 24521), (107, 24542), (108, 24545),

Gene: Zetzy\_36 Start: 26667, Stop: 27194, Start Num: 30

Candidate Starts for Zetzy\_36:

(20, 26643), (Start: 22 @26649 has 9 MA's), (Start: 30 @26667 has 1 MA's), (Start: 49 @26757 has 279 MA's), (Start: 50 @26760 has 59 MA's), (69, 26901), (78, 26943), (79, 26952), (89, 27015), (91, 27027), (97, 27060), (98, 27063), (107, 27114), (108, 27117), (116, 27156),

Gene: Zimmer\_36 Start: 28554, Stop: 28985, Start Num: 49

Candidate Starts for Zimmer\_36:

(Start: 49 @28554 has 279 MA's), (Start: 58 @28608 has 2 MA's), (67, 28677), (69, 28698), (77, 28731), (87, 28797), (89, 28806), (91, 28818), (94, 28842), (97, 28851), (100, 28866), (104, 28884), (107, 28905), (124, 28962),

Gene: Zolita\_30 Start: 26206, Stop: 26628, Start Num: 46

Candidate Starts for Zolita\_30:

(Start: 46 @26206 has 41 MA's), (Start: 58 @26248 has 2 MA's), (Start: 61 @26263 has 6 MA's), (69, 26338), (79, 26389), (88, 26446), (96, 26491), (97, 26497), (98, 26500), (106, 26545), (108, 26554),