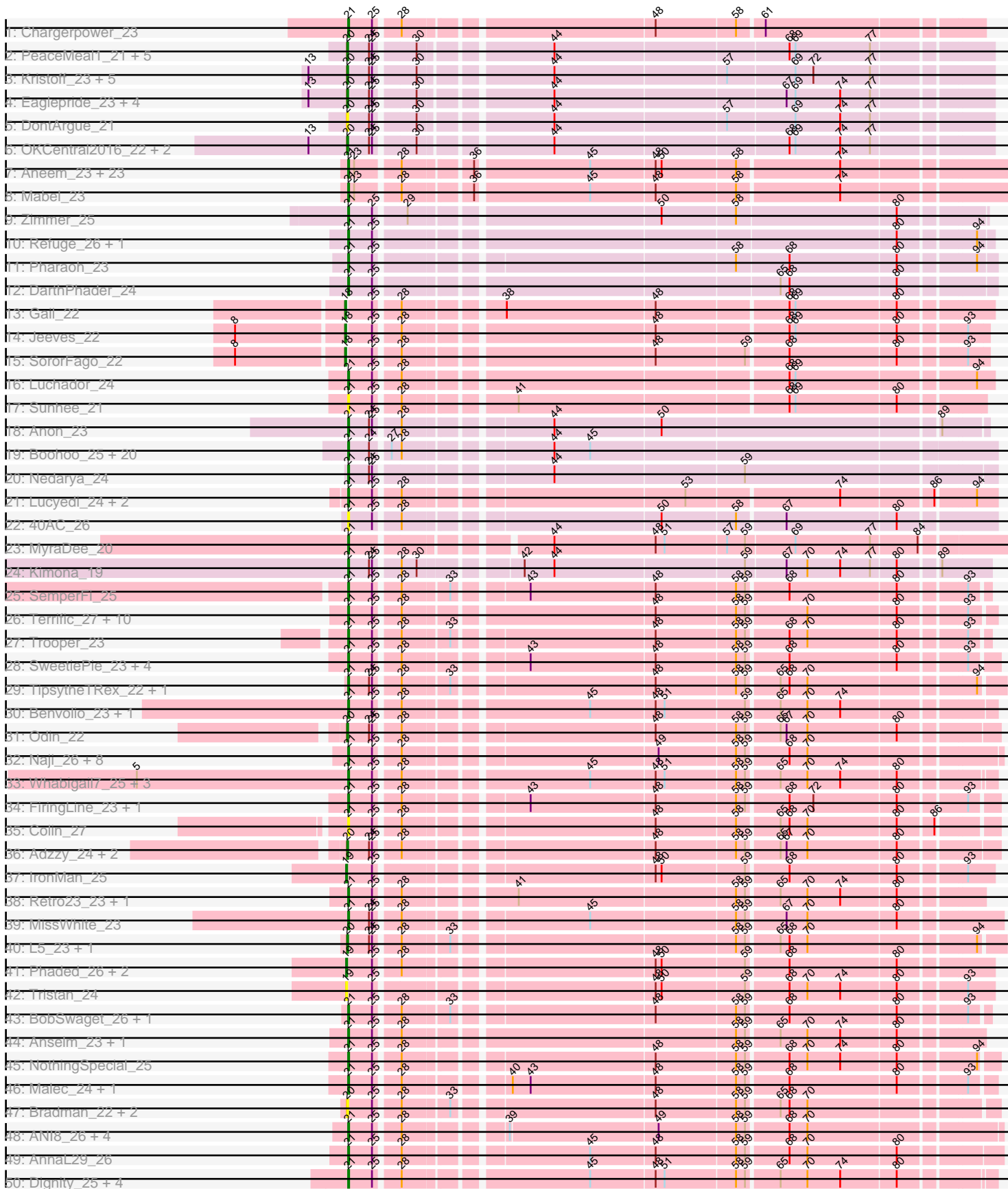
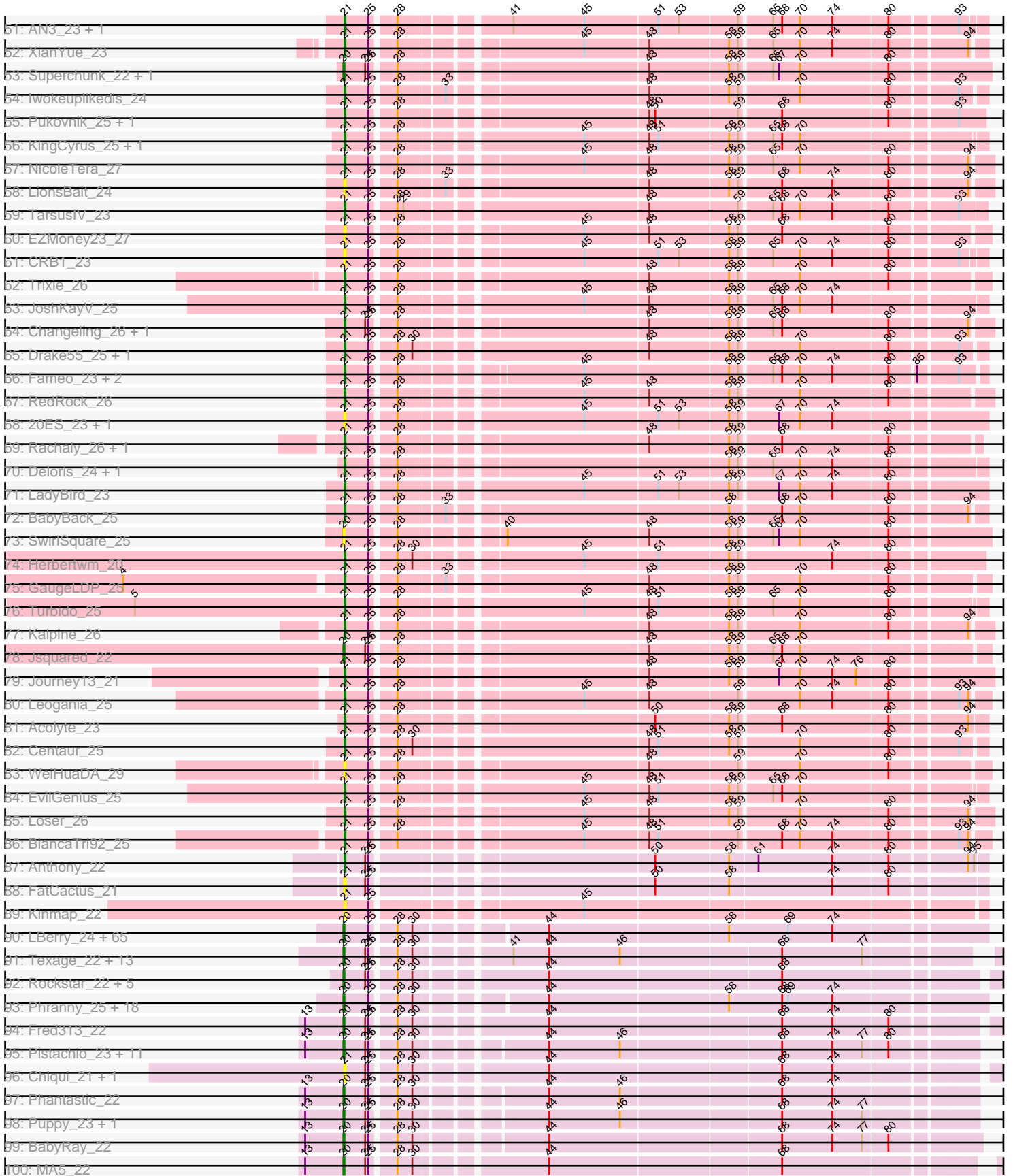


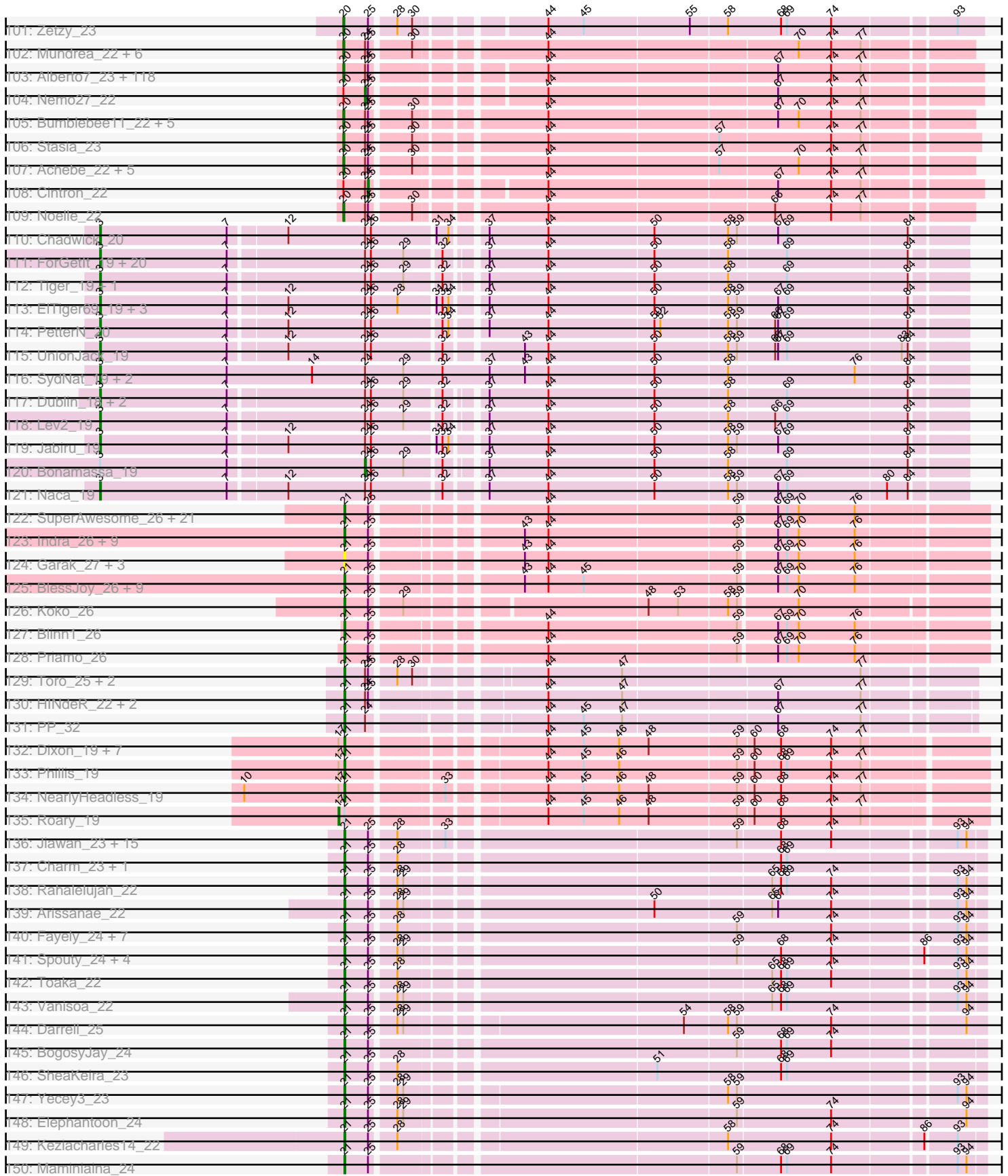
Pham 220987



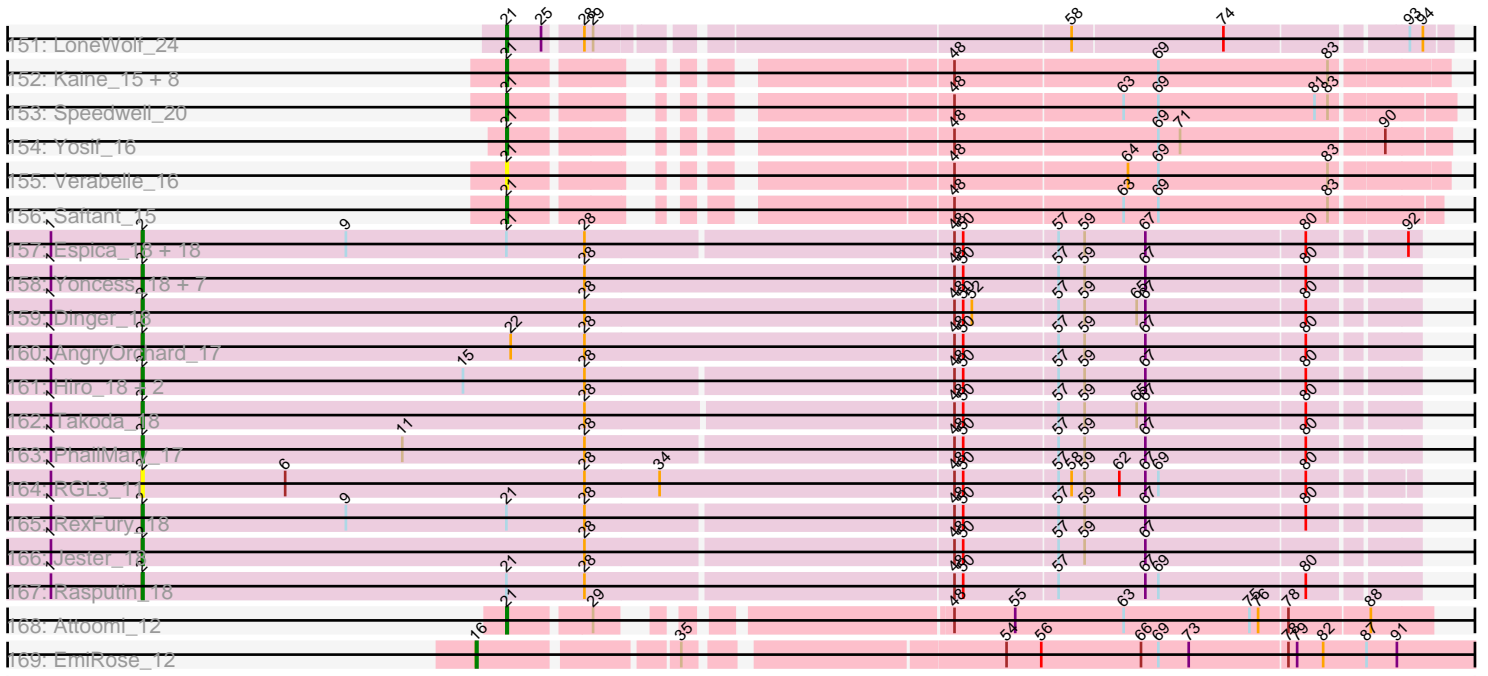
# Pham 220987



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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 220987 Report

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

Pham number 220987 has 680 members, 71 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_23
- Track 2 : PeaceMeal1\_21, Drake94\_21, KittenMittens\_21, Severus\_21, Trike\_20, Poompha\_21
- Track 3 : Kristoff\_23, Rowdy\_25, RhynO\_23, DustyMartin\_25, Shapes\_25, Rebeuca\_23
- Track 4 : Eaglepride\_23, Edison31\_22, WalterMcMickey\_22, Twister\_22, Topanga\_22
- Track 5 : DontArgue\_21
- Track 6 : OKCentral2016\_22, Goose\_22, Chupacabra\_22
- Track 7 : Aneem\_23, Insomnia\_23, Flaverint\_23, Salz\_23, Hutc2\_23, Bachome\_23, Orange\_23, Ebony\_23, Jabith\_23, Sham4\_23, TinyTimmy\_23, Joselito\_23, Gilberta\_23, Et2Brutus\_22, Fibonacci\_23, Bud\_23, Mulciber\_23, Snape\_23, Munch\_23, Lucivia\_23, Bowtie\_23, Timothy\_23, Petersenfast\_22, MaCh\_23
- Track 8 : Mabel\_23
- Track 9 : Zimmer\_25
- Track 10 : Refuge\_26, Steamy\_24
- Track 11 : Pharaoh\_23
- Track 12 : DARTHPhader\_24
- Track 13 : Gail\_22
- Track 14 : Jeeves\_22
- Track 15 : SororFago\_22
- Track 16 : Luchador\_24
- Track 17 : Sunhee\_21
- Track 18 : Anon\_23
- Track 19 : Boohoo\_25, Strosahl\_25, DekHockey33\_25, Oofda\_26, Looper\_26, ReMo\_25, MinecraftSteve\_26, Remus\_25, Rosalind\_25, Battleship\_26, JSwag\_25, ShayRa\_26, Soups\_25, Waits\_25, KatherineG\_25, Nebulosus\_25, LastResort\_25, Warrior24\_26, Epsocamisio\_25, Switzerland\_25, Anaysia\_25
- Track 20 : Nedarya\_24
- Track 21 : Lucyedi\_24, EagleEye\_25, PainterBoy\_24
- Track 22 : 40AC\_26
- Track 23 : MyraDee\_20
- Track 24 : Kimona\_19
- Track 25 : SemperFi\_25
- Track 26 : Terrific\_27, Sknot\_24, Equemioh13\_25, Flare16\_23, Baehexic\_24, Gratitude\_24, HarryHoudini\_25, Updawg\_25, Piro94\_24, NaSiaTalie\_23, WideWale\_25

- Track 27 : Trooper\_23
- Track 28 : SweetiePie\_23, Georgie2\_24, SnapTap\_23, Crucio\_23, Power\_23
- Track 29 : TipsytheTRex\_22, Serenity\_22
- Track 30 : Benvolio\_23, Echild\_23
- Track 31 : Odin\_22
- Track 32 : Naji\_26, DBQu4n\_26, Kerberos\_26, D32\_26, StarStuff\_26, Tomathan\_26, D29\_23, Travvers\_26, Pomar16\_26
- Track 33 : Whabigail7\_25, Jerm\_25, Agape74\_25, LilTurb\_25
- Track 34 : FiringLine\_23, QueenBeesly\_23
- Track 35 : Colin\_27
- Track 36 : Adzzy\_24, Ph8s\_24, Che12\_25
- Track 37 : IronMan\_25
- Track 38 : Retro23\_23, Dalmatian\_23
- Track 39 : MissWhite\_23
- Track 40 : L5\_23, Koduck\_23
- Track 41 : Phaded\_26, Landor\_24, Jaan\_26
- Track 42 : Tristan\_24
- Track 43 : BobSwaget\_26, Miko\_26
- Track 44 : Anselm\_23, DudeLittle\_23
- Track 45 : NothingSpecial\_25
- Track 46 : Malec\_24, Larenn\_24
- Track 47 : Bradman\_22, Quokka\_21, MajorMajor\_22
- Track 48 : ANI8\_26, AN9\_26, VC3\_26, Duplo\_26, C3\_21
- Track 49 : AnnaL29\_26
- Track 50 : Dignity\_25, AbbyPaige\_25, Buggy\_25, Leviathan\_25, Smeagan\_25
- Track 51 : AN3\_23, VA6\_23
- Track 52 : XianYue\_23
- Track 53 : Superchunk\_22, Caraxes\_22
- Track 54 : Iwokeuplikedis\_24
- Track 55 : Pukovnik\_25, Bactobuster\_24
- Track 56 : KingCyrus\_25, ChipMunk\_25
- Track 57 : NicoleTera\_27
- Track 58 : LionsBait\_24
- Track 59 : TarsusIV\_23
- Track 60 : EZMoney23\_27
- Track 61 : CRB1\_23
- Track 62 : Trixie\_26
- Track 63 : JoshKayV\_25
- Track 64 : Changeling\_26, ArcherNM\_25
- Track 65 : Drake55\_25, MiculUcigas\_23
- Track 66 : Fameo\_23, QueenB2\_23, Heffalump\_25
- Track 67 : RedRock\_26
- Track 68 : 20ES\_23, First\_0023
- Track 69 : Rachaly\_26, Lokk\_26
- Track 70 : Deloris\_24, BengiVuitton\_24
- Track 71 : LadyBird\_23
- Track 72 : BabyBack\_25
- Track 73 : SwirlSquare\_25
- Track 74 : Herbertwm\_20
- Track 75 : GaugeLDP\_25
- Track 76 : Turbido\_25
- Track 77 : Kalpine\_26
- Track 78 : Jsquared\_22

- Track 79 : Journey13\_21
- Track 80 : Leogania\_25
- Track 81 : Acolyte\_23
- Track 82 : Centaur\_25
- Track 83 : WeiHuaDA\_29
- Track 84 : EvilGenius\_25
- Track 85 : Loser\_26
- Track 86 : BiancaTri92\_25
- Track 87 : Anthony\_22
- Track 88 : FatCactus\_21
- Track 89 : Kinmap\_22
- Track 90 : LBerry\_24, Sabinator\_24, Hercules11\_24, Grum1\_24, Phoxy\_24, TinyPebbles\_24, PotatoSplit\_25, AugsMagnumOpus\_26, PGHhamlin\_26, KADY\_25, Watson\_24, Mainiac\_24, Cullens\_24, Stagni\_24, LugYA\_26, Sabia\_24, Lilith\_24, Farber\_24, Dieselweasel\_24, Malinsilva\_26, Vix\_24, Rummer\_24, Spike509\_24, SoYo\_24, Phoebe\_24, Grub\_24, Anubis\_26, Methuselah\_23, Beauxregard13\_24, Marie\_24, Louie6\_24, Bxz2\_23, Soshari\_26, GingkoMaracino\_24, MadMarie\_24, StepMih\_24, AgronaGT15\_24, Misomonster\_26, Penny1\_24, EpicPhail\_24, Aglet\_24, Tiffany\_24, BreSam8\_24, MarQuardt\_24, OlanP\_24, Bigflo\_24, Microwolf\_24, Pembroke\_24, Wooldri\_26, Fernando\_24, MuchMore\_26, BuzzBuzz\_23, DaHudson\_24, Colbster\_24, LarryKay\_24, Iowa\_24, Snickers\_24, P28Green\_24, Daishi\_23, JHC117\_24, GtownJaz\_24, JenCasNa\_24, Grif\_24, MoneyMay\_24, Taurus\_24, HashRod\_25
- Track 91 : Texage\_22, Hookmount\_23, Margo\_23, QuinnKiro\_22, Veracruz\_22, Lambert1\_23, Norbert\_22, Todacoro\_23, Caviar\_23, Panamaxus\_22, Pocahontas\_23, Noella\_23, ResDef\_23, Popcicle\_23
- Track 92 : Rockstar\_22, JF2\_22, Isca\_22, JF4\_22, B1\_20, MK4\_22
- Track 93 : Phranny\_25, PurpleHaze\_24, Jobu08\_24, ACFishhook\_24, JeppNRM\_25, Pawn\_24, Gemma\_24, Ollie\_24, HaveUMetTed\_25, Manu\_25, SoilDragon\_24, Groupthink\_25, Kalnoky\_25, Calvinny\_25, Kalb97\_25, Reba\_25, Marius\_25, Heliosoles\_24, PhishRPhriends\_23
- Track 94 : Fred313\_22
- Track 95 : Pistachio\_23, Heathen\_22, HelDan\_22, Kachowdy\_22, Giroux\_22, Idleandcovert\_22, Marchesa\_22, Bugatti\_22, SaturnRing\_22, BlueBird\_23, Scout\_22, DropBear\_22
- Track 96 : Chiqui\_21, BabyJohn\_21
- Track 97 : Phantastic\_22
- Track 98 : Puppy\_23, TNguyen7\_22
- Track 99 : BabyRay\_22
- Track 100 : MA5\_22
- Track 101 : Zetzy\_23
- Track 102 : Mundrea\_22, Stink\_23, Shygu2\_22, Miramae\_22, Cindaradix\_21, AbbysRanger\_22, AvatarAhPeg\_23
- Track 103 : Alberto7\_23, Camperdownii\_21, JetBlade\_22, Gadost\_22, TinaFeyge\_22, Connomayer\_22, KFPoly\_22, LHTSCC\_23, LeoAvram\_22, Florean\_22, ICleared\_22, Dhanush\_22, Caelakin\_22, LittleB\_22, Druantia\_22, LittleGuy\_22, Cerulean\_23, Holli\_22, Kratark\_22, Citius\_22, TygerBlood\_22, Albee\_22, Skipitt\_22, Lunsford\_23, Kingmustik0402\_22, Medusa\_22, Kampy\_22, Funston\_22, Romney\_22, MeeZee\_22, Eros\_22, Burger\_21, TroyPia\_22, Palestino\_22, BellusTerra\_22, Phighter1804\_22, ChampagnePapi\_23, Scamp\_22, Commander\_22, Wilbur\_22, Arturo\_21, Eurydice\_22, Chaph\_22, Nyxis\_22, Phontbonne\_22, Flux\_22, Maverick\_22, Phacado\_22, Eagle\_21, Sabertooth\_22, Shaka\_22, Mayonnaise\_22, Ohfah\_22, Melvin\_22, JoongJeon\_22, OKaNui\_23,

Abdiel\_22, Millski\_22, SenorClean\_21, TiroTheta9\_22, BangNhom\_22, YoSam321\_22, Broseidon\_22, Phelipe\_22, Polymorphads\_22, Taquarus\_22, Lorenzo\_22, SheldonCooper\_23, Wizard007\_22, NotAPhaseMom\_22, Relief\_22, Nebs\_22, CentreCat\_22, Kyee\_22, Thanksgivukkah\_22, LappelDuVide\_22, Lemur\_22, Maxo\_22, Tinybot\_21, Blackmoor\_22, Eris\_22, Houdini22\_22, Wander\_22, Iracema64\_23, DirtyDunning\_22, Clarenza\_22, Happiness\_22, HamSlice\_21, BubbleTrouble\_22, Pumbaa\_22, Jaykayelowell\_22, Huxley\_22, Spino\_22, Roosevelt\_22, Bruiser\_22, Cocoaberry\_22, Koreni\_21, Ruin\_22, Mazhar510\_22, Morrow\_22, Pipcraft\_22, Bombshell\_22, Sparxx\_22, Baby16\_22, Bartimeaus\_22, Rosa24\_21, Kremtemulon\_22, LochMonster\_22, PeterPeter\_22, Eapen\_22, Iceman\_23, Obama12\_23, Ulysses\_21, Koan\_21, NorthStar\_22, Peaches\_22, Annyong\_22, Deano\_22, Avle17\_22

- Track 104 : Nemo27\_22
- Track 105 : Bumblebee11\_22, Cici\_22, Morpher26\_22, PetiteSangsue\_22, Katalie136\_22, Perplexer\_22
- Track 106 : Stasia\_23
- Track 107 : Achebe\_22, Wile\_22, Xena\_22, Badger\_22, Backyardigan\_22, Datway\_22
- Track 108 : Cintron\_22
- Track 109 : Noelle\_22
- Track 110 : Chadwick\_20
- Track 111 : ForGetIt\_19, Jovo\_19, Aragog\_19, Cuco\_19, Twigg\_19, Tarynearal\_18, Midas2\_19, HuhtaEnerson15\_19, Milcery\_19, Phlorence\_19, PickleBack\_19, Prinasha11\_20, Archetta\_19, Swirley\_19, Coog\_19, Bluefalcon\_18, Discoknowium\_19, George\_18, AgentM\_19, LittleCherry\_19, Micasa\_19
- Track 112 : Tiger\_19, Conspiracy\_19
- Track 113 : ElTiger69\_19, Benedict\_19, Scorpia\_20, Airmid\_19
- Track 114 : PetterN\_20
- Track 115 : UnionJack\_19
- Track 116 : SydNat\_19, Ghoulboy\_19, Zolita\_18
- Track 117 : Dublin\_18, Theia\_17, MarysWell\_18
- Track 118 : Lev2\_19
- Track 119 : Jabiru\_19
- Track 120 : Bonamassa\_19
- Track 121 : Naca\_19
- Track 122 : SuperAwesome\_26, JewelBug\_26, Polyphemus\_25, McFly\_26, Neeharika16\_26, SuperCallie99\_26, GreedyLawyer\_26, Kazan\_26, Isiphiwo\_26, EricB\_26, Pmask\_26, Jordennis\_26, SmellyB\_26, VohminGhazi\_26, BABullseye\_26, Newrala\_26, Chartreuse\_26, Kipper29\_26, Dorothea\_26, DaVinci\_26, Cookiedough\_26, Hoot\_26
- Track 123 : Indra\_26, Hexamo\_26, Blue7\_26, CloudWang3\_26, Gladiator\_26, Jeffabunny\_26, Hammer\_26, Gruunaga\_26, Artemis2UCLA\_26, Roksolana\_26
- Track 124 : Garak\_27, Helmet\_27, Candra\_26, Temprado\_27
- Track 125 : BlessJoy\_26, Wiks\_26, Rifter\_26, Tucker\_26, Zaka\_26, Lilbunny\_26, Yokurt\_26, ToneTone\_24, Zulu\_26, WunderPhul\_26
- Track 126 : Koko\_26
- Track 127 : Blinn1\_26
- Track 128 : Priamo\_26
- Track 129 : Toro\_25, Sheen\_24, FlyCatcher\_26
- Track 130 : HINdeR\_22, DroogsArmy\_23, Timshel\_23
- Track 131 : PP\_32
- Track 132 : Dixon\_19, Smeadley\_19, Expelliarmus\_18, Danforth\_18, Saintus\_19, Groundhog\_18, Stephig9\_19, Astro\_19



- Track 133 : Phillis\_19
- Track 134 : NearlyHeadless\_19
- Track 135 : Roary\_19
- Track 136 : Jiawan\_23, Conquerage\_24, Beemo\_24, ExplosioNervosa\_24, RyeScarlet\_25, Lilleskat\_22, Hanray\_23, EdogawaKiddo\_22, Onglai\_23, Scherzo\_24, Qobbit\_24, Pioneer\_24, Ugenie5\_21, Phonnegut\_24, Horex\_23, Sachima\_22
- Track 137 : Charm\_23, DreamTeam1\_23
- Track 138 : Rahalelujah\_22
- Track 139 : Arissanae\_22
- Track 140 : Fayely\_24, Aliter\_24, Tubs\_24, Catalina\_24, PackMan\_24, Phaeder\_24, Myxus\_24, HortumSL17\_24
- Track 141 : Spouty\_24, EmyBug\_24, Priya\_24, Eidsmoe\_24, Alma\_24
- Track 142 : Toaka\_22
- Track 143 : Vanisoa\_22
- Track 144 : Darrell\_25
- Track 145 : BogosyJay\_24
- Track 146 : SheaKeira\_23
- Track 147 : Yecey3\_23
- Track 148 : Elephantoon\_24
- Track 149 : Keziacharles14\_22
- Track 150 : Maminiaina\_24
- Track 151 : LoneWolf\_24
- Track 152 : Kaine\_15, Vanseggelen\_19, Conan\_16, Dexers\_14, ElGato\_16, Celery\_18, Provolone\_16, Alsaber\_16, Pavo\_16
- Track 153 : Speedwell\_20
- Track 154 : Yosif\_16
- Track 155 : Verabelle\_16
- Track 156 : Saftant\_15
- Track 157 : Espica\_18, Gollum\_18, Naiad\_18, Belenaria\_18, Phrankenstein\_18, Erik\_18, RER2\_11, CosmicSans\_18, Swann\_18, TWAMP\_18, StCroix\_18, Bradshaw\_18, Alatin\_18, Lillie\_18, Natosaleda\_18, UhSalsa\_18, Nancinator\_18, Rhodalysa\_18, Shuman\_18
- Track 158 : Yoncess\_18, Alpacados\_17, Harlequin\_18, BobbyDazzler\_18, Bonanza\_18, Partridge\_18, Bryce\_18, Yogi\_18
- Track 159 : Dinger\_18
- Track 160 : AngryOrchard\_17
- Track 161 : Hiro\_18, Krishelle\_18, AppleCloud\_16
- Track 162 : Takoda\_18
- Track 163 : PhailMary\_17
- Track 164 : RGL3\_11
- Track 165 : RexFury\_18
- Track 166 : Jester\_18
- Track 167 : Rasputin\_18
- Track 168 : Attoomi\_12
- Track 169 : EmiRose\_12

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

The start number called the most often in the published annotations is 20, it was called in 272 of the 609 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook\_24, AbbysRanger\_22, Abdiel\_22, Achebe\_22, Adzzy\_24, Aglet\_24, AgronaGT15\_24, Albee\_22, Alberto7\_23, Annyong\_22, Anubis\_26, Arturo\_21, AugsMagnumOpus\_26, AvatarAhPeg\_23, Avle17\_22, B1\_20, Baby16\_22, BabyRay\_22, Backyardigan\_22, Badger\_22, BangNhom\_22, Bartimeaus\_22, Beauxregard13\_24, BellusTerra\_22, Bigflo\_24, Blackmoor\_22, BlueBird\_23, Bombshell\_22, Bradman\_22, BreSam8\_24, Broseidon\_22, Bruiser\_22, BubbleTrouble\_22, Bugatti\_22, Bumblebee11\_22, Burger\_21, BuzzBuzz\_23, Bxz2\_23, Caelakin\_22, Calvinny\_25, Camperdownii\_21, Caraxes\_22, Caviar\_23, CentreCat\_22, Cerulean\_23, ChampagnePapi\_23, Chaph\_22, Che12\_25, Chupacabra\_22, Cici\_22, Cindaradix\_21, Citius\_22, Clarenza\_22, Cocoaberry\_22, Colbster\_24, Commander\_22, Connomayer\_22, Cullens\_24, DaHudson\_24, Daishi\_23, Datway\_22, Deano\_22, Dhanush\_22, Dieselweasel\_24, DirtyDunning\_22, DontArgue\_21, Drake94\_21, DropBear\_22, Druantia\_22, DustyMartin\_25, Eagle\_21, Eaglepride\_23, Eapen\_22, Edison31\_22, EpicPhail\_24, Eris\_22, Eros\_22, Eurydice\_22, Farber\_24, Fernando\_24, Florean\_22, Flux\_22, Fred313\_22, Funston\_22, Gadost\_22, Gemma\_24, GingkoMaracino\_24, Giroux\_22, Goose\_22, Grif\_24, Groupthink\_25, Grub\_24, Grum1\_24, GtownJaz\_24, HamSlice\_21, Happiness\_22, HashRod\_25, HaveUMetTed\_25, Heathen\_22, HelDan\_22, Heliosoles\_24, Hercules11\_24, Holli\_22, Hookmount\_23, Houdini22\_22, Huxley\_22, ICleared\_22, Iceman\_23, Idleandcovert\_22, Iracema64\_23, Isca\_22, JF2\_22, JF4\_22, JHC117\_24, Jaykayelowell\_22, JenCasNa\_24, JeppNRM\_25, JetBlade\_22, Jobu08\_24, JoongJeon\_22, Jsquared\_22, KADY\_25, KFPoly\_22, Kachowdy\_22, Kalb97\_25, Kalnoky\_25, Kamy\_22, Katalie136\_22, Kingmustik0402\_22, KittenMittens\_21, Koan\_21, Koduck\_23, Koreni\_21, Kratak\_22, Kremtemulon\_22, Kristoff\_23, Kyee\_22, L5\_23, LBerry\_24, LHTSCC\_23, Lambert1\_23, LappelDuVide\_22, LarryKay\_24, Lemur\_22, LeoAvram\_22, Lilith\_24, LittleB\_22, LittleGuy\_22, LochMonster\_22, Lorenzo\_22, Louie6\_24, Lowa\_24, LugYA\_26, Lunsford\_23, MA5\_22, MK4\_22, MadMarie\_24, Mainiac\_24, MajorMajor\_22, Malinsilva\_26, Manu\_25, MarQuardt\_24, Marchesa\_22, Margo\_23, Marie\_24, Marius\_25, Maverick\_22, Maxo\_22, Mayonnaise\_22, Mazhar510\_22, Medusa\_22, MeeZee\_22, Melvin\_22, Methuselah\_23, Microwolf\_24, Millski\_22, Miramae\_22, Misomonster\_26, MoneyMay\_24, Morpher26\_22, Morrow\_22, MuchMore\_26, Mundrea\_22, Nebs\_22, Noella\_23, Noelle\_22, Norbert\_22, NorthStar\_22, NotAPhaseMom\_22, Nyxis\_22, OKCentral2016\_22, OKaNui\_23, Obama12\_23, Odin\_22, Ohfah\_22, OlanP\_24, Ollie\_24, P28Green\_24, PGHhamlin\_26, Palestino\_22, Panamaxus\_22, Pawn\_24, PeaceMeal1\_21, Peaches\_22, Pembroke\_24, Penny1\_24, Perplexer\_22, PeterPeter\_22, PetiteSangsue\_22, Ph8s\_24, Phacado\_22, Phantastic\_22, Felipe\_22, Phighter1804\_22, PhishRPhriends\_23, Phoebe\_24, Phontbonne\_22, Phoxy\_24, Phranny\_25, Pipcraft\_22, Pistachio\_23, Pocahontas\_23, Polymorphads\_22, Poompha\_21, Popcicle\_23, PotatoSplit\_25, Pumbaa\_22, Puppy\_23, PurpleHaze\_24, QuinnKiro\_22, Quokka\_21, Reba\_25, Rebeuca\_23, Relief\_22, ResDef\_23, RhynO\_23, Rockstar\_22, Romney\_22, Roosevelt\_22, Rosa24\_21, Rowdy\_25, Ruin\_22, Rummer\_24, Sabertooth\_22, Sabia\_24, Sabinator\_24, SaturnRing\_22, Scamp\_22, Scout\_22, SeniorClean\_21, Severus\_21, Shaka\_22, Shapes\_25, SheldonCooper\_23, Shygu2\_22, Skipitt\_22, Snickers\_24, SoYo\_24, SoilDragon\_24, Soshari\_26, Sparxx\_22, Spike509\_24, Spino\_22, Stagni\_24, Stasia\_23, StepMih\_24, Stink\_23, Superchunk\_22, SwirlSquare\_25, TNguyen7\_22, Taquarus\_22, Taurus\_24, Texage\_22, Thanksgivukkah\_22, Tiffany\_24, TinaFeyge\_22, TinyPebbles\_24,

Tinybot\_21, TiroTheta9\_22, Todacoro\_23, Topanga\_22, Trike\_20, TroyPia\_22, Twister\_22, TygerBlood\_22, Ulysses\_21, Veracruz\_22, Vix\_24, WalterMcMickey\_22, Wander\_22, Watson\_24, Wilbur\_22, Wile\_22, Wizard007\_22, Wooldri\_26, Xena\_22, YoSam321\_22, Zetzy\_23,

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

- Cintron\_22, Nemo27\_22,

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

- 20ES\_23, 40AC\_26, AN3\_23, AN9\_26, ANI8\_26, AbbyPaige\_25, Acolyte\_23, Agape74\_25, AgentM\_19, Airmid\_19, Alatin\_18, Aliter\_24, Alma\_24, Alpacados\_17, Alsaber\_16, Anaysia\_25, Aneem\_23, AngryOrchard\_17, AnnaL29\_26, Anon\_23, Anselm\_23, Anthony\_22, AppleCloud\_16, Aragog\_19, ArcherNM\_25, Archetta\_19, Arissanae\_22, Artemis2UCLA\_26, Astro\_19, Attoomi\_12, BABullseye\_26, BabyBack\_25, BabyJohn\_21, Bachome\_23, Bactobuster\_24, Baehexic\_24, Battleship\_26, Beemo\_24, Belenaria\_18, Benedict\_19, BengiVuitton\_24, Benvolio\_23, BiancaTri92\_25, BlessJoy\_26, Blinn1\_26, Blue7\_26, Bluefalcon\_18, BobSwaget\_26, BobbyDazzler\_18, BogosyJay\_24, Bonamassa\_19, Bonanza\_18, Boohoo\_25, Bowtie\_23, Bradshaw\_18, Bryce\_18, Bud\_23, Buggy\_25, C3\_21, CRB1\_23, Candra\_26, Catalina\_24, Celery\_18, Centaur\_25, Chadwick\_20, Changeling\_26, Chargerpower\_23, Charm\_23, Chartreuse\_26, ChipMunk\_25, Chiqui\_21, CloudWang3\_26, Colin\_27, Conan\_16, Conquerage\_24, Conspiracy\_19, Coog\_19, Cookiedough\_26, CosmicSans\_18, Crucio\_23, Cuco\_19, D29\_23, D32\_26, DBQu4n\_26, DaVinci\_26, Dalmatian\_23, Danforth\_18, Darrell\_25, DarthPhader\_24, DekHockey33\_25, Deloris\_24, Dexers\_14, Dignity\_25, Dinger\_18, Discoknowium\_19, Dixon\_19, Dorothea\_26, Drake55\_25, DreamTeam1\_23, DroogsArmy\_23, Dublin\_18, DudeLittle\_23, Duplo\_26, EZMoney23\_27, EagleEye\_25, Ebony\_23, Echild\_23, EdogawaKiddo\_22, Eidsmoe\_24, ElGato\_16, ElTiger69\_19, Elephantoon\_24, EmiRose\_12, EmyBug\_24, Epsocamisio\_25, Equemioh13\_25, EricB\_26, Erik\_18, Espica\_18, Et2Brutus\_22, EvilGenius\_25, Expelliarmus\_18, ExplosioNervosa\_24, Fameo\_23, FatCactus\_21, Fayely\_24, Fibonacci\_23, FiringLine\_23, First\_0023, Flare16\_23, Flaverint\_23, FlyCatcher\_26, ForGetIt\_19, Gail\_22, Garak\_27, GaugeLDP\_25, George\_18, Georgie2\_24, Ghoulboy\_19, Gilberta\_23, Gladiator\_26, Gollum\_18, Gratitude\_24, GreedyLawyer\_26, Groundhog\_18, Gruunaga\_26, HINdeR\_22, Hammer\_26, Hanray\_23, Harlequin\_18, HarryHoudini\_25, Heffalump\_25, Helmet\_27, Herbertwm\_20, Hexamo\_26, Hiro\_18, Horex\_23, Hoot\_26, HortumSL17\_24, HuhtaEnerson15\_19, Hutc2\_23, Indra\_26, Insomnia\_23, IronMan\_25, Isiphiwo\_26, Iwokeuplikedis\_24, JSwag\_25, Jaan\_26, Jabiru\_19, Jabith\_23, Jeeves\_22, Jeffabunny\_26, Jerm\_25, Jester\_18, JewelBug\_26, Jiawan\_23, Jordennis\_26, Joselito\_23, JoshKayV\_25, Journey13\_21, Jovo\_19, Kaine\_15, Kalpine\_26, KatherineG\_25, Kazan\_26, Kerberos\_26, Keziacharles14\_22, Kimona\_19, KingCyrus\_25, Kinmap\_22, Kipper29\_26, Koko\_26, Krishelle\_18, LadyBird\_23, Landor\_24, Larenn\_24, LastResort\_25, Leogania\_25, Lev2\_19, Leviathan\_25, LilTurb\_25, Lilbunny\_26, Lilleskat\_22, Lillie\_18, LionsBait\_24, LittleCherry\_19, Lokk\_26, LoneWolf\_24, Looper\_26, Loser\_26, Luchador\_24, Lucivia\_23, Lucyedi\_24, MaCh\_23, Mabel\_23, Malec\_24, Maminiaina\_24, MarysWell\_18, McFly\_26, Micasa\_19, MiculUcigas\_23, Midas2\_19, Miko\_26, Milcery\_19, MinecraftSteve\_26, MissWhite\_23, Mulciber\_23, Munch\_23, MyraDee\_20, Myxus\_24, NaSiaTalie\_23, Naca\_19, Naiad\_18, Naji\_26, Nancinator\_18, Natosaleda\_18, NearlyHeadless\_19, Nebulosus\_25, Nedarya\_24, Neeharika16\_26, Newrala\_26, NicoleTera\_27, NothingSpecial\_25, Onglai\_23, Oofda\_26, Orange\_23, PP\_32, PackMan\_24, PainterBoy\_24, Partridge\_18, Pavo\_16, Petersenfast\_22, PetterN\_20, Phaded\_26,

Phaeder\_24, PhailMary\_17, Pharaoh\_23, Phillis\_19, Phlorence\_19, Phonnegut\_24, Phrankenstein\_18, PickleBack\_19, Pioneer\_24, Piro94\_24, Pmask\_26, Polyphemus\_25, Pomar16\_26, Power\_23, Priamo\_26, Prin Ashe11\_20, Priya\_24, Provolone\_16, Pukovnik\_25, Qobbit\_24, QueenB2\_23, QueenBeesly\_23, RER2\_11, RGL3\_11, Rachaly\_26, Rahalelujah\_22, Rasputin\_18, ReMo\_25, RedRock\_26, Refuge\_26, Remus\_25, Retro23\_23, RexFury\_18, Rhodalysa\_18, Rifter\_26, Roary\_19, Roksolana\_26, Rosalind\_25, RyeScarlet\_25, Sachima\_22, Saftant\_15, Saintus\_19, Salz\_23, Scherzo\_24, Scorpia\_20, SemperFi\_25, Serenity\_22, Sham4\_23, ShayRa\_26, SheaKeira\_23, Sheen\_24, Shuman\_18, Sknot\_24, Smeadley\_19, Smeagan\_25, SmellyB\_26, SnapTap\_23, Snape\_23, SororFago\_22, Soups\_25, Speedwell\_20, Spouty\_24, StCroix\_18, StarStuff\_26, Steamy\_24, Stephig9\_19, Strosahl\_25, Sunhee\_21, SuperAwesome\_26, SuperCallie99\_26, Swann\_18, SweetiePie\_23, Swirley\_19, Switzerland\_25, SydNat\_19, TWAMP\_18, Takoda\_18, TarsusIV\_23, Tarynearal\_18, Temprado\_27, Terrific\_27, Theia\_17, Tiger\_19, Timothy\_23, Timshel\_23, TinyTimmy\_23, TipsytheTRex\_22, Toaka\_22, Tomathan\_26, ToneTone\_24, Toro\_25, Travvers\_26, Tristan\_24, Trixie\_26, Trooper\_23, Tubs\_24, Tucker\_26, Turbido\_25, Twigg\_19, Ugenie5\_21, UhSalsa\_18, UnionJack\_19, Updawg\_25, VA6\_23, VC3\_26, Vanisoa\_22, Vanseggelen\_19, Verabelle\_16, VohminGhazi\_26, Waits\_25, Warrior24\_26, WeiHuaDA\_29, Whabigail7\_25, WideWale\_25, Wiks\_26, WunderPhul\_26, XianYue\_23, Yecey3\_23, Yogi\_18, Yokurt\_26, Yoncess\_18, Yosif\_16, Zaka\_26, Zimmer\_25, Zolita\_18, Zulu\_26,

### Summary by start number:

#### Start 2:

- Found in 38 of 680 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 36 of 609
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alatin\_18 (CA), Alpacados\_17 (CA), AngryOrchard\_17 (CA), AppleCloud\_16 (CA), Belenaria\_18 (CA), BobbyDazzler\_18 (CA), Bonanza\_18 (CA), Bradshaw\_18 (CA), Bryce\_18 (CA), CosmicSans\_18 (CA), Dinger\_18 (CA), Erik\_18 (CA), Espica\_18 (CA), Gollum\_18 (CA), Harlequin\_18 (CA), Hiro\_18 (CA), Jester\_18 (CA), Krishelle\_18 (CA), Lillie\_18 (CA), Naiad\_18 (CA), Nancinator\_18 (CA), Natosaleda\_18 (CA), Partridge\_18 (CA), PhailMary\_17 (CA), Phrankenstein\_18 (CA), RER2\_11 (CA), RGL3\_11 (CA), Rasputin\_18 (CA), RexFury\_18 (CA), Rhodalysa\_18 (CA), Shuman\_18 (CA), StCroix\_18 (CA), Swann\_18 (CA), TWAMP\_18 (CA), Takoda\_18 (CA), UhSalsa\_18 (CA), Yogi\_18 (CA), Yoncess\_18 (CA),

#### Start 3:

- Found in 40 of 680 ( 5.9% ) of genes in pham
- Manual Annotations of this start: 37 of 609
- Called 97.5% of time when present
- Phage (with cluster) where this start called: AgentM\_19 (A5), Airmid\_19 (A5), Aragog\_19 (A5), Archetta\_19 (A5), Benedict\_19 (A5), Bluefalcon\_18 (A5), Chadwick\_20 (A5), Conspiracy\_19 (A5), Coog\_19 (A5), Cuco\_19 (A5), Discoknowium\_19 (A5), Dublin\_18 (A5), EITiger69\_19 (A5), ForGetIt\_19 (A5), George\_18 (A5), Ghoulboy\_19 (A5), HuhtaEnerson15\_19 (A5), Jabiru\_19 (A5), Jovo\_19 (A5), Lev2\_19 (A5), LittleCherry\_19 (A5), MarysWell\_18 (A5), Micasa\_19 (A5), Midas2\_19 (A5), Milcery\_19 (A5), Naca\_19 (A5), PetterN\_20 (A5), Phlorence\_19 (A5), PickleBack\_19 (A5), Prin Ashe11\_20 (A5), Scorpia\_20 (A5), Swirley\_19 (A5), SydNat\_19 (A5), Tarynearal\_18 (A5), Theia\_17 (A5), Tiger\_19 (A5),

Twigg\_19 (A5), UnionJack\_19 (A5), Zolita\_18 (A5),

Start 16:

- Found in 1 of 680 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 609
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EmiRose\_12 (singleton),

Start 17:

- Found in 11 of 680 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 609
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Roary\_19 (A8),

Start 18:

- Found in 3 of 680 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 3 of 609
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gail\_22 (A14), Jeeves\_22 (A14), SororFago\_22 (A14),

Start 19:

- Found in 5 of 680 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 4 of 609
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IronMan\_25 (A2), Jaan\_26 (A2), Landor\_24 (A2), Phaded\_26 (A2), Tristan\_24 (A2),

Start 20:

- Found in 300 of 680 ( 44.1% ) of genes in pham
- Manual Annotations of this start: 272 of 609
- Called 99.3% of time when present
- Phage (with cluster) where this start called: ACFishhook\_24 (A3), AbbysRanger\_22 (A4), Abdiel\_22 (A4), Achebe\_22 (A4), Adzzy\_24 (A2), Aglet\_24 (A3), AgronaGT15\_24 (A3), Albee\_22 (A4), Alberto7\_23 (A4), Annyong\_22 (A4), Anubis\_26 (A3), Arturo\_21 (A4), AugsMagnumOpus\_26 (A3), AvatarAhPeg\_23 (A4), Avle17\_22 (A4), B1\_20 (A3), Baby16\_22 (A4), BabyRay\_22 (A3), Backyardigan\_22 (A4), Badger\_22 (A4), BangNhom\_22 (A4), Bartimeaus\_22 (A4), Beauxregard13\_24 (A3), BellusTerra\_22 (A4), Bigflo\_24 (A3), Blackmoor\_22 (A4), BlueBird\_23 (A3), Bombshell\_22 (A4), Bradman\_22 (A2), BreSam8\_24 (A3), Broseidon\_22 (A4), Bruiser\_22 (A4), BubbleTrouble\_22 (A4), Bugatti\_22 (A3), Bumblebee11\_22 (A4), Burger\_21 (A4), BuzzBuzz\_23 (A3), Bxz2\_23 (A3), Caelakin\_22 (A4), Calvinny\_25 (A3), Camperdownii\_21 (A4), Caraxes\_22 (A2), Caviar\_23 (A3), CentreCat\_22 (A4), Cerulean\_23 (A4), ChampagnePapi\_23 (A4), Chaph\_22 (A4), Che12\_25 (A2), Chupacabra\_22 (A10), Cici\_22 (A4), Cindaradix\_21 (A4), Citius\_22 (A4), Clarenza\_22 (A4), Cocoaberry\_22 (A4), Colbster\_24 (A3), Commander\_22 (A4), Connomayer\_22 (A4), Cullens\_24 (A3), DaHudson\_24 (A3), Daishi\_23 (A3), Datway\_22 (A4), Deano\_22 (A4), Dhanush\_22 (A4), Dieselweasel\_24 (A3), DirtyDunning\_22 (A4), DontArgue\_21 (A10), Drake94\_21 (A10), DropBear\_22 (A3), Druantia\_22 (A4), DustyMartin\_25 (A10), Eagle\_21 (A4), Eaglepride\_23 (A10), Eapen\_22 (A4), Edison31\_22 (A10), EpicPhail\_24 (A3), Eris\_22 (A4), Eros\_22 (A4), Eurydice\_22 (A4), Farber\_24 (A3), Fernando\_24 (A3), Florean\_22 (A4), Flux\_22 (A4), Fred313\_22 (A3), Funston\_22 (A4), Gadost\_22 (A4), Gemma\_24 (A3),

GingkoMaracino\_24 (A3), Giroux\_22 (A3), Goose\_22 (A10), Grif\_24 (A3), Groupthink\_25 (A3), Grub\_24 (A3), Grum1\_24 (A3), GtownJaz\_24 (A3), HamSlice\_21 (A4), Happiness\_22 (A4), HashRod\_25 (A3), HaveUMetTed\_25 (A3), Heathen\_22 (A3), HelDan\_22 (A3), Heliosoles\_24 (A3), Hercules11\_24 (A3), Holli\_22 (A4), Hookmount\_23 (A3), Houdini22\_22 (A4), Huxley\_22 (A4), ICleared\_22 (A4), Iceman\_23 (A4), Idleandcovert\_22 (A3), Iracema64\_23 (A4), Isca\_22 (A3), JF2\_22 (A3), JF4\_22 (A3), JHC117\_24 (A3), Jaykayelowell\_22 (A4), JenCasNa\_24 (A3), JeppNRM\_25 (A3), JetBlade\_22 (A4), Jobu08\_24 (A3), JoongJeon\_22 (A4), Jsquared\_22 (A2), KADY\_25 (A3), KFPoly\_22 (A4), Kachowdy\_22 (A3), Kalb97\_25 (A3), Kalnoky\_25 (A3), Kampy\_22 (A4), Katalie136\_22 (A4), Kingmustik0402\_22 (A4), KittenMittens\_21 (A10), Koan\_21 (A4), Koduck\_23 (A2), Koreni\_21 (A4), Kratark\_22 (A4), Kremtemulon\_22 (A4), Kristoff\_23 (A10), Kyee\_22 (A4), L5\_23 (A2), LBerry\_24 (A3), LHTSCC\_23 (A4), Lambert1\_23 (A3), LappelDuVide\_22 (A4), LarryKay\_24 (A3), Lemur\_22 (A4), LeoAvram\_22 (A4), Lilith\_24 (A3), LittleB\_22 (A4), LittleGuy\_22 (A4), LochMonster\_22 (A4), Lorenzo\_22 (A4), Louie6\_24 (A3), Iowa\_24 (A3), LugYA\_26 (A3), Lunsford\_23 (A4), MA5\_22 (A3), MK4\_22 (A3), MadMarie\_24 (A3), Mainiac\_24 (A3), MajorMajor\_22 (A2), Malinsilva\_26 (A3), Manu\_25 (A3), MarQuardt\_24 (A3), Marchesa\_22 (A3), Margo\_23 (A3), Marie\_24 (A3), Marius\_25 (A3), Maverick\_22 (A4), Maxo\_22 (A4), Mayonnaise\_22 (A4), Mazhar510\_22 (A4), Medusa\_22 (A4), MeeZee\_22 (A4), Melvin\_22 (A4), Methuselah\_23 (A3), Microwolf\_24 (A3), Millski\_22 (A4), Miramae\_22 (A4), Misomonster\_26 (A3), MoneyMay\_24 (A3), Morpher26\_22 (A4), Morrow\_22 (A4), MuchMore\_26 (A3), Mundrea\_22 (A4), Nebs\_22 (A4), Noella\_23 (A3), Noelle\_22 (A4), Norbert\_22 (A3), NorthStar\_22 (A4), NotAPhaseMom\_22 (A4), Nyxis\_22 (A4), OKCentral2016\_22 (A10), OKaNui\_23 (A4), Obama12\_23 (A4), Odin\_22 (A2), Ohfah\_22 (A4), OlanP\_24 (A3), Ollie\_24 (A3), P28Green\_24 (A3), PGHhamlin\_26 (A3), Palestino\_22 (A4), Panamaxus\_22 (A3), Pawn\_24 (A3), PeaceMeal1\_21 (A10), Peaches\_22 (A4), Pembroke\_24 (A3), Penny1\_24 (A3), Perplexer\_22 (A4), PeterPeter\_22 (A4), PetiteSangsue\_22 (A4), Ph8s\_24 (A2), Phacado\_22 (A4), Phantastic\_22 (A3), Felipe\_22 (A4), Phighter1804\_22 (A4), PhishRPhriends\_23 (A3), Phoebe\_24 (A3), Phontbonne\_22 (A4), Phoxy\_24 (A3), Phranny\_25 (A3), Pipcraft\_22 (A4), Pistachio\_23 (A3), Pocahontas\_23 (A3), Polymorphads\_22 (A4), Poompha\_21 (A10), Popcicle\_23 (A3), PotatoSplit\_25 (A3), Pumbaa\_22 (A4), Puppy\_23 (A3), PurpleHaze\_24 (A3), QuinnKiro\_22 (A3), Quokka\_21 (A2), Reba\_25 (A3), Rebeuca\_23 (A10), Relief\_22 (A4), ResDef\_23 (A3), RhynO\_23 (A10), Rockstar\_22 (A3), Romney\_22 (A4), Roosevelt\_22 (A4), Rosa24\_21 (A4), Rowdy\_25 (A10), Ruin\_22 (A4), Rummer\_24 (A3), Sabertooth\_22 (A4), Sabia\_24 (A3), Sabinator\_24 (A3), SaturnRing\_22 (A3), Scamp\_22 (A4), Scout\_22 (A3), SenorClean\_21 (A4), Severus\_21 (A10), Shaka\_22 (A4), Shapes\_25 (A10), SheldonCooper\_23 (A4), Shygu2\_22 (A4), Skipitt\_22 (A4), Snickers\_24 (A3), SoYo\_24 (A3), SoilDragon\_24 (A3), Soshari\_26 (A3), Sparxx\_22 (A4), Spike509\_24 (A3), Spino\_22 (A4), Stagni\_24 (A3), Stasia\_23 (A4), StepMih\_24 (A3), Stink\_23 (A4), Superchunk\_22 (A2), SwirlSquare\_25 (A2), TNguyen7\_22 (A3), Taquarus\_22 (A4), Taurus\_24 (A3), Texage\_22 (A3), Thanksgivukkah\_22 (A4), Tiffany\_24 (A3), TinaFeyge\_22 (A4), TinyPebbles\_24 (A3), Tinybot\_21 (A4), TiroTheta9\_22 (A4), Todacoro\_23 (A3), Topanga\_22 (A10), Trike\_20 (A10), TroyPia\_22 (A4), Twister\_22 (A10), TygerBlood\_22 (A4), Ulysses\_21 (A4), Veracruz\_22 (A3), Vix\_24 (A3), WalterMcMickey\_22 (A10), Wander\_22 (A4), Watson\_24 (A3), Wilbur\_22 (A4), Wile\_22 (A4), Wizard007\_22 (A4), Wooldri\_26 (A3), Xena\_22 (A4), YoSam321\_22 (A4), Zetzy\_23 (A3),

Start 21:

- Found in 314 of 680 ( 46.2% ) of genes in pham

- Manual Annotations of this start: 252 of 609
- Called 93.0% of time when present
- Phage (with cluster) where this start called: 20ES\_23 (A2), 40AC\_26 (A17), AN3\_23 (A2), AN9\_26 (A2), ANI8\_26 (A2), AbbyPaige\_25 (A2), Acolyte\_23 (A2), Agape74\_25 (A2), Aliter\_24 (A9), Alma\_24 (A9), Alsaber\_16 (BD3), Anaysia\_25 (A15), Aneem\_23 (A11), AnnaL29\_26 (A2), Anon\_23 (A15), Anselm\_23 (A2), Anthony\_22 (A20), ArcherNM\_25 (A2), Arissanae\_22 (A9), Artemis2UCLA\_26 (A6), Astro\_19 (A8), Attoomi\_12 (singleton), BABullseye\_26 (A6), BabyBack\_25 (A2), BabyJohn\_21 (A3), Bachome\_23 (A11), Bactobuster\_24 (A2), Baehexic\_24 (A2), Battleship\_26 (A15), Beemo\_24 (A9), BengiVuitton\_24 (A2), Benvolio\_23 (A2), BiancaTri92\_25 (A2), BlessJoy\_26 (A6), Blinn1\_26 (A6), Blue7\_26 (A6), BobSwaget\_26 (A2), BogosyJay\_24 (A9), Boohoo\_25 (A15), Bowtie\_23 (A11), Bud\_23 (A11), Buggy\_25 (A2), C3\_21 (A2), CRB1\_23 (A2), Candra\_26 (A6), Catalina\_24 (A9), Celery\_18 (BD3), Centaur\_25 (A2), Changeling\_26 (A2), Chargerpower\_23 (A), Charm\_23 (A9), Chartreuse\_26 (A6), ChipMunk\_25 (A2), Chiqui\_21 (A3), CloudWang3\_26 (A6), Colin\_27 (A2), Conan\_16 (BD3), Conquerage\_24 (A9), Cookiedough\_26 (A6), Crucio\_23 (A2), D29\_23 (A2), D32\_26 (A2), DBQu4n\_26 (A2), DaVinci\_26 (A6), Dalmatian\_23 (A2), Danforth\_18 (A8), Darrell\_25 (A9), DarthPhader\_24 (A12), DekHockey33\_25 (A15), Deloris\_24 (A2), Dexers\_14 (BD3), Dignity\_25 (A2), Dixon\_19 (A8), Dorothea\_26 (A6), Drake55\_25 (A2), DreamTeam1\_23 (A9), DroogsArmy\_23 (A7), DudeLittle\_23 (A2), Duplo\_26 (A2), EZMoney23\_27 (A2), EagleEye\_25 (A16), Ebony\_23 (A11), Echild\_23 (A2), EdogawaKiddo\_22 (A9), Eidsmoe\_24 (A9), ElGato\_16 (BD3), Elephantoon\_24 (A9), EmyBug\_24 (A9), Epsocamisio\_25 (A15), Equemioh13\_25 (A2), EricB\_26 (A6), Et2Brutus\_22 (A11), EvilGenius\_25 (A2), Expelliarmus\_18 (A8), ExplosioNervosa\_24 (A9), Fameo\_23 (A2), FatCactus\_21 (A20), Fayely\_24 (A9), Fibonacci\_23 (A11), FiringLine\_23 (A2), First\_0023 (A2), Flare16\_23 (A2), Flaverint\_23 (A11), FlyCatcher\_26 (A7), Garak\_27 (A6), GaugeLDP\_25 (A2), Georgie2\_24 (A2), Gilberta\_23 (A11), Gladiator\_26 (A6), Gratitude\_24 (A2), GreedyLawyer\_26 (A6), Groundhog\_18 (A8), Gruunaga\_26 (A6), HINdeR\_22 (A7), Hammer\_26 (A6), Hanray\_23 (A9), HarryHoudini\_25 (A2), Heffalump\_25 (A2), Helmet\_27 (A6), Herbertwm\_20 (A2), Hexamo\_26 (A6), Horex\_23 (A9), Hoot\_26 (A6), HortumSL17\_24 (A9), Hutc2\_23 (A11), Indra\_26 (A6), Insomnia\_23 (A11), Isiphiwo\_26 (A6), Iwokeuplikedis\_24 (A2), JSwag\_25 (A15), Jabith\_23 (A11), Jeffabunny\_26 (A6), Jerm\_25 (A2), JewelBug\_26 (A6), Jiawan\_23 (A9), Jordennis\_26 (A6), Joselito\_23 (A11), JoshKayV\_25 (A2), Journey13\_21 (A2), Kaine\_15 (BD3), Kalpine\_26 (A2), KatherineG\_25 (A15), Kazan\_26 (A6), Kerberos\_26 (A2), Keziacharles14\_22 (A9), Kimona\_19 (A19), KingCyrus\_25 (A2), Kinmap\_22 (A21), Kipper29\_26 (A6), Koko\_26 (A6), LadyBird\_23 (A2), Larenn\_24 (A2), LastResort\_25 (A15), Leogania\_25 (A2), Leviathan\_25 (A2), LilTurb\_25 (A2), Lilbunny\_26 (A6), Lilleskat\_22 (A9), LionsBait\_24 (A2), Lokk\_26 (A2), LoneWolf\_24 (A9), Looper\_26 (A15), Loser\_26 (A2), Luchador\_24 (A14), Lucivia\_23 (A11), Lucyedi\_24 (A16), MaCh\_23 (A11), Mabel\_23 (A11), Malec\_24 (A2), Maminiaina\_24 (A9), McFly\_26 (A6), MiculUcigas\_23 (A2), Miko\_26 (A2), MinecraftSteve\_26 (A15), MissWhite\_23 (A2), Mulciber\_23 (A11), Munch\_23 (A11), MyraDee\_20 (A18), Myxus\_24 (A9), NaSiaTalie\_23 (A2), Naji\_26 (A2), NearlyHeadless\_19 (A8), Nebulosus\_25 (A15), Nedarya\_24 (A15), Neeharika16\_26 (A6), Newrala\_26 (A6), NicoleTera\_27 (A2), NothingSpecial\_25 (A2), Onglai\_23 (A9), Oofda\_26 (A15), Orange\_23 (A11), PP\_32 (A7), PackMan\_24 (A9), PainterBoy\_24 (A16), Pavo\_16 (BD3), Petersenfast\_22 (A11), Phaeder\_24 (A9), Pharaoh\_23 (A12), Phillis\_19 (A8), Phonnegut\_24 (A9), Pioneer\_24 (A9), Piro94\_24 (A2), Pmask\_26 (A6), Polyphemus\_25 (A6), Pomar16\_26 (A2), Power\_23 (A2), Priamo\_26 (A6), Priya\_24 (A9), Provolone\_16 (BD3), Pukovnik\_25 (A2), Qobbit\_24 (A9), QueenB2\_23 (A2), QueenBeesly\_23 (A2), Rachaly\_26 (A2), Rahalelujah\_22 (A9), ReMo\_25 (A15),

RedRock\_26 (A2), Refuge\_26 (A12), Remus\_25 (A15), Retro23\_23 (A2), Rifter\_26 (A6), Roksolana\_26 (A6), Rosalind\_25 (A15), RyeScarlet\_25 (A9), Sachima\_22 (A9), Saftant\_15 (BD3), Saintus\_19 (A8), Salz\_23 (A11), Scherzo\_24 (A9), SemperFi\_25 (A2), Serenity\_22 (A2), Sham4\_23 (A11), ShayRa\_26 (A15), SheaKeira\_23 (A9), Sheen\_24 (A7), Sknot\_24 (A2), Smeadley\_19 (A8), Smeagan\_25 (A2), SmellyB\_26 (A6), SnapTap\_23 (A2), Snape\_23 (A11), Soups\_25 (A15), Speedwell\_20 (BD3), Spouty\_24 (A9), StarStuff\_26 (A2), Steamy\_24 (A12), Stephig9\_19 (A8), Strosahl\_25 (A15), Sunhee\_21 (A14), SuperAwesome\_26 (A6), SuperCallie99\_26 (A6), SweetiePie\_23 (A2), Switzerland\_25 (A15), TarsusIV\_23 (A2), Temprado\_27 (A6), Terrific\_27 (A2), Timothy\_23 (A11), Timshel\_23 (A7), TinyTimmy\_23 (A11), TipsytheTRex\_22 (A2), Toaka\_22 (A9), Tomathan\_26 (A2), ToneTone\_24 (A6), Toro\_25 (A7), Travvers\_26 (A2), Trixie\_26 (A2), Trooper\_23 (A2), Tubs\_24 (A9), Tucker\_26 (A6), Turbido\_25 (A2), Ugenie5\_21 (A9), Updawg\_25 (A2), VA6\_23 (A2), VC3\_26 (A2), Vanisoa\_22 (A9), Vanseggelen\_19 (BD3), Verabelle\_16 (BD3), VohminGhazi\_26 (A6), Waits\_25 (A15), Warrior24\_26 (A15), WeiHuaDA\_29 (A2), Whabigail7\_25 (A2), WideWale\_25 (A2), Wiks\_26 (A6), WunderPhul\_26 (A6), XianYue\_23 (A2), Yecey3\_23 (A9), Yokurt\_26 (A6), Yosif\_16 (BD3), Zaka\_26 (A6), Zimmer\_25 (A12), Zulu\_26 (A6),

#### Start 24:

- Found in 290 of 680 ( 42.6% ) of genes in pham
- Manual Annotations of this start: 2 of 609
- Called 0.7% of time when present
- Phage (with cluster) where this start called: Bonamassa\_19 (A5), Nemo27\_22 (A4),

#### Start 25:

- Found in 528 of 680 ( 77.6% ) of genes in pham
- Manual Annotations of this start: 1 of 609
- Called 0.2% of time when present
- Phage (with cluster) where this start called: Cintron\_22 (A4),

### Summary by clusters:

There are 23 clusters represented in this pham: singleton, A15, A14, A17, A16, A11, A10, A12, A19, A18, A3, A2, A5, A4, A7, A6, A9, A8, A, BD3, CA, A20, A21,

#### Info for manual annotations of cluster A:

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

#### Info for manual annotations of cluster A10:

- Start number 20 was manually annotated 17 times for cluster A10.

#### Info for manual annotations of cluster A11:

- Start number 21 was manually annotated 24 times for cluster A11.

#### Info for manual annotations of cluster A12:

- Start number 21 was manually annotated 5 times for cluster A12.

#### Info for manual annotations of cluster A14:

- Start number 18 was manually annotated 3 times for cluster A14.
- Start number 21 was manually annotated 1 time for cluster A14.

#### Info for manual annotations of cluster A15:



- Start number 21 was manually annotated 21 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 21 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 21 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 21 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 19 was manually annotated 4 times for cluster A2.
- Start number 20 was manually annotated 7 times for cluster A2.
- Start number 21 was manually annotated 91 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 21 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 20 was manually annotated 113 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 20 was manually annotated 135 times for cluster A4.
- Start number 24 was manually annotated 1 time for cluster A4.
- Start number 25 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A5:

- Start number 3 was manually annotated 37 times for cluster A5.
- Start number 24 was manually annotated 1 time for cluster A5.

Info for manual annotations of cluster A6:

- Start number 21 was manually annotated 42 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 21 was manually annotated 5 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 17 was manually annotated 1 time for cluster A8.
- Start number 21 was manually annotated 10 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 21 was manually annotated 35 times for cluster A9.

Info for manual annotations of cluster BD3:

- Start number 21 was manually annotated 10 times for cluster BD3.

Info for manual annotations of cluster CA:

- Start number 2 was manually annotated 36 times for cluster CA.

**Gene Information:**

Gene: 20ES\_23 Start: 15114, Stop: 15710, Start Num: 21

Candidate Starts for 20ES\_23:

(Start: 21 @15114 has 252 MA's), (Start: 25 @15138 has 1 MA's), (28, 15159), (45, 15327), (51, 15399), (53, 15420), (58, 15468), (59, 15477), (67, 15513), (70, 15534), (74, 15567),

Gene: 40AC\_26 Start: 17135, Stop: 17728, Start Num: 21

Candidate Starts for 40AC\_26:

(Start: 21 @17135 has 252 MA's), (Start: 25 @17159 has 1 MA's), (28, 17180), (50, 17414), (58, 17486), (67, 17531), (80, 17639),

Gene: ACFishhook\_24 Start: 14628, Stop: 15224, Start Num: 20

Candidate Starts for ACFishhook\_24:

(Start: 20 @14628 has 272 MA's), (Start: 25 @14652 has 1 MA's), (28, 14673), (30, 14688), (44, 14799), (58, 14976), (68, 15030), (69, 15036), (74, 15081),

Gene: AN3\_23 Start: 15104, Stop: 15694, Start Num: 21

Candidate Starts for AN3\_23:

(Start: 21 @15104 has 252 MA's), (Start: 25 @15128 has 1 MA's), (28, 15149), (41, 15245), (45, 15317), (51, 15389), (53, 15410), (59, 15467), (65, 15497), (68, 15506), (70, 15524), (74, 15557), (80, 15611), (93, 15671),

Gene: AN9\_26 Start: 15076, Stop: 15669, Start Num: 21

Candidate Starts for AN9\_26:

(Start: 21 @15076 has 252 MA's), (Start: 25 @15100 has 1 MA's), (28, 15121), (39, 15205), (49, 15349), (58, 15424), (59, 15433), (68, 15472), (70, 15490),

Gene: ANI8\_26 Start: 15076, Stop: 15669, Start Num: 21

Candidate Starts for ANI8\_26:

(Start: 21 @15076 has 252 MA's), (Start: 25 @15100 has 1 MA's), (28, 15121), (39, 15205), (49, 15349), (58, 15424), (59, 15433), (68, 15472), (70, 15490),

Gene: AbbyPaige\_25 Start: 15596, Stop: 16186, Start Num: 21

Candidate Starts for AbbyPaige\_25:

(Start: 21 @15596 has 252 MA's), (Start: 25 @15620 has 1 MA's), (28, 15641), (45, 15809), (48, 15872), (51, 15881), (58, 15950), (59, 15959), (65, 15989), (70, 16016), (74, 16049), (80, 16103),

Gene: AbbysRanger\_22 Start: 14414, Stop: 15001, Start Num: 20

Candidate Starts for AbbysRanger\_22:

(Start: 20 @14414 has 272 MA's), (Start: 24 @14435 has 2 MA's), (Start: 25 @14438 has 1 MA's), (30, 14474), (44, 14591), (70, 14837), (74, 14870), (77, 14900),

Gene: Abdiel\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Abdiel\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Achebe\_22 Start: 14390, Stop: 14977, Start Num: 20

Candidate Starts for Achebe\_22:

(Start: 20 @14390 has 272 MA's), (Start: 24 @14411 has 2 MA's), (Start: 25 @14414 has 1 MA's), (30, 14450), (44, 14567), (57, 14735), (70, 14813), (74, 14846), (77, 14876),

Gene: Acolyte\_23 Start: 15244, Stop: 15834, Start Num: 21

Candidate Starts for Acolyte\_23:

(Start: 21 @15244 has 252 MA's), (Start: 25 @15268 has 1 MA's), (28, 15289), (50, 15523), (58, 15595), (59, 15604), (68, 15643), (80, 15748), (94, 15817),

Gene: Adzzy\_24 Start: 13833, Stop: 14426, Start Num: 20

Candidate Starts for Adzzy\_24:

(Start: 20 @13833 has 272 MA's), (Start: 24 @13854 has 2 MA's), (Start: 25 @13857 has 1 MA's), (28, 13878), (48, 14106), (58, 14184), (59, 14193), (65, 14223), (67, 14229), (70, 14250), (80, 14337),

Gene: Agape74\_25 Start: 15572, Stop: 16162, Start Num: 21

Candidate Starts for Agape74\_25:

(5, 15359), (Start: 21 @15572 has 252 MA's), (Start: 25 @15596 has 1 MA's), (28, 15617), (45, 15785), (48, 15848), (51, 15857), (58, 15926), (59, 15935), (65, 15965), (70, 15992), (74, 16025), (80, 16079),

Gene: AgentM\_19 Start: 13583, Stop: 14410, Start Num: 3

Candidate Starts for AgentM\_19:

(Start: 3 @13583 has 37 MA's), (7, 13712), (Start: 24 @13844 has 2 MA's), (26, 13850), (29, 13883), (32, 13916), (37, 13946), (44, 14006), (50, 14111), (58, 14183), (69, 14240), (84, 14360),

Gene: Aglet\_24 Start: 14474, Stop: 15070, Start Num: 20

Candidate Starts for Aglet\_24:

(Start: 20 @14474 has 272 MA's), (Start: 25 @14498 has 1 MA's), (28, 14519), (30, 14534), (44, 14645), (58, 14822), (69, 14882), (74, 14927),

Gene: AgronaGT15\_24 Start: 14381, Stop: 14977, Start Num: 20

Candidate Starts for AgronaGT15\_24:

(Start: 20 @14381 has 272 MA's), (Start: 25 @14405 has 1 MA's), (28, 14426), (30, 14441), (44, 14552), (58, 14729), (69, 14789), (74, 14834),

Gene: Airmid\_19 Start: 13347, Stop: 14177, Start Num: 3

Candidate Starts for Airmid\_19:

(Start: 3 @13347 has 37 MA's), (7, 13476), (12, 13530), (Start: 24 @13608 has 2 MA's), (26, 13614), (28, 13641), (31, 13674), (32, 13680), (34, 13686), (37, 13713), (44, 13773), (50, 13878), (58, 13950), (59, 13959), (67, 13998), (69, 14007), (84, 14127),

Gene: Alatin\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Alatin\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Albee\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Albee\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Alberto7\_23 Start: 14690, Stop: 15280, Start Num: 20

Candidate Starts for Alberto7\_23:

(Start: 20 @14690 has 272 MA's), (Start: 24 @14711 has 2 MA's), (Start: 25 @14714 has 1 MA's), (44, 14861), (67, 15086), (74, 15140), (77, 15170),

Gene: Aliter\_24 Start: 15828, Stop: 16424, Start Num: 21

Candidate Starts for Aliter\_24:

(Start: 21 @15828 has 252 MA's), (Start: 25 @15852 has 1 MA's), (28, 15873), (59, 16191), (74, 16284), (93, 16398), (94, 16407),

Gene: Alma\_24 Start: 15907, Stop: 16503, Start Num: 21

Candidate Starts for Alma\_24:

(Start: 21 @15907 has 252 MA's), (Start: 25 @15931 has 1 MA's), (28, 15952), (29, 15958), (59, 16270), (68, 16312), (74, 16363), (86, 16450), (93, 16477), (94, 16486),

Gene: Alpacados\_17 Start: 10308, Stop: 11171, Start Num: 2

Candidate Starts for Alpacados\_17:

(1, 10245), (Start: 2 @10308 has 36 MA's), (28, 10614), (48, 10866), (50, 10872), (57, 10935), (59, 10953), (67, 10995), (80, 11103),

Gene: Alsaber\_16 Start: 10156, Stop: 10719, Start Num: 21

Candidate Starts for Alsaber\_16:

(Start: 21 @10156 has 252 MA's), (48, 10390), (69, 10528), (83, 10645),

Gene: Anaysia\_25 Start: 14232, Stop: 14834, Start Num: 21

Candidate Starts for Anaysia\_25:

(Start: 21 @14232 has 252 MA's), (Start: 24 @14253 has 2 MA's), (27, 14268), (28, 14277), (44, 14406), (45, 14442),

Gene: Aneem\_23 Start: 15633, Stop: 16253, Start Num: 21

Candidate Starts for Aneem\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: AngryOrchard\_17 Start: 10291, Stop: 11154, Start Num: 2

Candidate Starts for AngryOrchard\_17:

(1, 10228), (Start: 2 @10291 has 36 MA's), (22, 10546), (28, 10597), (48, 10849), (50, 10855), (57, 10918), (59, 10936), (67, 10978), (80, 11086),

Gene: AnnaL29\_26 Start: 16955, Stop: 17551, Start Num: 21

Candidate Starts for AnnaL29\_26:

(Start: 21 @16955 has 252 MA's), (Start: 25 @16979 has 1 MA's), (28, 17000), (45, 17165), (48, 17228), (58, 17306), (59, 17315), (68, 17354), (70, 17372), (80, 17459),

Gene: Annyong\_22 Start: 14389, Stop: 14979, Start Num: 20

Candidate Starts for Annyong\_22:

(Start: 20 @14389 has 272 MA's), (Start: 24 @14410 has 2 MA's), (Start: 25 @14413 has 1 MA's), (44, 14560), (67, 14785), (74, 14839), (77, 14869),

Gene: Anon\_23 Start: 14538, Stop: 15125, Start Num: 21

Candidate Starts for Anon\_23:

(Start: 21 @14538 has 252 MA's), (Start: 24 @14559 has 2 MA's), (Start: 25 @14562 has 1 MA's), (28, 14583), (44, 14712), (50, 14817), (89, 15084),

Gene: Anselm\_23 Start: 15205, Stop: 15789, Start Num: 21

Candidate Starts for Anselm\_23:

(Start: 21 @15205 has 252 MA's), (Start: 25 @15229 has 1 MA's), (28, 15250), (58, 15559), (59, 15568), (65, 15598), (70, 15625), (74, 15658), (80, 15712),

Gene: Anthony\_22 Start: 13235, Stop: 13828, Start Num: 21

Candidate Starts for Anthony\_22:

(Start: 21 @13235 has 252 MA's), (Start: 24 @13256 has 2 MA's), (Start: 25 @13259 has 1 MA's), (50, 13514), (58, 13586), (61, 13613), (74, 13688), (80, 13742), (94, 13811), (95, 13817),

Gene: Anubis\_26 Start: 14359, Stop: 14955, Start Num: 20

Candidate Starts for Anubis\_26:

(Start: 20 @14359 has 272 MA's), (Start: 25 @14383 has 1 MA's), (28, 14404), (30, 14419), (44, 14530), (58, 14707), (69, 14767), (74, 14812),

Gene: AppleCloud\_16 Start: 10031, Stop: 10888, Start Num: 2

Candidate Starts for AppleCloud\_16:

(1, 9968), (Start: 2 @10031 has 36 MA's), (15, 10253), (28, 10337), (48, 10583), (50, 10589), (57, 10652), (59, 10670), (67, 10712), (80, 10820),

Gene: Aragog\_19 Start: 13613, Stop: 14440, Start Num: 3

Candidate Starts for Aragog\_19:

(Start: 3 @13613 has 37 MA's), (7, 13742), (Start: 24 @13874 has 2 MA's), (26, 13880), (29, 13913), (32, 13946), (37, 13976), (44, 14036), (50, 14141), (58, 14213), (69, 14270), (84, 14390),

Gene: ArcherNM\_25 Start: 16899, Stop: 17492, Start Num: 21

Candidate Starts for ArcherNM\_25:

(Start: 21 @16899 has 252 MA's), (Start: 24 @16920 has 2 MA's), (Start: 25 @16923 has 1 MA's), (28, 16944), (48, 17172), (58, 17250), (59, 17259), (65, 17289), (68, 17298), (80, 17403), (94, 17472),

Gene: Archetta\_19 Start: 13326, Stop: 14153, Start Num: 3

Candidate Starts for Archetta\_19:

(Start: 3 @13326 has 37 MA's), (7, 13455), (Start: 24 @13587 has 2 MA's), (26, 13593), (29, 13626), (32, 13659), (37, 13689), (44, 13749), (50, 13854), (58, 13926), (69, 13983), (84, 14103),

Gene: Arissanae\_22 Start: 13995, Stop: 14591, Start Num: 21

Candidate Starts for Arissanae\_22:

(Start: 21 @13995 has 252 MA's), (Start: 25 @14019 has 1 MA's), (28, 14040), (29, 14046), (50, 14277), (65, 14391), (67, 14397), (74, 14451), (93, 14565), (94, 14574),

Gene: Artemis2UCLA\_26 Start: 15093, Stop: 15695, Start Num: 21

Candidate Starts for Artemis2UCLA\_26:

(Start: 21 @15093 has 252 MA's), (Start: 25 @15117 has 1 MA's), (43, 15246), (44, 15270), (59, 15456), (67, 15492), (69, 15501), (70, 15513), (76, 15570),

Gene: Arturo\_21 Start: 14499, Stop: 15089, Start Num: 20

Candidate Starts for Arturo\_21:

(Start: 20 @14499 has 272 MA's), (Start: 24 @14520 has 2 MA's), (Start: 25 @14523 has 1 MA's), (44, 14670), (67, 14895), (74, 14949), (77, 14979),

Gene: Astro\_19 Start: 13039, Stop: 13641, Start Num: 21

Candidate Starts for Astro\_19:

(Start: 17 @13033 has 1 MA's), (Start: 21 @13039 has 252 MA's), (44, 13213), (45, 13249), (46, 13285), (48, 13315), (59, 13402), (60, 13417), (68, 13444), (74, 13495), (77, 13525),

Gene: Attoomi\_12 Start: 7986, Stop: 8552, Start Num: 21

Candidate Starts for Attoomi\_12:

(Start: 21 @7986 has 252 MA's), (29, 8037), (48, 8229), (55, 8271), (63, 8346), (75, 8433), (76, 8439), (78, 8457), (88, 8511),

Gene: AugsMagnumOpus\_26 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for AugsMagnumOpus\_26:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),

Gene: AvatarAhPeg\_23 Start: 14678, Stop: 15265, Start Num: 20

Candidate Starts for AvatarAhPeg\_23:

(Start: 20 @14678 has 272 MA's), (Start: 24 @14699 has 2 MA's), (Start: 25 @14702 has 1 MA's), (30, 14738), (44, 14855), (70, 15101), (74, 15134), (77, 15164),

Gene: Avle17\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Avle17\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: B1\_20 Start: 13644, Stop: 14255, Start Num: 20

Candidate Starts for B1\_20:

(Start: 20 @13644 has 272 MA's), (Start: 24 @13665 has 2 MA's), (Start: 25 @13668 has 1 MA's), (28, 13689), (30, 13704), (44, 13821), (68, 14049),

Gene: BABullseye\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for BABullseye\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: Baby16\_22 Start: 14397, Stop: 14987, Start Num: 20

Candidate Starts for Baby16\_22:

(Start: 20 @14397 has 272 MA's), (Start: 24 @14418 has 2 MA's), (Start: 25 @14421 has 1 MA's), (44, 14568), (67, 14793), (74, 14847), (77, 14877),

Gene: BabyBack\_25 Start: 16719, Stop: 17306, Start Num: 21

Candidate Starts for BabyBack\_25:

(Start: 21 @16719 has 252 MA's), (Start: 25 @16743 has 1 MA's), (28, 16764), (33, 16806), (58, 17070), (68, 17118), (70, 17136), (80, 17223), (94, 17292),

Gene: BabyJohn\_21 Start: 14233, Stop: 14844, Start Num: 21

Candidate Starts for BabyJohn\_21:

(Start: 21 @14233 has 252 MA's), (Start: 24 @14254 has 2 MA's), (Start: 25 @14257 has 1 MA's), (28, 14278), (30, 14293), (44, 14410), (68, 14638), (74, 14689),

Gene: BabyRay\_22 Start: 14238, Stop: 14825, Start Num: 20

Candidate Starts for BabyRay\_22:

(13, 14199), (Start: 20 @14238 has 272 MA's), (Start: 24 @14259 has 2 MA's), (Start: 25 @14262 has 1 MA's), (28, 14283), (30, 14298), (44, 14409), (68, 14637), (74, 14688), (77, 14718), (80, 14742),

Gene: Bachome\_23 Start: 15630, Stop: 16244, Start Num: 21

Candidate Starts for Bachome\_23:

(Start: 21 @15630 has 252 MA's), (23, 15636), (28, 15675), (36, 15735), (45, 15843), (48, 15906), (50, 15912), (58, 15984), (74, 16083),

Gene: Backyardigan\_22 Start: 14402, Stop: 14989, Start Num: 20

Candidate Starts for Backyardigan\_22:

(Start: 20 @14402 has 272 MA's), (Start: 24 @14423 has 2 MA's), (Start: 25 @14426 has 1 MA's), (30, 14462), (44, 14579), (57, 14747), (70, 14825), (74, 14858), (77, 14888),

Gene: Bactobuster\_24 Start: 16847, Stop: 17437, Start Num: 21

Candidate Starts for Bactobuster\_24:

(Start: 21 @16847 has 252 MA's), (Start: 25 @16871 has 1 MA's), (28, 16892), (48, 17120), (50, 17126), (59, 17207), (68, 17246), (80, 17351), (93, 17411),

Gene: Badger\_22 Start: 14391, Stop: 14978, Start Num: 20

Candidate Starts for Badger\_22:

(Start: 20 @14391 has 272 MA's), (Start: 24 @14412 has 2 MA's), (Start: 25 @14415 has 1 MA's), (30, 14451), (44, 14568), (57, 14736), (70, 14814), (74, 14847), (77, 14877),

Gene: Baehexic\_24 Start: 15611, Stop: 16201, Start Num: 21

Candidate Starts for Baehexic\_24:

(Start: 21 @15611 has 252 MA's), (Start: 25 @15635 has 1 MA's), (28, 15656), (48, 15887), (58, 15965), (59, 15974), (70, 16031), (80, 16118), (93, 16178),

Gene: BangNhom\_22 Start: 14700, Stop: 15290, Start Num: 20

Candidate Starts for BangNhom\_22:

(Start: 20 @14700 has 272 MA's), (Start: 24 @14721 has 2 MA's), (Start: 25 @14724 has 1 MA's), (44, 14871), (67, 15096), (74, 15150), (77, 15180),

Gene: Bartimeaus\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Bartimeaus\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Battleship\_26 Start: 14347, Stop: 14949, Start Num: 21

Candidate Starts for Battleship\_26:

(Start: 21 @14347 has 252 MA's), (Start: 24 @14368 has 2 MA's), (27, 14383), (28, 14392), (44, 14521), (45, 14557),

Gene: Beauxregard13\_24 Start: 14473, Stop: 15069, Start Num: 20

Candidate Starts for Beauxregard13\_24:

(Start: 20 @14473 has 272 MA's), (Start: 25 @14497 has 1 MA's), (28, 14518), (30, 14533), (44, 14644), (58, 14821), (69, 14881), (74, 14926),

Gene: Beemo\_24 Start: 15934, Stop: 16530, Start Num: 21

Candidate Starts for Beemo\_24:

(Start: 21 @15934 has 252 MA's), (Start: 25 @15958 has 1 MA's), (28, 15979), (33, 16021), (59, 16297), (68, 16339), (74, 16390), (93, 16504), (94, 16513),

Gene: Belenaria\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Belenaria\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: BellusTerra\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for BellusTerra\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Benedict\_19 Start: 13350, Stop: 14180, Start Num: 3

Candidate Starts for Benedict\_19:

(Start: 3 @13350 has 37 MA's), (7, 13479), (12, 13533), (Start: 24 @13611 has 2 MA's), (26, 13617), (28, 13644), (31, 13677), (32, 13683), (34, 13689), (37, 13716), (44, 13776), (50, 13881), (58, 13953), (59, 13962), (67, 14001), (69, 14010), (84, 14130),

Gene: BengiVuitton\_24 Start: 15520, Stop: 16110, Start Num: 21

Candidate Starts for BengiVuitton\_24:

(Start: 21 @15520 has 252 MA's), (Start: 25 @15544 has 1 MA's), (28, 15565), (58, 15871), (59, 15880), (65, 15910), (70, 15937), (74, 15970), (80, 16024),

Gene: Benvolio\_23 Start: 15194, Stop: 15787, Start Num: 21

Candidate Starts for Benvolio\_23:

(Start: 21 @15194 has 252 MA's), (Start: 25 @15218 has 1 MA's), (28, 15239), (45, 15407), (48, 15470), (51, 15479), (59, 15557), (65, 15587), (70, 15614), (74, 15647),

Gene: BiancaTri92\_25 Start: 16885, Stop: 17475, Start Num: 21

Candidate Starts for BiancaTri92\_25:

(Start: 21 @16885 has 252 MA's), (Start: 25 @16909 has 1 MA's), (28, 16930), (45, 17095), (48, 17158), (51, 17167), (59, 17245), (68, 17284), (70, 17302), (74, 17335), (80, 17389), (93, 17449), (94, 17458),

Gene: Bigflo\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for Bigflo\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Blackmoor\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Blackmoor\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: BlessJoy\_26 Start: 15191, Stop: 15793, Start Num: 21

Candidate Starts for BlessJoy\_26:

(Start: 21 @15191 has 252 MA's), (Start: 25 @15215 has 1 MA's), (43, 15344), (44, 15368), (45, 15404), (59, 15554), (67, 15590), (69, 15599), (70, 15611), (76, 15668),

Gene: Blinn1\_26 Start: 15249, Stop: 15851, Start Num: 21

Candidate Starts for Blinn1\_26:

(Start: 21 @15249 has 252 MA's), (Start: 25 @15273 has 1 MA's), (44, 15426), (59, 15612), (67, 15648), (69, 15657), (70, 15669), (76, 15726),

Gene: Blue7\_26 Start: 15183, Stop: 15785, Start Num: 21

Candidate Starts for Blue7\_26:

(Start: 21 @15183 has 252 MA's), (Start: 25 @15207 has 1 MA's), (43, 15336), (44, 15360), (59, 15546), (67, 15582), (69, 15591), (70, 15603), (76, 15660),

Gene: BlueBird\_23 Start: 13992, Stop: 14576, Start Num: 20

Candidate Starts for BlueBird\_23:

(13, 13953), (Start: 20 @13992 has 272 MA's), (Start: 24 @14013 has 2 MA's), (Start: 25 @14016 has 1 MA's), (28, 14037), (30, 14052), (44, 14163), (46, 14235), (68, 14391), (74, 14442), (77, 14472), (80, 14496),



Gene: Bluefalcon\_18 Start: 13583, Stop: 14410, Start Num: 3

Candidate Starts for Bluefalcon\_18:

(Start: 3 @13583 has 37 MA's), (7, 13712), (Start: 24 @13844 has 2 MA's), (26, 13850), (29, 13883), (32, 13916), (37, 13946), (44, 14006), (50, 14111), (58, 14183), (69, 14240), (84, 14360),

Gene: BobSwaget\_26 Start: 16738, Stop: 17319, Start Num: 21

Candidate Starts for BobSwaget\_26:

(Start: 21 @16738 has 252 MA's), (Start: 25 @16762 has 1 MA's), (28, 16783), (33, 16825), (48, 17011), (58, 17089), (59, 17098), (68, 17137), (80, 17242), (93, 17302),

Gene: BobbyDazzler\_18 Start: 10417, Stop: 11280, Start Num: 2

Candidate Starts for BobbyDazzler\_18:

(1, 10354), (Start: 2 @10417 has 36 MA's), (28, 10723), (48, 10975), (50, 10981), (57, 11044), (59, 11062), (67, 11104), (80, 11212),

Gene: BogosyJay\_24 Start: 15651, Stop: 16247, Start Num: 21

Candidate Starts for BogosyJay\_24:

(Start: 21 @15651 has 252 MA's), (Start: 25 @15675 has 1 MA's), (59, 16014), (68, 16056), (69, 16062), (74, 16107),

Gene: Bombshell\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Bombshell\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Bonamassa\_19 Start: 13769, Stop: 14335, Start Num: 24

Candidate Starts for Bonamassa\_19:

(Start: 3 @13508 has 37 MA's), (7, 13637), (Start: 24 @13769 has 2 MA's), (26, 13775), (29, 13808), (32, 13841), (37, 13871), (44, 13931), (50, 14036), (58, 14108), (69, 14165), (84, 14285),

Gene: Bonanza\_18 Start: 10346, Stop: 11209, Start Num: 2

Candidate Starts for Bonanza\_18:

(1, 10283), (Start: 2 @10346 has 36 MA's), (28, 10652), (48, 10904), (50, 10910), (57, 10973), (59, 10991), (67, 11033), (80, 11141),

Gene: Boohoo\_25 Start: 14232, Stop: 14834, Start Num: 21

Candidate Starts for Boohoo\_25:

(Start: 21 @14232 has 252 MA's), (Start: 24 @14253 has 2 MA's), (27, 14268), (28, 14277), (44, 14406), (45, 14442),

Gene: Bowtie\_23 Start: 15633, Stop: 16253, Start Num: 21

Candidate Starts for Bowtie\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: Bradman\_22 Start: 14011, Stop: 14601, Start Num: 20

Candidate Starts for Bradman\_22:

(Start: 20 @14011 has 272 MA's), (Start: 25 @14035 has 1 MA's), (28, 14056), (33, 14098), (48, 14284), (58, 14362), (59, 14371), (65, 14401), (68, 14410), (70, 14428),

Gene: Bradshaw\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Bradshaw\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: BreSam8\_24 Start: 14466, Stop: 15062, Start Num: 20

Candidate Starts for BreSam8\_24:

(Start: 20 @14466 has 272 MA's), (Start: 25 @14490 has 1 MA's), (28, 14511), (30, 14526), (44, 14637), (58, 14814), (69, 14874), (74, 14919),

Gene: Broseidon\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Broseidon\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Bruiser\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Bruiser\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Bryce\_18 Start: 10346, Stop: 11209, Start Num: 2

Candidate Starts for Bryce\_18:

(1, 10283), (Start: 2 @10346 has 36 MA's), (28, 10652), (48, 10904), (50, 10910), (57, 10973), (59, 10991), (67, 11033), (80, 11141),

Gene: BubbleTrouble\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for BubbleTrouble\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Bud\_23 Start: 15639, Stop: 16259, Start Num: 21

Candidate Starts for Bud\_23:

(Start: 21 @15639 has 252 MA's), (23, 15645), (28, 15684), (36, 15744), (45, 15852), (48, 15915), (50, 15921), (58, 15993), (74, 16092),

Gene: Bugatti\_22 Start: 13992, Stop: 14576, Start Num: 20

Candidate Starts for Bugatti\_22:

(13, 13953), (Start: 20 @13992 has 272 MA's), (Start: 24 @14013 has 2 MA's), (Start: 25 @14016 has 1 MA's), (28, 14037), (30, 14052), (44, 14163), (46, 14235), (68, 14391), (74, 14442), (77, 14472), (80, 14496),

Gene: Buggy\_25 Start: 15595, Stop: 16185, Start Num: 21

Candidate Starts for Buggy\_25:

(Start: 21 @15595 has 252 MA's), (Start: 25 @15619 has 1 MA's), (28, 15640), (45, 15808), (48, 15871), (51, 15880), (58, 15949), (59, 15958), (65, 15988), (70, 16015), (74, 16048), (80, 16102),

Gene: Bumblebee11\_22 Start: 14396, Stop: 14983, Start Num: 20

Candidate Starts for Bumblebee11\_22:

(Start: 20 @14396 has 272 MA's), (Start: 24 @14417 has 2 MA's), (Start: 25 @14420 has 1 MA's), (30, 14456), (44, 14573), (67, 14798), (70, 14819), (74, 14852), (77, 14882),

Gene: Burger\_21 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Burger\_21:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: BuzzBuzz\_23 Start: 14557, Stop: 15153, Start Num: 20

Candidate Starts for BuzzBuzz\_23:

(Start: 20 @14557 has 272 MA's), (Start: 25 @14581 has 1 MA's), (28, 14602), (30, 14617), (44, 14728), (58, 14905), (69, 14965), (74, 15010),

Gene: Bxz2\_23 Start: 14567, Stop: 15163, Start Num: 20

Candidate Starts for Bxz2\_23:

(Start: 20 @14567 has 272 MA's), (Start: 25 @14591 has 1 MA's), (28, 14612), (30, 14627), (44, 14738), (58, 14915), (69, 14975), (74, 15020),

Gene: C3\_21 Start: 15076, Stop: 15669, Start Num: 21

Candidate Starts for C3\_21:

(Start: 21 @15076 has 252 MA's), (Start: 25 @15100 has 1 MA's), (28, 15121), (39, 15205), (49, 15349), (58, 15424), (59, 15433), (68, 15472), (70, 15490),

Gene: CRB1\_23 Start: 15086, Stop: 15673, Start Num: 21

Candidate Starts for CRB1\_23:

(Start: 21 @15086 has 252 MA's), (Start: 25 @15110 has 1 MA's), (28, 15131), (45, 15296), (51, 15368), (53, 15389), (58, 15437), (59, 15446), (65, 15476), (70, 15503), (74, 15536), (80, 15590), (93, 15650),

Gene: Caelakin\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Caelakin\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Calvinny\_25 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Calvinny\_25:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: Camperdownii\_21 Start: 14007, Stop: 14597, Start Num: 20

Candidate Starts for Camperdownii\_21:

(Start: 20 @14007 has 272 MA's), (Start: 24 @14028 has 2 MA's), (Start: 25 @14031 has 1 MA's), (44, 14178), (67, 14403), (74, 14457), (77, 14487),

Gene: Candra\_26 Start: 15243, Stop: 15845, Start Num: 21

Candidate Starts for Candra\_26:

(Start: 21 @15243 has 252 MA's), (Start: 25 @15267 has 1 MA's), (43, 15396), (44, 15420), (59, 15606), (67, 15642), (69, 15651), (70, 15663), (76, 15720),

Gene: Caraxes\_22 Start: 13739, Stop: 14335, Start Num: 20

Candidate Starts for Caraxes\_22:

(Start: 20 @13739 has 272 MA's), (Start: 24 @13760 has 2 MA's), (Start: 25 @13763 has 1 MA's), (28, 13784), (48, 14012), (58, 14090), (59, 14099), (65, 14129), (67, 14135), (70, 14156), (80, 14243),

Gene: Catalina\_24 Start: 15901, Stop: 16497, Start Num: 21

Candidate Starts for Catalina\_24:

(Start: 21 @15901 has 252 MA's), (Start: 25 @15925 has 1 MA's), (28, 15946), (59, 16264), (74, 16357), (93, 16471), (94, 16480),

Gene: Caviar\_23 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Caviar\_23:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Celery\_18 Start: 10111, Stop: 10668, Start Num: 21

Candidate Starts for Celery\_18:

(Start: 21 @10111 has 252 MA's), (48, 10345), (69, 10483), (83, 10600),

Gene: Centaur\_25 Start: 15589, Stop: 16179, Start Num: 21

Candidate Starts for Centaur\_25:

(Start: 21 @15589 has 252 MA's), (Start: 25 @15613 has 1 MA's), (28, 15634), (30, 15649), (48, 15865), (51, 15874), (58, 15943), (59, 15952), (70, 16009), (80, 16096), (93, 16156),

Gene: CentreCat\_22 Start: 14389, Stop: 14979, Start Num: 20

Candidate Starts for CentreCat\_22:

(Start: 20 @14389 has 272 MA's), (Start: 24 @14410 has 2 MA's), (Start: 25 @14413 has 1 MA's), (44, 14560), (67, 14785), (74, 14839), (77, 14869),

Gene: Cerulean\_23 Start: 14701, Stop: 15291, Start Num: 20

Candidate Starts for Cerulean\_23:

(Start: 20 @14701 has 272 MA's), (Start: 24 @14722 has 2 MA's), (Start: 25 @14725 has 1 MA's), (44, 14872), (67, 15097), (74, 15151), (77, 15181),

Gene: Chadwick\_20 Start: 13318, Stop: 14148, Start Num: 3

Candidate Starts for Chadwick\_20:

(Start: 3 @13318 has 37 MA's), (7, 13447), (12, 13501), (Start: 24 @13579 has 2 MA's), (26, 13585), (31, 13645), (34, 13657), (37, 13684), (44, 13744), (50, 13849), (58, 13921), (59, 13930), (67, 13969), (69, 13978), (84, 14098),

Gene: ChampagnePapi\_23 Start: 14700, Stop: 15290, Start Num: 20

Candidate Starts for ChampagnePapi\_23:

(Start: 20 @14700 has 272 MA's), (Start: 24 @14721 has 2 MA's), (Start: 25 @14724 has 1 MA's), (44, 14871), (67, 15096), (74, 15150), (77, 15180),

Gene: Changeling\_26 Start: 16952, Stop: 17545, Start Num: 21

Candidate Starts for Changeling\_26:

(Start: 21 @16952 has 252 MA's), (Start: 24 @16973 has 2 MA's), (Start: 25 @16976 has 1 MA's), (28, 16997), (48, 17225), (58, 17303), (59, 17312), (65, 17342), (68, 17351), (80, 17456), (94, 17525),

Gene: Chaph\_22 Start: 14397, Stop: 14987, Start Num: 20

Candidate Starts for Chaph\_22:

(Start: 20 @14397 has 272 MA's), (Start: 24 @14418 has 2 MA's), (Start: 25 @14421 has 1 MA's), (44, 14568), (67, 14793), (74, 14847), (77, 14877),

Gene: Chargerpower\_23 Start: 14332, Stop: 14916, Start Num: 21

Candidate Starts for Chargerpower\_23:

(Start: 21 @14332 has 252 MA's), (Start: 25 @14356 has 1 MA's), (28, 14377), (48, 14608), (58, 14686), (61, 14710),

Gene: Charm\_23 Start: 14035, Stop: 14631, Start Num: 21

Candidate Starts for Charm\_23:

(Start: 21 @14035 has 252 MA's), (Start: 25 @14059 has 1 MA's), (28, 14080), (68, 14440), (69, 14446),

Gene: Chartreuse\_26 Start: 15156, Stop: 15758, Start Num: 21

Candidate Starts for Chartreuse\_26:

(Start: 21 @15156 has 252 MA's), (Start: 25 @15180 has 1 MA's), (44, 15333), (59, 15519), (67, 15555), (69, 15564), (70, 15576), (76, 15633),

Gene: Che12\_25 Start: 13999, Stop: 14595, Start Num: 20

Candidate Starts for Che12\_25:

(Start: 20 @13999 has 272 MA's), (Start: 24 @14020 has 2 MA's), (Start: 25 @14023 has 1 MA's), (28, 14044), (48, 14272), (58, 14350), (59, 14359), (65, 14389), (67, 14395), (70, 14416), (80, 14503),

Gene: ChipMunk\_25 Start: 15499, Stop: 16089, Start Num: 21

Candidate Starts for ChipMunk\_25:

(Start: 21 @15499 has 252 MA's), (Start: 25 @15523 has 1 MA's), (28, 15544), (45, 15712), (48, 15775), (51, 15784), (58, 15853), (59, 15862), (65, 15892), (68, 15901), (70, 15919),

Gene: Chiqui\_21 Start: 14233, Stop: 14844, Start Num: 21

Candidate Starts for Chiqui\_21:

(Start: 21 @14233 has 252 MA's), (Start: 24 @14254 has 2 MA's), (Start: 25 @14257 has 1 MA's), (28, 14278), (30, 14293), (44, 14410), (68, 14638), (74, 14689),

Gene: Chupacabra\_22 Start: 14194, Stop: 14790, Start Num: 20

Candidate Starts for Chupacabra\_22:

(13, 14155), (Start: 20 @14194 has 272 MA's), (Start: 24 @14215 has 2 MA's), (Start: 25 @14218 has 1 MA's), (30, 14254), (44, 14371), (68, 14599), (69, 14605), (74, 14650), (77, 14680),

Gene: Cici\_22 Start: 14387, Stop: 14974, Start Num: 20

Candidate Starts for Cici\_22:

(Start: 20 @14387 has 272 MA's), (Start: 24 @14408 has 2 MA's), (Start: 25 @14411 has 1 MA's), (30, 14447), (44, 14564), (67, 14789), (70, 14810), (74, 14843), (77, 14873),

Gene: Cindaradix\_21 Start: 14121, Stop: 14708, Start Num: 20

Candidate Starts for Cindaradix\_21:

(Start: 20 @14121 has 272 MA's), (Start: 24 @14142 has 2 MA's), (Start: 25 @14145 has 1 MA's), (30, 14181), (44, 14298), (70, 14544), (74, 14577), (77, 14607),

Gene: Cintron\_22 Start: 14460, Stop: 15026, Start Num: 25

Candidate Starts for Cintron\_22:

(Start: 20 @14436 has 272 MA's), (Start: 24 @14457 has 2 MA's), (Start: 25 @14460 has 1 MA's), (44, 14607), (67, 14832), (74, 14886), (77, 14916),

Gene: Citius\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Citius\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Clarenza\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Clarenza\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: CloudWang3\_26 Start: 15193, Stop: 15795, Start Num: 21

Candidate Starts for CloudWang3\_26:

(Start: 21 @15193 has 252 MA's), (Start: 25 @15217 has 1 MA's), (43, 15346), (44, 15370), (59, 15556), (67, 15592), (69, 15601), (70, 15613), (76, 15670),

Gene: Cocoaberry\_22 Start: 14392, Stop: 14982, Start Num: 20

Candidate Starts for Cocoaberry\_22:

(Start: 20 @14392 has 272 MA's), (Start: 24 @14413 has 2 MA's), (Start: 25 @14416 has 1 MA's), (44, 14563), (67, 14788), (74, 14842), (77, 14872),

Gene: Colbster\_24 Start: 14473, Stop: 15069, Start Num: 20

Candidate Starts for Colbster\_24:

(Start: 20 @14473 has 272 MA's), (Start: 25 @14497 has 1 MA's), (28, 14518), (30, 14533), (44, 14644), (58, 14821), (69, 14881), (74, 14926),

Gene: Colin\_27 Start: 16788, Stop: 17378, Start Num: 21

Candidate Starts for Colin\_27:

(Start: 21 @16788 has 252 MA's), (Start: 25 @16812 has 1 MA's), (28, 16833), (48, 17061), (58, 17139), (65, 17178), (68, 17187), (70, 17205), (80, 17292), (86, 17325),

Gene: Commander\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Commander\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Conan\_16 Start: 9863, Stop: 10438, Start Num: 21

Candidate Starts for Conan\_16:

(Start: 21 @9863 has 252 MA's), (48, 10097), (69, 10235), (83, 10352),

Gene: Connomayer\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Connomayer\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Conquerage\_24 Start: 15930, Stop: 16526, Start Num: 21

Candidate Starts for Conquerage\_24:

(Start: 21 @15930 has 252 MA's), (Start: 25 @15954 has 1 MA's), (28, 15975), (33, 16017), (59, 16293), (68, 16335), (74, 16386), (93, 16500), (94, 16509),

Gene: Conspiracy\_19 Start: 13333, Stop: 14160, Start Num: 3

Candidate Starts for Conspiracy\_19:

(Start: 3 @13333 has 37 MA's), (7, 13462), (Start: 24 @13594 has 2 MA's), (26, 13600), (29, 13633), (32, 13666), (37, 13696), (44, 13756), (50, 13861), (58, 13933), (69, 13990), (84, 14110),

Gene: Coog\_19 Start: 13476, Stop: 14303, Start Num: 3

Candidate Starts for Coog\_19:

(Start: 3 @13476 has 37 MA's), (7, 13605), (Start: 24 @13737 has 2 MA's), (26, 13743), (29, 13776), (32, 13809), (37, 13839), (44, 13899), (50, 14004), (58, 14076), (69, 14133), (84, 14253),

Gene: Cookiedough\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for Cookiedough\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: CosmicSans\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for CosmicSans\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Crucio\_23 Start: 15024, Stop: 15614, Start Num: 21

Candidate Starts for Crucio\_23:

(Start: 21 @15024 has 252 MA's), (Start: 25 @15048 has 1 MA's), (28, 15069), (43, 15174), (48, 15297), (58, 15375), (59, 15384), (68, 15423), (80, 15528), (93, 15588),

Gene: Cuco\_19 Start: 13507, Stop: 14334, Start Num: 3

Candidate Starts for Cuco\_19:

(Start: 3 @13507 has 37 MA's), (7, 13636), (Start: 24 @13768 has 2 MA's), (26, 13774), (29, 13807), (32, 13840), (37, 13870), (44, 13930), (50, 14035), (58, 14107), (69, 14164), (84, 14284),

Gene: Cullens\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for Cullens\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: D29\_23 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for D29\_23:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: D32\_26 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for D32\_26:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: DBQu4n\_26 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for DBQu4n\_26:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: DaHudson\_24 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for DaHudson\_24:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),

Gene: DaVinci\_26 Start: 15210, Stop: 15812, Start Num: 21

Candidate Starts for DaVinci\_26:

(Start: 21 @15210 has 252 MA's), (Start: 25 @15234 has 1 MA's), (44, 15387), (59, 15573), (67, 15609), (69, 15618), (70, 15630), (76, 15687),

Gene: Daishi\_23 Start: 13398, Stop: 13994, Start Num: 20

Candidate Starts for Daishi\_23:

(Start: 20 @13398 has 272 MA's), (Start: 25 @13422 has 1 MA's), (28, 13443), (30, 13458), (44, 13569), (58, 13746), (69, 13806), (74, 13851),

Gene: Dalmatian\_23 Start: 15171, Stop: 15755, Start Num: 21

Candidate Starts for Dalmatian\_23:

(Start: 21 @15171 has 252 MA's), (Start: 25 @15195 has 1 MA's), (28, 15216), (41, 15312), (58, 15525), (59, 15534), (65, 15564), (70, 15591), (74, 15624), (80, 15678),

Gene: Danforth\_18 Start: 13018, Stop: 13620, Start Num: 21

Candidate Starts for Danforth\_18:

(Start: 17 @13012 has 1 MA's), (Start: 21 @13018 has 252 MA's), (44, 13192), (45, 13228), (46, 13264), (48, 13294), (59, 13381), (60, 13396), (68, 13423), (74, 13474), (77, 13504),

Gene: Darrell\_25 Start: 16089, Stop: 16685, Start Num: 21

Candidate Starts for Darrell\_25:

(Start: 21 @16089 has 252 MA's), (Start: 25 @16113 has 1 MA's), (28, 16134), (29, 16140), (54, 16398), (58, 16440), (59, 16449), (74, 16542), (94, 16665),

Gene: DARTHPhader\_24 Start: 16058, Stop: 16654, Start Num: 21

Candidate Starts for DARTHPhader\_24:

(Start: 21 @16058 has 252 MA's), (Start: 25 @16082 has 1 MA's), (65, 16454), (68, 16463), (80, 16568),

Gene: Datway\_22 Start: 14402, Stop: 14989, Start Num: 20

Candidate Starts for Datway\_22:

(Start: 20 @14402 has 272 MA's), (Start: 24 @14423 has 2 MA's), (Start: 25 @14426 has 1 MA's), (30, 14462), (44, 14579), (57, 14747), (70, 14825), (74, 14858), (77, 14888),

Gene: Deano\_22 Start: 14396, Stop: 14986, Start Num: 20

Candidate Starts for Deano\_22:

(Start: 20 @14396 has 272 MA's), (Start: 24 @14417 has 2 MA's), (Start: 25 @14420 has 1 MA's), (44, 14567), (67, 14792), (74, 14846), (77, 14876),

Gene: DekHockey33\_25 Start: 14354, Stop: 14956, Start Num: 21

Candidate Starts for DekHockey33\_25:

(Start: 21 @14354 has 252 MA's), (Start: 24 @14375 has 2 MA's), (27, 14390), (28, 14399), (44, 14528), (45, 14564),

Gene: Deloris\_24 Start: 15520, Stop: 16110, Start Num: 21

Candidate Starts for Deloris\_24:

(Start: 21 @15520 has 252 MA's), (Start: 25 @15544 has 1 MA's), (28, 15565), (58, 15871), (59, 15880), (65, 15910), (70, 15937), (74, 15970), (80, 16024),

Gene: Dexers\_14 Start: 9859, Stop: 10422, Start Num: 21

Candidate Starts for Dexers\_14:

(Start: 21 @9859 has 252 MA's), (48, 10093), (69, 10231), (83, 10348),

Gene: Dhanush\_22 Start: 14391, Stop: 14981, Start Num: 20

Candidate Starts for Dhanush\_22:

(Start: 20 @14391 has 272 MA's), (Start: 24 @14412 has 2 MA's), (Start: 25 @14415 has 1 MA's), (44, 14562), (67, 14787), (74, 14841), (77, 14871),

Gene: Dieselweasel\_24 Start: 14474, Stop: 15070, Start Num: 20

Candidate Starts for Dieselweasel\_24:

(Start: 20 @14474 has 272 MA's), (Start: 25 @14498 has 1 MA's), (28, 14519), (30, 14534), (44, 14645), (58, 14822), (69, 14882), (74, 14927),

Gene: Dignity\_25 Start: 15540, Stop: 16130, Start Num: 21

Candidate Starts for Dignity\_25:



(Start: 21 @15540 has 252 MA's), (Start: 25 @15564 has 1 MA's), (28, 15585), (45, 15753), (48, 15816), (51, 15825), (58, 15894), (59, 15903), (65, 15933), (70, 15960), (74, 15993), (80, 16047),

Gene: Dinger\_18 Start: 10342, Stop: 11205, Start Num: 2

Candidate Starts for Dinger\_18:

(1, 10279), (Start: 2 @10342 has 36 MA's), (28, 10648), (48, 10900), (50, 10906), (52, 10912), (57, 10969), (59, 10987), (65, 11023), (67, 11029), (80, 11137),

Gene: DirtyDunning\_22 Start: 14384, Stop: 14974, Start Num: 20

Candidate Starts for DirtyDunning\_22:

(Start: 20 @14384 has 272 MA's), (Start: 24 @14405 has 2 MA's), (Start: 25 @14408 has 1 MA's), (44, 14555), (67, 14780), (74, 14834), (77, 14864),

Gene: Discoknowium\_19 Start: 13622, Stop: 14449, Start Num: 3

Candidate Starts for Discoknowium\_19:

(Start: 3 @13622 has 37 MA's), (7, 13751), (Start: 24 @13883 has 2 MA's), (26, 13889), (29, 13922), (32, 13955), (37, 13985), (44, 14045), (50, 14150), (58, 14222), (69, 14279), (84, 14399),

Gene: Dixon\_19 Start: 13037, Stop: 13639, Start Num: 21

Candidate Starts for Dixon\_19:

(Start: 17 @13031 has 1 MA's), (Start: 21 @13037 has 252 MA's), (44, 13211), (45, 13247), (46, 13283), (48, 13313), (59, 13400), (60, 13415), (68, 13442), (74, 13493), (77, 13523),

Gene: DontArgue\_21 Start: 12453, Stop: 13049, Start Num: 20

Candidate Starts for DontArgue\_21:

(Start: 20 @12453 has 272 MA's), (Start: 24 @12474 has 2 MA's), (Start: 25 @12477 has 1 MA's), (30, 12513), (44, 12630), (57, 12798), (69, 12864), (74, 12909), (77, 12939),

Gene: Dorothea\_26 Start: 15211, Stop: 15813, Start Num: 21

Candidate Starts for Dorothea\_26:

(Start: 21 @15211 has 252 MA's), (Start: 25 @15235 has 1 MA's), (44, 15388), (59, 15574), (67, 15610), (69, 15619), (70, 15631), (76, 15688),

Gene: Drake55\_25 Start: 15607, Stop: 16197, Start Num: 21

Candidate Starts for Drake55\_25:

(Start: 21 @15607 has 252 MA's), (Start: 25 @15631 has 1 MA's), (28, 15652), (30, 15667), (48, 15883), (58, 15961), (59, 15970), (70, 16027), (80, 16114), (93, 16174),

Gene: Drake94\_21 Start: 12286, Stop: 12882, Start Num: 20

Candidate Starts for Drake94\_21:

(Start: 20 @12286 has 272 MA's), (Start: 24 @12307 has 2 MA's), (Start: 25 @12310 has 1 MA's), (30, 12346), (44, 12463), (68, 12691), (69, 12697), (77, 12772),

Gene: DreamTeam1\_23 Start: 14035, Stop: 14631, Start Num: 21

Candidate Starts for DreamTeam1\_23:

(Start: 21 @14035 has 252 MA's), (Start: 25 @14059 has 1 MA's), (28, 14080), (68, 14440), (69, 14446),

Gene: DroogsArmy\_23 Start: 15777, Stop: 16364, Start Num: 21

Candidate Starts for DroogsArmy\_23:

(Start: 21 @15777 has 252 MA's), (Start: 24 @15798 has 2 MA's), (Start: 25 @15801 has 1 MA's), (44, 15954), (47, 16029), (67, 16179), (77, 16263),

Gene: DropBear\_22 Start: 14052, Stop: 14636, Start Num: 20

Candidate Starts for DropBear\_22:

(13, 14013), (Start: 20 @14052 has 272 MA's), (Start: 24 @14073 has 2 MA's), (Start: 25 @14076 has 1 MA's), (28, 14097), (30, 14112), (44, 14223), (46, 14295), (68, 14451), (74, 14502), (77, 14532), (80, 14556),

Gene: Druantia\_22 Start: 14389, Stop: 14979, Start Num: 20

Candidate Starts for Druantia\_22:

(Start: 20 @14389 has 272 MA's), (Start: 24 @14410 has 2 MA's), (Start: 25 @14413 has 1 MA's), (44, 14560), (67, 14785), (74, 14839), (77, 14869),

Gene: Dublin\_18 Start: 13475, Stop: 14302, Start Num: 3

Candidate Starts for Dublin\_18:

(Start: 3 @13475 has 37 MA's), (7, 13604), (Start: 24 @13736 has 2 MA's), (26, 13742), (29, 13775), (32, 13808), (37, 13838), (44, 13898), (50, 14003), (58, 14075), (69, 14132), (84, 14252),

Gene: DudeLittle\_23 Start: 15173, Stop: 15757, Start Num: 21

Candidate Starts for DudeLittle\_23:

(Start: 21 @15173 has 252 MA's), (Start: 25 @15197 has 1 MA's), (28, 15218), (58, 15527), (59, 15536), (65, 15566), (70, 15593), (74, 15626), (80, 15680),

Gene: Duplo\_26 Start: 15026, Stop: 15619, Start Num: 21

Candidate Starts for Duplo\_26:

(Start: 21 @15026 has 252 MA's), (Start: 25 @15050 has 1 MA's), (28, 15071), (39, 15155), (49, 15299), (58, 15374), (59, 15383), (68, 15422), (70, 15440),

Gene: DustyMartin\_25 Start: 14264, Stop: 14860, Start Num: 20

Candidate Starts for DustyMartin\_25:

(13, 14225), (Start: 20 @14264 has 272 MA's), (Start: 24 @14285 has 2 MA's), (Start: 25 @14288 has 1 MA's), (30, 14324), (44, 14441), (57, 14609), (69, 14675), (72, 14693), (77, 14750),

Gene: EZMoney23\_27 Start: 17079, Stop: 17669, Start Num: 21

Candidate Starts for EZMoney23\_27:

(Start: 21 @17079 has 252 MA's), (Start: 25 @17103 has 1 MA's), (28, 17124), (45, 17289), (48, 17352), (58, 17430), (59, 17439), (68, 17478), (80, 17583),

Gene: Eagle\_21 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Eagle\_21:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: EagleEye\_25 Start: 15328, Stop: 15921, Start Num: 21

Candidate Starts for EagleEye\_25:

(Start: 21 @15328 has 252 MA's), (Start: 25 @15352 has 1 MA's), (28, 15373), (53, 15631), (74, 15778), (86, 15865), (94, 15901),

Gene: Eaglepride\_23 Start: 14204, Stop: 14800, Start Num: 20

Candidate Starts for Eaglepride\_23:

(13, 14165), (Start: 20 @14204 has 272 MA's), (Start: 24 @14225 has 2 MA's), (Start: 25 @14228 has 1 MA's), (30, 14264), (44, 14381), (67, 14606), (69, 14615), (74, 14660), (77, 14690),

Gene: Eapen\_22 Start: 14387, Stop: 14977, Start Num: 20

Candidate Starts for Eapen\_22:

(Start: 20 @14387 has 272 MA's), (Start: 24 @14408 has 2 MA's), (Start: 25 @14411 has 1 MA's), (44, 14558), (67, 14783), (74, 14837), (77, 14867),

Gene: Ebony\_23 Start: 15682, Stop: 16296, Start Num: 21

Candidate Starts for Ebony\_23:

(Start: 21 @15682 has 252 MA's), (23, 15688), (28, 15727), (36, 15787), (45, 15895), (48, 15958), (50, 15964), (58, 16036), (74, 16135),

Gene: Echild\_23 Start: 15194, Stop: 15787, Start Num: 21

Candidate Starts for Echild\_23:

(Start: 21 @15194 has 252 MA's), (Start: 25 @15218 has 1 MA's), (28, 15239), (45, 15407), (48, 15470), (51, 15479), (59, 15557), (65, 15587), (70, 15614), (74, 15647),

Gene: Edison31\_22 Start: 14234, Stop: 14830, Start Num: 20

Candidate Starts for Edison31\_22:

(13, 14195), (Start: 20 @14234 has 272 MA's), (Start: 24 @14255 has 2 MA's), (Start: 25 @14258 has 1 MA's), (30, 14294), (44, 14411), (67, 14636), (69, 14645), (74, 14690), (77, 14720),

Gene: EdogawaKiddo\_22 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for EdogawaKiddo\_22:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (33, 15987), (59, 16263), (68, 16305), (74, 16356), (93, 16470), (94, 16479),

Gene: Eidsmoe\_24 Start: 15930, Stop: 16526, Start Num: 21

Candidate Starts for Eidsmoe\_24:

(Start: 21 @15930 has 252 MA's), (Start: 25 @15954 has 1 MA's), (28, 15975), (29, 15981), (59, 16293), (68, 16335), (74, 16386), (86, 16473), (93, 16500), (94, 16509),

Gene: ElGato\_16 Start: 9866, Stop: 10441, Start Num: 21

Candidate Starts for ElGato\_16:

(Start: 21 @9866 has 252 MA's), (48, 10100), (69, 10238), (83, 10355),

Gene: ElTiger69\_19 Start: 13348, Stop: 14178, Start Num: 3

Candidate Starts for ElTiger69\_19:

(Start: 3 @13348 has 37 MA's), (7, 13477), (12, 13531), (Start: 24 @13609 has 2 MA's), (26, 13615), (28, 13642), (31, 13675), (32, 13681), (34, 13687), (37, 13714), (44, 13774), (50, 13879), (58, 13951), (59, 13960), (67, 13999), (69, 14008), (84, 14128),

Gene: Elephantoon\_24 Start: 15518, Stop: 16114, Start Num: 21

Candidate Starts for Elephantoon\_24:

(Start: 21 @15518 has 252 MA's), (Start: 25 @15542 has 1 MA's), (28, 15563), (29, 15569), (59, 15878), (74, 15971), (94, 16094),

Gene: EmiRose\_12 Start: 8786, Stop: 9427, Start Num: 16

Candidate Starts for EmiRose\_12:

(Start: 16 @8786 has 1 MA's), (35, 8909), (54, 9107), (56, 9131), (66, 9200), (69, 9212), (73, 9233), (78, 9299), (79, 9305), (82, 9323), (87, 9353), (91, 9374),

Gene: EmyBug\_24 Start: 15930, Stop: 16526, Start Num: 21

Candidate Starts for EmyBug\_24:

(Start: 21 @15930 has 252 MA's), (Start: 25 @15954 has 1 MA's), (28, 15975), (29, 15981), (59, 16293), (68, 16335), (74, 16386), (86, 16473), (93, 16500), (94, 16509),

Gene: EpicPhail\_24 Start: 14473, Stop: 15069, Start Num: 20

Candidate Starts for EpicPhail\_24:

(Start: 20 @14473 has 272 MA's), (Start: 25 @14497 has 1 MA's), (28, 14518), (30, 14533), (44, 14644), (58, 14821), (69, 14881), (74, 14926),

Gene: Epsocamisio\_25 Start: 14232, Stop: 14834, Start Num: 21

Candidate Starts for Epsocamisio\_25:

(Start: 21 @14232 has 252 MA's), (Start: 24 @14253 has 2 MA's), (27, 14268), (28, 14277), (44, 14406), (45, 14442),

Gene: Equemioh13\_25 Start: 15592, Stop: 16182, Start Num: 21

Candidate Starts for Equemioh13\_25:

(Start: 21 @15592 has 252 MA's), (Start: 25 @15616 has 1 MA's), (28, 15637), (48, 15868), (58, 15946), (59, 15955), (70, 16012), (80, 16099), (93, 16159),

Gene: EricB\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for EricB\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: Erik\_18 Start: 10377, Stop: 11234, Start Num: 2

Candidate Starts for Erik\_18:

(1, 10314), (Start: 2 @10377 has 36 MA's), (9, 10518), (Start: 21 @10629 has 252 MA's), (28, 10683), (48, 10929), (50, 10935), (57, 10998), (59, 11016), (67, 11058), (80, 11166), (92, 11226),

Gene: Eris\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Eris\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Eros\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Eros\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Espica\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Espica\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Et2Brutus\_22 Start: 15636, Stop: 16256, Start Num: 21

Candidate Starts for Et2Brutus\_22:

(Start: 21 @15636 has 252 MA's), (23, 15642), (28, 15681), (36, 15741), (45, 15849), (48, 15912), (50, 15918), (58, 15990), (74, 16089),

Gene: Eurydice\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Eurydice\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: EvilGenius\_25 Start: 15508, Stop: 16098, Start Num: 21

Candidate Starts for EvilGenius\_25:

(Start: 21 @15508 has 252 MA's), (Start: 25 @15532 has 1 MA's), (28, 15553), (45, 15721), (48, 15784), (51, 15793), (58, 15862), (59, 15871), (65, 15901), (68, 15910), (70, 15928),

Gene: Expelliarmus\_18 Start: 13004, Stop: 13606, Start Num: 21

Candidate Starts for Expelliarmus\_18:

(Start: 17 @12998 has 1 MA's), (Start: 21 @13004 has 252 MA's), (44, 13178), (45, 13214), (46, 13250), (48, 13280), (59, 13367), (60, 13382), (68, 13409), (74, 13460), (77, 13490),

Gene: ExplosioNervosa\_24 Start: 15933, Stop: 16529, Start Num: 21

Candidate Starts for ExplosioNervosa\_24:

(Start: 21 @15933 has 252 MA's), (Start: 25 @15957 has 1 MA's), (28, 15978), (33, 16020), (59, 16296), (68, 16338), (74, 16389), (93, 16503), (94, 16512),

Gene: Fameo\_23 Start: 15099, Stop: 15683, Start Num: 21

Candidate Starts for Fameo\_23:

(Start: 21 @15099 has 252 MA's), (Start: 25 @15123 has 1 MA's), (28, 15144), (45, 15306), (58, 15447), (59, 15456), (65, 15486), (68, 15495), (70, 15513), (74, 15546), (80, 15600), (85, 15624), (93, 15660),

Gene: Farber\_24 Start: 14466, Stop: 15062, Start Num: 20

Candidate Starts for Farber\_24:

(Start: 20 @14466 has 272 MA's), (Start: 25 @14490 has 1 MA's), (28, 14511), (30, 14526), (44, 14637), (58, 14814), (69, 14874), (74, 14919),

Gene: FatCactus\_21 Start: 13165, Stop: 13758, Start Num: 21

Candidate Starts for FatCactus\_21:

(Start: 21 @13165 has 252 MA's), (Start: 24 @13186 has 2 MA's), (Start: 25 @13189 has 1 MA's), (50, 13444), (58, 13516), (74, 13618), (80, 13672),

Gene: Fayely\_24 Start: 15933, Stop: 16529, Start Num: 21

Candidate Starts for Fayely\_24:

(Start: 21 @15933 has 252 MA's), (Start: 25 @15957 has 1 MA's), (28, 15978), (59, 16296), (74, 16389), (93, 16503), (94, 16512),

Gene: Fernando\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for Fernando\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Fibonacci\_23 Start: 15636, Stop: 16250, Start Num: 21

Candidate Starts for Fibonacci\_23:

(Start: 21 @15636 has 252 MA's), (23, 15642), (28, 15681), (36, 15741), (45, 15849), (48, 15912), (50, 15918), (58, 15990), (74, 16089),

Gene: FiringLine\_23 Start: 15024, Stop: 15614, Start Num: 21

Candidate Starts for FiringLine\_23:

(Start: 21 @15024 has 252 MA's), (Start: 25 @15048 has 1 MA's), (28, 15069), (43, 15174), (48, 15297), (58, 15375), (59, 15384), (68, 15423), (72, 15447), (80, 15528), (93, 15588),

Gene: First\_0023 Start: 15114, Stop: 15710, Start Num: 21

Candidate Starts for First\_0023:

(Start: 21 @15114 has 252 MA's), (Start: 25 @15138 has 1 MA's), (28, 15159), (45, 15327), (51, 15399), (53, 15420), (58, 15468), (59, 15477), (67, 15513), (70, 15534), (74, 15567),

Gene: Flare16\_23 Start: 15150, Stop: 15740, Start Num: 21

Candidate Starts for Flare16\_23:

(Start: 21 @15150 has 252 MA's), (Start: 25 @15174 has 1 MA's), (28, 15195), (48, 15426), (58, 15504), (59, 15513), (70, 15570), (80, 15657), (93, 15717),

Gene: Flaverint\_23 Start: 15633, Stop: 16247, Start Num: 21

Candidate Starts for Flaverint\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: Florean\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Florean\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Flux\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Flux\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: FlyCatcher\_26 Start: 16066, Stop: 16650, Start Num: 21

Candidate Starts for FlyCatcher\_26:

(Start: 21 @16066 has 252 MA's), (Start: 24 @16087 has 2 MA's), (Start: 25 @16090 has 1 MA's), (28, 16111), (30, 16126), (44, 16237), (47, 16312), (77, 16546),

Gene: ForGetIt\_19 Start: 13358, Stop: 14185, Start Num: 3

Candidate Starts for ForGetIt\_19:

(Start: 3 @13358 has 37 MA's), (7, 13487), (Start: 24 @13619 has 2 MA's), (26, 13625), (29, 13658), (32, 13691), (37, 13721), (44, 13781), (50, 13886), (58, 13958), (69, 14015), (84, 14135),

Gene: Fred313\_22 Start: 13710, Stop: 14321, Start Num: 20

Candidate Starts for Fred313\_22:

(13, 13671), (Start: 20 @13710 has 272 MA's), (Start: 24 @13731 has 2 MA's), (Start: 25 @13734 has 1 MA's), (28, 13755), (30, 13770), (44, 13887), (68, 14115), (74, 14166), (80, 14220),

Gene: Funston\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Funston\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Gadost\_22 Start: 14392, Stop: 14982, Start Num: 20

Candidate Starts for Gadost\_22:

(Start: 20 @14392 has 272 MA's), (Start: 24 @14413 has 2 MA's), (Start: 25 @14416 has 1 MA's), (44, 14563), (67, 14788), (74, 14842), (77, 14872),

Gene: Gail\_22 Start: 14209, Stop: 14802, Start Num: 18

Candidate Starts for Gail\_22:

(Start: 18 @14209 has 3 MA's), (Start: 25 @14233 has 1 MA's), (28, 14254), (38, 14338), (48, 14485), (68, 14611), (69, 14617), (80, 14716),

Gene: Garak\_27 Start: 15205, Stop: 15807, Start Num: 21

Candidate Starts for Garak\_27:

(Start: 21 @15205 has 252 MA's), (Start: 25 @15229 has 1 MA's), (43, 15358), (44, 15382), (59, 15568), (67, 15604), (69, 15613), (70, 15625), (76, 15682),

Gene: GaugeLDP\_25 Start: 16391, Stop: 16981, Start Num: 21

Candidate Starts for GaugeLDP\_25:

(4, 16178), (Start: 21 @16391 has 252 MA's), (Start: 25 @16415 has 1 MA's), (28, 16436), (33, 16478), (48, 16664), (58, 16742), (59, 16751), (70, 16808), (80, 16895),

Gene: Gemma\_24 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Gemma\_24:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: George\_18 Start: 13508, Stop: 14335, Start Num: 3

Candidate Starts for George\_18:

(Start: 3 @13508 has 37 MA's), (7, 13637), (Start: 24 @13769 has 2 MA's), (26, 13775), (29, 13808), (32, 13841), (37, 13871), (44, 13931), (50, 14036), (58, 14108), (69, 14165), (84, 14285),

Gene: Georgie2\_24 Start: 15025, Stop: 15606, Start Num: 21

Candidate Starts for Georgie2\_24:

(Start: 21 @15025 has 252 MA's), (Start: 25 @15049 has 1 MA's), (28, 15070), (43, 15175), (48, 15298), (58, 15376), (59, 15385), (68, 15424), (80, 15529), (93, 15589),

Gene: Ghouboy\_19 Start: 13583, Stop: 14443, Start Num: 3

Candidate Starts for Ghouboy\_19:

(Start: 3 @13583 has 37 MA's), (7, 13712), (14, 13799), (Start: 24 @13853 has 2 MA's), (29, 13892), (32, 13931), (37, 13979), (43, 14015), (44, 14039), (50, 14144), (58, 14216), (76, 14342), (84, 14393),

Gene: Gilberta\_23 Start: 15630, Stop: 16244, Start Num: 21

Candidate Starts for Gilberta\_23:

(Start: 21 @15630 has 252 MA's), (23, 15636), (28, 15675), (36, 15735), (45, 15843), (48, 15906), (50, 15912), (58, 15984), (74, 16083),

Gene: GingkoMaracino\_24 Start: 14359, Stop: 14955, Start Num: 20

Candidate Starts for GingkoMaracino\_24:

(Start: 20 @14359 has 272 MA's), (Start: 25 @14383 has 1 MA's), (28, 14404), (30, 14419), (44, 14530), (58, 14707), (69, 14767), (74, 14812),

Gene: Giroux\_22 Start: 13992, Stop: 14576, Start Num: 20

Candidate Starts for Giroux\_22:

(13, 13953), (Start: 20 @13992 has 272 MA's), (Start: 24 @14013 has 2 MA's), (Start: 25 @14016 has 1 MA's), (28, 14037), (30, 14052), (44, 14163), (46, 14235), (68, 14391), (74, 14442), (77, 14472), (80, 14496),

Gene: Gladiator\_26 Start: 15183, Stop: 15785, Start Num: 21

Candidate Starts for Gladiator\_26:

(Start: 21 @15183 has 252 MA's), (Start: 25 @15207 has 1 MA's), (43, 15336), (44, 15360), (59, 15546), (67, 15582), (69, 15591), (70, 15603), (76, 15660),

Gene: Gollum\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Gollum\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Goose\_22 Start: 14195, Stop: 14791, Start Num: 20

Candidate Starts for Goose\_22:

(13, 14156), (Start: 20 @14195 has 272 MA's), (Start: 24 @14216 has 2 MA's), (Start: 25 @14219 has 1 MA's), (30, 14255), (44, 14372), (68, 14600), (69, 14606), (74, 14651), (77, 14681),

Gene: Gratitude\_24 Start: 15592, Stop: 16182, Start Num: 21

Candidate Starts for Gratitude\_24:

(Start: 21 @15592 has 252 MA's), (Start: 25 @15616 has 1 MA's), (28, 15637), (48, 15868), (58, 15946), (59, 15955), (70, 16012), (80, 16099), (93, 16159),

Gene: GreedyLawyer\_26 Start: 15209, Stop: 15811, Start Num: 21

Candidate Starts for GreedyLawyer\_26:

(Start: 21 @15209 has 252 MA's), (Start: 25 @15233 has 1 MA's), (44, 15386), (59, 15572), (67, 15608), (69, 15617), (70, 15629), (76, 15686),

Gene: Grif\_24 Start: 14556, Stop: 15152, Start Num: 20

Candidate Starts for Grif\_24:

(Start: 20 @14556 has 272 MA's), (Start: 25 @14580 has 1 MA's), (28, 14601), (30, 14616), (44, 14727), (58, 14904), (69, 14964), (74, 15009),

Gene: Groundhog\_18 Start: 13005, Stop: 13607, Start Num: 21

Candidate Starts for Groundhog\_18:

(Start: 17 @12999 has 1 MA's), (Start: 21 @13005 has 252 MA's), (44, 13179), (45, 13215), (46, 13251), (48, 13281), (59, 13368), (60, 13383), (68, 13410), (74, 13461), (77, 13491),

Gene: Groupthink\_25 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Groupthink\_25:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: Grub\_24 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for Grub\_24:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),

Gene: Grum1\_24 Start: 14466, Stop: 15062, Start Num: 20

Candidate Starts for Grum1\_24:

(Start: 20 @14466 has 272 MA's), (Start: 25 @14490 has 1 MA's), (28, 14511), (30, 14526), (44, 14637), (58, 14814), (69, 14874), (74, 14919),

Gene: Gruunaga\_26 Start: 15183, Stop: 15785, Start Num: 21

Candidate Starts for Gruunaga\_26:

(Start: 21 @15183 has 252 MA's), (Start: 25 @15207 has 1 MA's), (43, 15336), (44, 15360), (59, 15546), (67, 15582), (69, 15591), (70, 15603), (76, 15660),

Gene: GtownJaz\_24 Start: 14474, Stop: 15070, Start Num: 20

Candidate Starts for GtownJaz\_24:

(Start: 20 @14474 has 272 MA's), (Start: 25 @14498 has 1 MA's), (28, 14519), (30, 14534), (44, 14645), (58, 14822), (69, 14882), (74, 14927),

Gene: HINdeR\_22 Start: 15876, Stop: 16463, Start Num: 21

Candidate Starts for HINdeR\_22:



(Start: 21 @15876 has 252 MA's), (Start: 24 @15897 has 2 MA's), (Start: 25 @15900 has 1 MA's), (44, 16053), (47, 16128), (67, 16278), (77, 16362),

Gene: HamSlice\_21 Start: 14386, Stop: 14976, Start Num: 20

Candidate Starts for HamSlice\_21:

(Start: 20 @14386 has 272 MA's), (Start: 24 @14407 has 2 MA's), (Start: 25 @14410 has 1 MA's), (44, 14557), (67, 14782), (74, 14836), (77, 14866),

Gene: Hammer\_26 Start: 15198, Stop: 15800, Start Num: 21

Candidate Starts for Hammer\_26:

(Start: 21 @15198 has 252 MA's), (Start: 25 @15222 has 1 MA's), (43, 15351), (44, 15375), (59, 15561), (67, 15597), (69, 15606), (70, 15618), (76, 15675),

Gene: Hanray\_23 Start: 15904, Stop: 16500, Start Num: 21

Candidate Starts for Hanray\_23:

(Start: 21 @15904 has 252 MA's), (Start: 25 @15928 has 1 MA's), (28, 15949), (33, 15991), (59, 16267), (68, 16309), (74, 16360), (93, 16474), (94, 16483),

Gene: Happiness\_22 Start: 14394, Stop: 14984, Start Num: 20

Candidate Starts for Happiness\_22:

(Start: 20 @14394 has 272 MA's), (Start: 24 @14415 has 2 MA's), (Start: 25 @14418 has 1 MA's), (44, 14565), (67, 14790), (74, 14844), (77, 14874),

Gene: Harlequin\_18 Start: 10322, Stop: 11185, Start Num: 2

Candidate Starts for Harlequin\_18:

(1, 10259), (Start: 2 @10322 has 36 MA's), (28, 10628), (48, 10880), (50, 10886), (57, 10949), (59, 10967), (67, 11009), (80, 11117),

Gene: HarryHoudini\_25 Start: 15607, Stop: 16197, Start Num: 21

Candidate Starts for HarryHoudini\_25:

(Start: 21 @15607 has 252 MA's), (Start: 25 @15631 has 1 MA's), (28, 15652), (48, 15883), (58, 15961), (59, 15970), (70, 16027), (80, 16114), (93, 16174),

Gene: HashRod\_25 Start: 14557, Stop: 15153, Start Num: 20

Candidate Starts for HashRod\_25:

(Start: 20 @14557 has 272 MA's), (Start: 25 @14581 has 1 MA's), (28, 14602), (30, 14617), (44, 14728), (58, 14905), (69, 14965), (74, 15010),

Gene: HaveUMetTed\_25 Start: 14541, Stop: 15146, Start Num: 20

Candidate Starts for HaveUMetTed\_25:

(Start: 20 @14541 has 272 MA's), (Start: 25 @14565 has 1 MA's), (28, 14586), (30, 14601), (44, 14712), (58, 14889), (68, 14943), (69, 14949), (74, 14994),

Gene: Heathen\_22 Start: 13793, Stop: 14377, Start Num: 20

Candidate Starts for Heathen\_22:

(13, 13754), (Start: 20 @13793 has 272 MA's), (Start: 24 @13814 has 2 MA's), (Start: 25 @13817 has 1 MA's), (28, 13838), (30, 13853), (44, 13964), (46, 14036), (68, 14192), (74, 14243), (77, 14273), (80, 14297),

Gene: Heffalump\_25 Start: 16901, Stop: 17485, Start Num: 21

Candidate Starts for Heffalump\_25:

(Start: 21 @16901 has 252 MA's), (Start: 25 @16925 has 1 MA's), (28, 16946), (45, 17108), (58, 17249), (59, 17258), (65, 17288), (68, 17297), (70, 17315), (74, 17348), (80, 17402), (85, 17426), (93,

17462),

Gene: HelDan\_22 Start: 14045, Stop: 14629, Start Num: 20

Candidate Starts for HelDan\_22:

(13, 14006), (Start: 20 @14045 has 272 MA's), (Start: 24 @14066 has 2 MA's), (Start: 25 @14069 has 1 MA's), (28, 14090), (30, 14105), (44, 14216), (46, 14288), (68, 14444), (74, 14495), (77, 14525), (80, 14549),

Gene: Heliosoles\_24 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Heliosoles\_24:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: Helmet\_27 Start: 15205, Stop: 15807, Start Num: 21

Candidate Starts for Helmet\_27:

(Start: 21 @15205 has 252 MA's), (Start: 25 @15229 has 1 MA's), (43, 15358), (44, 15382), (59, 15568), (67, 15604), (69, 15613), (70, 15625), (76, 15682),

Gene: Herbertwm\_20 Start: 13809, Stop: 14399, Start Num: 21

Candidate Starts for Herbertwm\_20:

(Start: 21 @13809 has 252 MA's), (Start: 25 @13833 has 1 MA's), (28, 13854), (30, 13869), (45, 14019), (51, 14091), (58, 14160), (59, 14169), (74, 14259), (80, 14313),

Gene: Hercules11\_24 Start: 14480, Stop: 15076, Start Num: 20

Candidate Starts for Hercules11\_24:

(Start: 20 @14480 has 272 MA's), (Start: 25 @14504 has 1 MA's), (28, 14525), (30, 14540), (44, 14651), (58, 14828), (69, 14888), (74, 14933),

Gene: Hexamo\_26 Start: 15165, Stop: 15767, Start Num: 21

Candidate Starts for Hexamo\_26:

(Start: 21 @15165 has 252 MA's), (Start: 25 @15189 has 1 MA's), (43, 15318), (44, 15342), (59, 15528), (67, 15564), (69, 15573), (70, 15585), (76, 15642),

Gene: Hiro\_18 Start: 10322, Stop: 11179, Start Num: 2

Candidate Starts for Hiro\_18:

(1, 10259), (Start: 2 @10322 has 36 MA's), (15, 10544), (28, 10628), (48, 10874), (50, 10880), (57, 10943), (59, 10961), (67, 11003), (80, 11111),

Gene: Horex\_23 Start: 15904, Stop: 16500, Start Num: 21

Candidate Starts for Horex\_23:

(Start: 21 @15904 has 252 MA's), (Start: 25 @15928 has 1 MA's), (28, 15949), (33, 15991), (59, 16267), (68, 16309), (74, 16360), (93, 16474), (94, 16483),

Gene: Holli\_22 Start: 14178, Stop: 14768, Start Num: 20

Candidate Starts for Holli\_22:

(Start: 20 @14178 has 272 MA's), (Start: 24 @14199 has 2 MA's), (Start: 25 @14202 has 1 MA's), (44, 14349), (67, 14574), (74, 14628), (77, 14658),

Gene: Hookmount\_23 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Hookmount\_23:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Hoot\_26 Start: 15188, Stop: 15790, Start Num: 21

Candidate Starts for Hoot\_26:

(Start: 21 @15188 has 252 MA's), (Start: 25 @15212 has 1 MA's), (44, 15365), (59, 15551), (67, 15587), (69, 15596), (70, 15608), (76, 15665),

Gene: HortumSL17\_24 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for HortumSL17\_24:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (59, 16263), (74, 16356), (93, 16470), (94, 16479),

Gene: Houdini22\_22 Start: 14392, Stop: 14982, Start Num: 20

Candidate Starts for Houdini22\_22:

(Start: 20 @14392 has 272 MA's), (Start: 24 @14413 has 2 MA's), (Start: 25 @14416 has 1 MA's), (44, 14563), (67, 14788), (74, 14842), (77, 14872),

Gene: HuhtaEnerson15\_19 Start: 13508, Stop: 14335, Start Num: 3

Candidate Starts for HuhtaEnerson15\_19:

(Start: 3 @13508 has 37 MA's), (7, 13637), (Start: 24 @13769 has 2 MA's), (26, 13775), (29, 13808), (32, 13841), (37, 13871), (44, 13931), (50, 14036), (58, 14108), (69, 14165), (84, 14285),

Gene: Hutc2\_23 Start: 15636, Stop: 16250, Start Num: 21

Candidate Starts for Hutc2\_23:

(Start: 21 @15636 has 252 MA's), (23, 15642), (28, 15681), (36, 15741), (45, 15849), (48, 15912), (50, 15918), (58, 15990), (74, 16089),

Gene: Huxley\_22 Start: 14452, Stop: 15042, Start Num: 20

Candidate Starts for Huxley\_22:

(Start: 20 @14452 has 272 MA's), (Start: 24 @14473 has 2 MA's), (Start: 25 @14476 has 1 MA's), (44, 14623), (67, 14848), (74, 14902), (77, 14932),

Gene: ICleared\_22 Start: 14386, Stop: 14976, Start Num: 20

Candidate Starts for ICleared\_22:

(Start: 20 @14386 has 272 MA's), (Start: 24 @14407 has 2 MA's), (Start: 25 @14410 has 1 MA's), (44, 14557), (67, 14782), (74, 14836), (77, 14866),

Gene: Iceman\_23 Start: 14677, Stop: 15267, Start Num: 20

Candidate Starts for Iceman\_23:

(Start: 20 @14677 has 272 MA's), (Start: 24 @14698 has 2 MA's), (Start: 25 @14701 has 1 MA's), (44, 14848), (67, 15073), (74, 15127), (77, 15157),

Gene: Idleandcovert\_22 Start: 13992, Stop: 14576, Start Num: 20

Candidate Starts for Idleandcovert\_22:

(13, 13953), (Start: 20 @13992 has 272 MA's), (Start: 24 @14013 has 2 MA's), (Start: 25 @14016 has 1 MA's), (28, 14037), (30, 14052), (44, 14163), (46, 14235), (68, 14391), (74, 14442), (77, 14472), (80, 14496),

Gene: Indra\_26 Start: 15210, Stop: 15812, Start Num: 21

Candidate Starts for Indra\_26:

(Start: 21 @15210 has 252 MA's), (Start: 25 @15234 has 1 MA's), (43, 15363), (44, 15387), (59, 15573), (67, 15609), (69, 15618), (70, 15630), (76, 15687),

Gene: Insomnia\_23 Start: 15685, Stop: 16305, Start Num: 21

Candidate Starts for Insomnia\_23:

(Start: 21 @15685 has 252 MA's), (23, 15691), (28, 15730), (36, 15790), (45, 15898), (48, 15961), (50, 15967), (58, 16039), (74, 16138),

Gene: Iracema64\_23 Start: 14700, Stop: 15290, Start Num: 20

Candidate Starts for Iracema64\_23:

(Start: 20 @14700 has 272 MA's), (Start: 24 @14721 has 2 MA's), (Start: 25 @14724 has 1 MA's), (44, 14871), (67, 15096), (74, 15150), (77, 15180),

Gene: IronMan\_25 Start: 16801, Stop: 17391, Start Num: 19

Candidate Starts for IronMan\_25:

(Start: 19 @16801 has 4 MA's), (Start: 25 @16825 has 1 MA's), (48, 17074), (50, 17080), (59, 17161), (68, 17200), (80, 17305), (93, 17365),

Gene: Isca\_22 Start: 13881, Stop: 14504, Start Num: 20

Candidate Starts for Isca\_22:

(Start: 20 @13881 has 272 MA's), (Start: 24 @13902 has 2 MA's), (Start: 25 @13905 has 1 MA's), (28, 13926), (30, 13941), (44, 14058), (68, 14286),

Gene: Isiphiwo\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for Isiphiwo\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: Iwokeuplikedis\_24 Start: 15094, Stop: 15681, Start Num: 21

Candidate Starts for Iwokeuplikedis\_24:

(Start: 21 @15094 has 252 MA's), (Start: 25 @15118 has 1 MA's), (28, 15139), (33, 15181), (48, 15367), (58, 15445), (59, 15454), (70, 15511), (80, 15598), (93, 15658),

Gene: JF2\_22 Start: 13644, Stop: 14255, Start Num: 20

Candidate Starts for JF2\_22:

(Start: 20 @13644 has 272 MA's), (Start: 24 @13665 has 2 MA's), (Start: 25 @13668 has 1 MA's), (28, 13689), (30, 13704), (44, 13821), (68, 14049),

Gene: JF4\_22 Start: 13644, Stop: 14255, Start Num: 20

Candidate Starts for JF4\_22:

(Start: 20 @13644 has 272 MA's), (Start: 24 @13665 has 2 MA's), (Start: 25 @13668 has 1 MA's), (28, 13689), (30, 13704), (44, 13821), (68, 14049),

Gene: JHC117\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for JHC117\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: JSwag\_25 Start: 14218, Stop: 14820, Start Num: 21

Candidate Starts for JSwag\_25:

(Start: 21 @14218 has 252 MA's), (Start: 24 @14239 has 2 MA's), (27, 14254), (28, 14263), (44, 14392), (45, 14428),

Gene: Jaan\_26 Start: 17199, Stop: 17789, Start Num: 19

Candidate Starts for Jaan\_26:

(Start: 19 @17199 has 4 MA's), (Start: 25 @17223 has 1 MA's), (28, 17244), (48, 17472), (50, 17478), (59, 17559), (68, 17598), (80, 17703),

Gene: Jabiru\_19 Start: 13398, Stop: 14228, Start Num: 3

Candidate Starts for Jabiru\_19:

(Start: 3 @13398 has 37 MA's), (7, 13527), (12, 13581), (Start: 24 @13659 has 2 MA's), (26, 13665), (31, 13725), (32, 13731), (34, 13737), (37, 13764), (44, 13824), (50, 13929), (58, 14001), (59, 14010), (67, 14049), (69, 14058), (84, 14178),

Gene: Jabith\_23 Start: 15685, Stop: 16305, Start Num: 21

Candidate Starts for Jabith\_23:

(Start: 21 @15685 has 252 MA's), (23, 15691), (28, 15730), (36, 15790), (45, 15898), (48, 15961), (50, 15967), (58, 16039), (74, 16138),

Gene: Jaykayelowell\_22 Start: 14384, Stop: 14974, Start Num: 20

Candidate Starts for Jaykayelowell\_22:

(Start: 20 @14384 has 272 MA's), (Start: 24 @14405 has 2 MA's), (Start: 25 @14408 has 1 MA's), (44, 14555), (67, 14780), (74, 14834), (77, 14864),

Gene: Jeeves\_22 Start: 14240, Stop: 14827, Start Num: 18

Candidate Starts for Jeeves\_22:

(8, 14135), (Start: 18 @14240 has 3 MA's), (Start: 25 @14264 has 1 MA's), (28, 14285), (48, 14516), (68, 14642), (69, 14648), (80, 14747), (93, 14807),

Gene: Jeffabunny\_26 Start: 15217, Stop: 15819, Start Num: 21

Candidate Starts for Jeffabunny\_26:

(Start: 21 @15217 has 252 MA's), (Start: 25 @15241 has 1 MA's), (43, 15370), (44, 15394), (59, 15580), (67, 15616), (69, 15625), (70, 15637), (76, 15694),

Gene: JenCasNa\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for JenCasNa\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: JeppNRM\_25 Start: 14545, Stop: 15141, Start Num: 20

Candidate Starts for JeppNRM\_25:

(Start: 20 @14545 has 272 MA's), (Start: 25 @14569 has 1 MA's), (28, 14590), (30, 14605), (44, 14716), (58, 14893), (68, 14947), (69, 14953), (74, 14998),

Gene: Jerm\_25 Start: 15532, Stop: 16122, Start Num: 21

Candidate Starts for Jerm\_25:

(5, 15319), (Start: 21 @15532 has 252 MA's), (Start: 25 @15556 has 1 MA's), (28, 15577), (45, 15745), (48, 15808), (51, 15817), (58, 15886), (59, 15895), (65, 15925), (70, 15952), (74, 15985), (80, 16039),

Gene: Jester\_18 Start: 10322, Stop: 11179, Start Num: 2

Candidate Starts for Jester\_18:

(1, 10259), (Start: 2 @10322 has 36 MA's), (28, 10628), (48, 10874), (50, 10880), (57, 10943), (59, 10961), (67, 11003),

Gene: JetBlade\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for JetBlade\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: JewelBug\_26 Start: 15212, Stop: 15814, Start Num: 21

Candidate Starts for JewelBug\_26:

(Start: 21 @15212 has 252 MA's), (Start: 25 @15236 has 1 MA's), (44, 15389), (59, 15575), (67, 15611), (69, 15620), (70, 15632), (76, 15689),

Gene: Jiawan\_23 Start: 15936, Stop: 16532, Start Num: 21

Candidate Starts for Jiawan\_23:

(Start: 21 @15936 has 252 MA's), (Start: 25 @15960 has 1 MA's), (28, 15981), (33, 16023), (59, 16299), (68, 16341), (74, 16392), (93, 16506), (94, 16515),

Gene: Jobu08\_24 Start: 14540, Stop: 15136, Start Num: 20

Candidate Starts for Jobu08\_24:

(Start: 20 @14540 has 272 MA's), (Start: 25 @14564 has 1 MA's), (28, 14585), (30, 14600), (44, 14711), (58, 14888), (68, 14942), (69, 14948), (74, 14993),

Gene: JoongJeon\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for JoongJeon\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Jordennis\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for Jordennis\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: Joselito\_23 Start: 15633, Stop: 16253, Start Num: 21

Candidate Starts for Joselito\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: JoshKayV\_25 Start: 15499, Stop: 16092, Start Num: 21

Candidate Starts for JoshKayV\_25:

(Start: 21 @15499 has 252 MA's), (Start: 25 @15523 has 1 MA's), (28, 15544), (45, 15712), (48, 15775), (58, 15853), (59, 15862), (65, 15892), (68, 15901), (70, 15919), (74, 15952),

Gene: Journey13\_21 Start: 14241, Stop: 14840, Start Num: 21

Candidate Starts for Journey13\_21:

(Start: 21 @14241 has 252 MA's), (Start: 25 @14265 has 1 MA's), (28, 14286), (48, 14514), (58, 14592), (59, 14601), (67, 14637), (70, 14658), (74, 14691), (76, 14715), (80, 14745),

Gene: Jovo\_19 Start: 13614, Stop: 14441, Start Num: 3

Candidate Starts for Jovo\_19:

(Start: 3 @13614 has 37 MA's), (7, 13743), (Start: 24 @13875 has 2 MA's), (26, 13881), (29, 13914), (32, 13947), (37, 13977), (44, 14037), (50, 14142), (58, 14214), (69, 14271), (84, 14391),

Gene: Jsquared\_22 Start: 13941, Stop: 14531, Start Num: 20

Candidate Starts for Jsquared\_22:

(Start: 20 @13941 has 272 MA's), (Start: 24 @13962 has 2 MA's), (Start: 25 @13965 has 1 MA's), (28, 13986), (48, 14214), (58, 14292), (59, 14301), (65, 14331), (68, 14340), (70, 14358),

Gene: KADY\_25 Start: 14557, Stop: 15153, Start Num: 20

Candidate Starts for KADY\_25:

(Start: 20 @14557 has 272 MA's), (Start: 25 @14581 has 1 MA's), (28, 14602), (30, 14617), (44, 14728), (58, 14905), (69, 14965), (74, 15010),

Gene: KFPoly\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for KFPoly\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Kachowdy\_22 Start: 14045, Stop: 14629, Start Num: 20

Candidate Starts for Kachowdy\_22:

(13, 14006), (Start: 20 @14045 has 272 MA's), (Start: 24 @14066 has 2 MA's), (Start: 25 @14069 has 1 MA's), (28, 14090), (30, 14105), (44, 14216), (46, 14288), (68, 14444), (74, 14495), (77, 14525), (80, 14549),

Gene: Kaine\_15 Start: 9859, Stop: 10422, Start Num: 21

Candidate Starts for Kaine\_15:

(Start: 21 @9859 has 252 MA's), (48, 10093), (69, 10231), (83, 10348),

Gene: Kalb97\_25 Start: 14545, Stop: 15141, Start Num: 20

Candidate Starts for Kalb97\_25:

(Start: 20 @14545 has 272 MA's), (Start: 25 @14569 has 1 MA's), (28, 14590), (30, 14605), (44, 14716), (58, 14893), (68, 14947), (69, 14953), (74, 14998),

Gene: Kalnoky\_25 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Kalnoky\_25:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: Kalpine\_26 Start: 16884, Stop: 17477, Start Num: 21

Candidate Starts for Kalpine\_26:

(Start: 21 @16884 has 252 MA's), (Start: 25 @16908 has 1 MA's), (28, 16929), (48, 17157), (58, 17235), (59, 17244), (70, 17301), (80, 17388), (94, 17457),

Gene: Kampy\_22 Start: 14386, Stop: 14976, Start Num: 20

Candidate Starts for Kampy\_22:

(Start: 20 @14386 has 272 MA's), (Start: 24 @14407 has 2 MA's), (Start: 25 @14410 has 1 MA's), (44, 14557), (67, 14782), (74, 14836), (77, 14866),

Gene: Katalie136\_22 Start: 14396, Stop: 14983, Start Num: 20

Candidate Starts for Katalie136\_22:

(Start: 20 @14396 has 272 MA's), (Start: 24 @14417 has 2 MA's), (Start: 25 @14420 has 1 MA's), (30, 14456), (44, 14573), (67, 14798), (70, 14819), (74, 14852), (77, 14882),

Gene: KatherineG\_25 Start: 14354, Stop: 14956, Start Num: 21

Candidate Starts for KatherineG\_25:

(Start: 21 @14354 has 252 MA's), (Start: 24 @14375 has 2 MA's), (27, 14390), (28, 14399), (44, 14528), (45, 14564),

Gene: Kazan\_26 Start: 15215, Stop: 15817, Start Num: 21

Candidate Starts for Kazan\_26:

(Start: 21 @15215 has 252 MA's), (Start: 25 @15239 has 1 MA's), (44, 15392), (59, 15578), (67, 15614), (69, 15623), (70, 15635), (76, 15692),

Gene: Kerberos\_26 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for Kerberos\_26:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: Keziacharles14\_22 Start: 14027, Stop: 14620, Start Num: 21

Candidate Starts for Keziacharles14\_22:

(Start: 21 @14027 has 252 MA's), (Start: 25 @14051 has 1 MA's), (28, 14072), (58, 14378), (74, 14480), (86, 14567), (93, 14594),

Gene: Kimona\_19 Start: 11906, Stop: 12499, Start Num: 21

Candidate Starts for Kimona\_19:

(Start: 21 @11906 has 252 MA's), (Start: 24 @11927 has 2 MA's), (Start: 25 @11930 has 1 MA's), (28, 11951), (30, 11966), (42, 12053), (44, 12083), (59, 12269), (67, 12308), (70, 12329), (74, 12362), (77, 12392), (80, 12416), (89, 12452),

Gene: KingCyrus\_25 Start: 15499, Stop: 16089, Start Num: 21

Candidate Starts for KingCyrus\_25:

(Start: 21 @15499 has 252 MA's), (Start: 25 @15523 has 1 MA's), (28, 15544), (45, 15712), (48, 15775), (51, 15784), (58, 15853), (59, 15862), (65, 15892), (68, 15901), (70, 15919),

Gene: Kingmustik0402\_22 Start: 14380, Stop: 14970, Start Num: 20

Candidate Starts for Kingmustik0402\_22:

(Start: 20 @14380 has 272 MA's), (Start: 24 @14401 has 2 MA's), (Start: 25 @14404 has 1 MA's), (44, 14551), (67, 14776), (74, 14830), (77, 14860),

Gene: Kinmap\_22 Start: 14932, Stop: 15522, Start Num: 21

Candidate Starts for Kinmap\_22:

(Start: 21 @14932 has 252 MA's), (Start: 25 @14956 has 1 MA's), (45, 15142),

Gene: Kipper29\_26 Start: 15209, Stop: 15811, Start Num: 21

Candidate Starts for Kipper29\_26:

(Start: 21 @15209 has 252 MA's), (Start: 25 @15233 has 1 MA's), (44, 15386), (59, 15572), (67, 15608), (69, 15617), (70, 15629), (76, 15686),

Gene: KittenMittens\_21 Start: 12294, Stop: 12890, Start Num: 20

Candidate Starts for KittenMittens\_21:

(Start: 20 @12294 has 272 MA's), (Start: 24 @12315 has 2 MA's), (Start: 25 @12318 has 1 MA's), (30, 12354), (44, 12471), (68, 12699), (69, 12705), (77, 12780),

Gene: Koan\_21 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Koan\_21:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Koduck\_23 Start: 14266, Stop: 14862, Start Num: 20

Candidate Starts for Koduck\_23:

(Start: 20 @14266 has 272 MA's), (Start: 24 @14287 has 2 MA's), (Start: 25 @14290 has 1 MA's), (28, 14311), (33, 14353), (58, 14617), (59, 14626), (65, 14656), (68, 14665), (70, 14683), (94, 14839),

Gene: Koko\_26 Start: 15231, Stop: 15824, Start Num: 21

Candidate Starts for Koko\_26:

(Start: 21 @15231 has 252 MA's), (Start: 25 @15255 has 1 MA's), (29, 15282), (48, 15501), (53, 15531), (58, 15579), (59, 15588), (70, 15645),



Gene: Koreni\_21 Start: 14034, Stop: 14624, Start Num: 20

Candidate Starts for Koreni\_21:

(Start: 20 @14034 has 272 MA's), (Start: 24 @14055 has 2 MA's), (Start: 25 @14058 has 1 MA's), (44, 14205), (67, 14430), (74, 14484), (77, 14514),

Gene: Kratak\_22 Start: 14383, Stop: 14973, Start Num: 20

Candidate Starts for Kratak\_22:

(Start: 20 @14383 has 272 MA's), (Start: 24 @14404 has 2 MA's), (Start: 25 @14407 has 1 MA's), (44, 14554), (67, 14779), (74, 14833), (77, 14863),

Gene: Kremtemulon\_22 Start: 14436, Stop: 15026, Start Num: 20

Candidate Starts for Kremtemulon\_22:

(Start: 20 @14436 has 272 MA's), (Start: 24 @14457 has 2 MA's), (Start: 25 @14460 has 1 MA's), (44, 14607), (67, 14832), (74, 14886), (77, 14916),

Gene: Krishelle\_18 Start: 10337, Stop: 11194, Start Num: 2

Candidate Starts for Krishelle\_18:

(1, 10274), (Start: 2 @10337 has 36 MA's), (15, 10559), (28, 10643), (48, 10889), (50, 10895), (57, 10958), (59, 10976), (67, 11018), (80, 11126),

Gene: Kristoff\_23 Start: 14382, Stop: 14978, Start Num: 20

Candidate Starts for Kristoff\_23:

(13, 14343), (Start: 20 @14382 has 272 MA's), (Start: 24 @14403 has 2 MA's), (Start: 25 @14406 has 1 MA's), (30, 14442), (44, 14559), (57, 14727), (69, 14793), (72, 14811), (77, 14868),

Gene: Kyee\_22 Start: 14389, Stop: 14979, Start Num: 20

Candidate Starts for Kyee\_22:

(Start: 20 @14389 has 272 MA's), (Start: 24 @14410 has 2 MA's), (Start: 25 @14413 has 1 MA's), (44, 14560), (67, 14785), (74, 14839), (77, 14869),

Gene: L5\_23 Start: 14277, Stop: 14873, Start Num: 20

Candidate Starts for L5\_23:

(Start: 20 @14277 has 272 MA's), (Start: 24 @14298 has 2 MA's), (Start: 25 @14301 has 1 MA's), (28, 14322), (33, 14364), (58, 14628), (59, 14637), (65, 14667), (68, 14676), (70, 14694), (94, 14850),

Gene: LBerry\_24 Start: 14473, Stop: 15069, Start Num: 20

Candidate Starts for LBerry\_24:

(Start: 20 @14473 has 272 MA's), (Start: 25 @14497 has 1 MA's), (28, 14518), (30, 14533), (44, 14644), (58, 14821), (69, 14881), (74, 14926),

Gene: LHTSCC\_23 Start: 14700, Stop: 15290, Start Num: 20

Candidate Starts for LHTSCC\_23:

(Start: 20 @14700 has 272 MA's), (Start: 24 @14721 has 2 MA's), (Start: 25 @14724 has 1 MA's), (44, 14871), (67, 15096), (74, 15150), (77, 15180),

Gene: LadyBird\_23 Start: 15069, Stop: 15665, Start Num: 21

Candidate Starts for LadyBird\_23:

(Start: 21 @15069 has 252 MA's), (Start: 25 @15093 has 1 MA's), (28, 15114), (45, 15282), (51, 15354), (53, 15375), (58, 15423), (59, 15432), (67, 15468), (70, 15489), (74, 15522), (80, 15576),

Gene: Lambert1\_23 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Lambert1\_23:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Landor\_24 Start: 16851, Stop: 17441, Start Num: 19

Candidate Starts for Landor\_24:

(Start: 19 @16851 has 4 MA's), (Start: 25 @16875 has 1 MA's), (28, 16896), (48, 17124), (50, 17130), (59, 17211), (68, 17250), (80, 17355),

Gene: LappelDuVide\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for LappelDuVide\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Larenn\_24 Start: 15375, Stop: 15962, Start Num: 21

Candidate Starts for Larenn\_24:

(Start: 21 @15375 has 252 MA's), (Start: 25 @15399 has 1 MA's), (28, 15420), (40, 15507), (43, 15525), (48, 15648), (58, 15726), (59, 15735), (68, 15774), (80, 15879), (93, 15939),

Gene: LarryKay\_24 Start: 14559, Stop: 15155, Start Num: 20

Candidate Starts for LarryKay\_24:

(Start: 20 @14559 has 272 MA's), (Start: 25 @14583 has 1 MA's), (28, 14604), (30, 14619), (44, 14730), (58, 14907), (69, 14967), (74, 15012),

Gene: LastResort\_25 Start: 14232, Stop: 14834, Start Num: 21

Candidate Starts for LastResort\_25:

(Start: 21 @14232 has 252 MA's), (Start: 24 @14253 has 2 MA's), (27, 14268), (28, 14277), (44, 14406), (45, 14442),

Gene: Lemur\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Lemur\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: LeoAvram\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for LeoAvram\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Leogania\_25 Start: 17242, Stop: 17832, Start Num: 21

Candidate Starts for Leogania\_25:

(Start: 21 @17242 has 252 MA's), (Start: 25 @17266 has 1 MA's), (28, 17287), (45, 17452), (48, 17515), (59, 17602), (70, 17659), (74, 17692), (80, 17746), (93, 17806), (94, 17815),

Gene: Lev2\_19 Start: 13326, Stop: 14153, Start Num: 3

Candidate Starts for Lev2\_19:

(Start: 3 @13326 has 37 MA's), (7, 13455), (Start: 24 @13587 has 2 MA's), (26, 13593), (29, 13626), (32, 13659), (37, 13689), (44, 13749), (50, 13854), (58, 13926), (66, 13971), (69, 13983), (84, 14103),

Gene: Leviathan\_25 Start: 15588, Stop: 16178, Start Num: 21

Candidate Starts for Leviathan\_25:

(Start: 21 @15588 has 252 MA's), (Start: 25 @15612 has 1 MA's), (28, 15633), (45, 15801), (48, 15864), (51, 15873), (58, 15942), (59, 15951), (65, 15981), (70, 16008), (74, 16041), (80, 16095),

Gene: LilTurb\_25 Start: 15591, Stop: 16181, Start Num: 21

Candidate Starts for LilTurb\_25:

(5, 15378), (Start: 21 @15591 has 252 MA's), (Start: 25 @15615 has 1 MA's), (28, 15636), (45, 15804), (48, 15867), (51, 15876), (58, 15945), (59, 15954), (65, 15984), (70, 16011), (74, 16044), (80, 16098),

Gene: Lilbunny\_26 Start: 15191, Stop: 15793, Start Num: 21

Candidate Starts for Lilbunny\_26:

(Start: 21 @15191 has 252 MA's), (Start: 25 @15215 has 1 MA's), (43, 15344), (44, 15368), (45, 15404), (59, 15554), (67, 15590), (69, 15599), (70, 15611), (76, 15668),

Gene: Lilit\_24 Start: 14466, Stop: 15062, Start Num: 20

Candidate Starts for Lilit\_24:

(Start: 20 @14466 has 272 MA's), (Start: 25 @14490 has 1 MA's), (28, 14511), (30, 14526), (44, 14637), (58, 14814), (69, 14874), (74, 14919),

Gene: Lilleskat\_22 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for Lilleskat\_22:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (33, 15987), (59, 16263), (68, 16305), (74, 16356), (93, 16470), (94, 16479),

Gene: Lillie\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Lillie\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: LionsBait\_24 Start: 16854, Stop: 17447, Start Num: 21

Candidate Starts for LionsBait\_24:

(Start: 21 @16854 has 252 MA's), (Start: 25 @16878 has 1 MA's), (28, 16899), (33, 16941), (48, 17127), (58, 17205), (59, 17214), (68, 17253), (74, 17304), (80, 17358), (94, 17427),

Gene: LittleB\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for LittleB\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: LittleCherry\_19 Start: 13509, Stop: 14336, Start Num: 3

Candidate Starts for LittleCherry\_19:

(Start: 3 @13509 has 37 MA's), (7, 13638), (Start: 24 @13770 has 2 MA's), (26, 13776), (29, 13809), (32, 13842), (37, 13872), (44, 13932), (50, 14037), (58, 14109), (69, 14166), (84, 14286),

Gene: LittleGuy\_22 Start: 14331, Stop: 14921, Start Num: 20

Candidate Starts for LittleGuy\_22:

(Start: 20 @14331 has 272 MA's), (Start: 24 @14352 has 2 MA's), (Start: 25 @14355 has 1 MA's), (44, 14502), (67, 14727), (74, 14781), (77, 14811),

Gene: LochMonster\_22 Start: 14363, Stop: 14953, Start Num: 20

Candidate Starts for LochMonster\_22:

(Start: 20 @14363 has 272 MA's), (Start: 24 @14384 has 2 MA's), (Start: 25 @14387 has 1 MA's), (44, 14534), (67, 14759), (74, 14813), (77, 14843),

Gene: Lokk\_26 Start: 16757, Stop: 17338, Start Num: 21

Candidate Starts for Lokk\_26:

(Start: 21 @16757 has 252 MA's), (Start: 25 @16781 has 1 MA's), (28, 16802), (48, 17030), (58, 17108), (59, 17117), (68, 17156), (80, 17261),

Gene: LoneWolf\_24 Start: 15703, Stop: 16296, Start Num: 21

Candidate Starts for LoneWolf\_24:

(Start: 21 @15703 has 252 MA's), (Start: 25 @15727 has 1 MA's), (28, 15748), (29, 15754), (58, 16054), (74, 16156), (93, 16270), (94, 16279),

Gene: Looper\_26 Start: 14232, Stop: 14834, Start Num: 21

Candidate Starts for Looper\_26:

(Start: 21 @14232 has 252 MA's), (Start: 24 @14253 has 2 MA's), (27, 14268), (28, 14277), (44, 14406), (45, 14442),

Gene: Lorenzo\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Lorenzo\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Loser\_26 Start: 16879, Stop: 17472, Start Num: 21

Candidate Starts for Loser\_26:

(Start: 21 @16879 has 252 MA's), (Start: 25 @16903 has 1 MA's), (28, 16924), (45, 17089), (48, 17152), (58, 17230), (59, 17239), (70, 17296), (80, 17383), (94, 17452),

Gene: Louie6\_24 Start: 14560, Stop: 15156, Start Num: 20

Candidate Starts for Louie6\_24:

(Start: 20 @14560 has 272 MA's), (Start: 25 @14584 has 1 MA's), (28, 14605), (30, 14620), (44, 14731), (58, 14908), (69, 14968), (74, 15013),

Gene: Lowa\_24 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for Lowa\_24:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),

Gene: Luchador\_24 Start: 15438, Stop: 16031, Start Num: 21

Candidate Starts for Luchador\_24:

(Start: 21 @15438 has 252 MA's), (Start: 25 @15462 has 1 MA's), (28, 15483), (68, 15840), (69, 15846), (94, 16014),

Gene: Lucivia\_23 Start: 15682, Stop: 16302, Start Num: 21

Candidate Starts for Lucivia\_23:

(Start: 21 @15682 has 252 MA's), (23, 15688), (28, 15727), (36, 15787), (45, 15895), (48, 15958), (50, 15964), (58, 16036), (74, 16135),

Gene: Lucyedi\_24 Start: 15265, Stop: 15858, Start Num: 21

Candidate Starts for Lucyedi\_24:

(Start: 21 @15265 has 252 MA's), (Start: 25 @15289 has 1 MA's), (28, 15310), (53, 15568), (74, 15715), (86, 15802), (94, 15838),

Gene: LugYA\_26 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for LugYA\_26:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Lunsford\_23 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Lunsford\_23:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: MA5\_22 Start: 13589, Stop: 14191, Start Num: 20

Candidate Starts for MA5\_22:

(13, 13550), (Start: 20 @13589 has 272 MA's), (Start: 24 @13610 has 2 MA's), (Start: 25 @13613 has 1 MA's), (28, 13634), (30, 13649), (44, 13766), (68, 13994),

Gene: MK4\_22 Start: 13878, Stop: 14489, Start Num: 20

Candidate Starts for MK4\_22:

(Start: 20 @13878 has 272 MA's), (Start: 24 @13899 has 2 MA's), (Start: 25 @13902 has 1 MA's), (28, 13923), (30, 13938), (44, 14055), (68, 14283),

Gene: MaCh\_23 Start: 15630, Stop: 16244, Start Num: 21

Candidate Starts for MaCh\_23:

(Start: 21 @15630 has 252 MA's), (23, 15636), (28, 15675), (36, 15735), (45, 15843), (48, 15906), (50, 15912), (58, 15984), (74, 16083),

Gene: Mabel\_23 Start: 15697, Stop: 16305, Start Num: 21

Candidate Starts for Mabel\_23:

(Start: 21 @15697 has 252 MA's), (23, 15703), (28, 15742), (36, 15802), (45, 15910), (48, 15973), (58, 16051), (74, 16150),

Gene: MadMarie\_24 Start: 14475, Stop: 15071, Start Num: 20

Candidate Starts for MadMarie\_24:

(Start: 20 @14475 has 272 MA's), (Start: 25 @14499 has 1 MA's), (28, 14520), (30, 14535), (44, 14646), (58, 14823), (69, 14883), (74, 14928),

Gene: Mainiac\_24 Start: 14466, Stop: 15062, Start Num: 20

Candidate Starts for Mainiac\_24:

(Start: 20 @14466 has 272 MA's), (Start: 25 @14490 has 1 MA's), (28, 14511), (30, 14526), (44, 14637), (58, 14814), (69, 14874), (74, 14919),

Gene: MajorMajor\_22 Start: 14011, Stop: 14601, Start Num: 20

Candidate Starts for MajorMajor\_22:

(Start: 20 @14011 has 272 MA's), (Start: 25 @14035 has 1 MA's), (28, 14056), (33, 14098), (48, 14284), (58, 14362), (59, 14371), (65, 14401), (68, 14410), (70, 14428),

Gene: Malec\_24 Start: 15380, Stop: 15967, Start Num: 21

Candidate Starts for Malec\_24:

(Start: 21 @15380 has 252 MA's), (Start: 25 @15404 has 1 MA's), (28, 15425), (40, 15512), (43, 15530), (48, 15653), (58, 15731), (59, 15740), (68, 15779), (80, 15884), (93, 15944),

Gene: Malinsilva\_26 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for Malinsilva\_26:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),

Gene: Maminiaina\_24 Start: 15630, Stop: 16226, Start Num: 21

Candidate Starts for Maminiaina\_24:

(Start: 21 @15630 has 252 MA's), (Start: 25 @15654 has 1 MA's), (59, 15993), (68, 16035), (69, 16041), (74, 16086), (93, 16200), (94, 16209),

Gene: Manu\_25 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Manu\_25:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: MarQuardt\_24 Start: 14474, Stop: 15070, Start Num: 20

Candidate Starts for MarQuardt\_24:

(Start: 20 @14474 has 272 MA's), (Start: 25 @14498 has 1 MA's), (28, 14519), (30, 14534), (44, 14645), (58, 14822), (69, 14882), (74, 14927),

Gene: Marchesa\_22 Start: 14043, Stop: 14627, Start Num: 20

Candidate Starts for Marchesa\_22:

(13, 14004), (Start: 20 @14043 has 272 MA's), (Start: 24 @14064 has 2 MA's), (Start: 25 @14067 has 1 MA's), (28, 14088), (30, 14103), (44, 14214), (46, 14286), (68, 14442), (74, 14493), (77, 14523), (80, 14547),

Gene: Margo\_23 Start: 14556, Stop: 15155, Start Num: 20

Candidate Starts for Margo\_23:

(Start: 20 @14556 has 272 MA's), (Start: 24 @14577 has 2 MA's), (Start: 25 @14580 has 1 MA's), (28, 14601), (30, 14616), (41, 14697), (44, 14733), (46, 14805), (68, 14961), (77, 15042),

Gene: Marie\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for Marie\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Marius\_25 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Marius\_25:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: MarysWell\_18 Start: 13476, Stop: 14303, Start Num: 3

Candidate Starts for MarysWell\_18:

(Start: 3 @13476 has 37 MA's), (7, 13605), (Start: 24 @13737 has 2 MA's), (26, 13743), (29, 13776), (32, 13809), (37, 13839), (44, 13899), (50, 14004), (58, 14076), (69, 14133), (84, 14253),

Gene: Maverick\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Maverick\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Maxo\_22 Start: 14386, Stop: 14976, Start Num: 20

Candidate Starts for Maxo\_22:

(Start: 20 @14386 has 272 MA's), (Start: 24 @14407 has 2 MA's), (Start: 25 @14410 has 1 MA's), (44, 14557), (67, 14782), (74, 14836), (77, 14866),

Gene: Mayonnaise\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Mayonnaise\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Mazhar510\_22 Start: 14389, Stop: 14979, Start Num: 20

Candidate Starts for Mazhar510\_22:

(Start: 20 @14389 has 272 MA's), (Start: 24 @14410 has 2 MA's), (Start: 25 @14413 has 1 MA's), (44, 14560), (67, 14785), (74, 14839), (77, 14869),

Gene: McFly\_26 Start: 15209, Stop: 15811, Start Num: 21

Candidate Starts for McFly\_26:

(Start: 21 @15209 has 252 MA's), (Start: 25 @15233 has 1 MA's), (44, 15386), (59, 15572), (67, 15608), (69, 15617), (70, 15629), (76, 15686),

Gene: Medusa\_22 Start: 14389, Stop: 14979, Start Num: 20

Candidate Starts for Medusa\_22:

(Start: 20 @14389 has 272 MA's), (Start: 24 @14410 has 2 MA's), (Start: 25 @14413 has 1 MA's), (44, 14560), (67, 14785), (74, 14839), (77, 14869),

Gene: MeeZee\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for MeeZee\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Melvin\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Melvin\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Methuselah\_23 Start: 14556, Stop: 15152, Start Num: 20

Candidate Starts for Methuselah\_23:

(Start: 20 @14556 has 272 MA's), (Start: 25 @14580 has 1 MA's), (28, 14601), (30, 14616), (44, 14727), (58, 14904), (69, 14964), (74, 15009),

Gene: Micasa\_19 Start: 13477, Stop: 14304, Start Num: 3

Candidate Starts for Micasa\_19:

(Start: 3 @13477 has 37 MA's), (7, 13606), (Start: 24 @13738 has 2 MA's), (26, 13744), (29, 13777), (32, 13810), (37, 13840), (44, 13900), (50, 14005), (58, 14077), (69, 14134), (84, 14254),

Gene: Microwolf\_24 Start: 14474, Stop: 15070, Start Num: 20

Candidate Starts for Microwolf\_24:

(Start: 20 @14474 has 272 MA's), (Start: 25 @14498 has 1 MA's), (28, 14519), (30, 14534), (44, 14645), (58, 14822), (69, 14882), (74, 14927),

Gene: MiculUcigas\_23 Start: 15150, Stop: 15740, Start Num: 21

Candidate Starts for MiculUcigas\_23:

(Start: 21 @15150 has 252 MA's), (Start: 25 @15174 has 1 MA's), (28, 15195), (30, 15210), (48, 15426), (58, 15504), (59, 15513), (70, 15570), (80, 15657), (93, 15717),

Gene: Midas2\_19 Start: 13476, Stop: 14303, Start Num: 3

Candidate Starts for Midas2\_19:

(Start: 3 @13476 has 37 MA's), (7, 13605), (Start: 24 @13737 has 2 MA's), (26, 13743), (29, 13776), (32, 13809), (37, 13839), (44, 13899), (50, 14004), (58, 14076), (69, 14133), (84, 14253),

Gene: Miko\_26 Start: 16727, Stop: 17308, Start Num: 21

Candidate Starts for Miko\_26:

(Start: 21 @16727 has 252 MA's), (Start: 25 @16751 has 1 MA's), (28, 16772), (33, 16814), (48, 17000), (58, 17078), (59, 17087), (68, 17126), (80, 17231), (93, 17291),

Gene: Milcery\_19 Start: 13513, Stop: 14340, Start Num: 3

Candidate Starts for Milcery\_19:

(Start: 3 @13513 has 37 MA's), (7, 13642), (Start: 24 @13774 has 2 MA's), (26, 13780), (29, 13813), (32, 13846), (37, 13876), (44, 13936), (50, 14041), (58, 14113), (69, 14170), (84, 14290),

Gene: Millski\_22 Start: 14391, Stop: 14981, Start Num: 20

Candidate Starts for Millski\_22:

(Start: 20 @14391 has 272 MA's), (Start: 24 @14412 has 2 MA's), (Start: 25 @14415 has 1 MA's), (44, 14562), (67, 14787), (74, 14841), (77, 14871),

Gene: MinecraftSteve\_26 Start: 14354, Stop: 14956, Start Num: 21

Candidate Starts for MinecraftSteve\_26:

(Start: 21 @14354 has 252 MA's), (Start: 24 @14375 has 2 MA's), (27, 14390), (28, 14399), (44, 14528), (45, 14564),

Gene: Miramae\_22 Start: 14342, Stop: 14929, Start Num: 20

Candidate Starts for Miramae\_22:

(Start: 20 @14342 has 272 MA's), (Start: 24 @14363 has 2 MA's), (Start: 25 @14366 has 1 MA's), (30, 14402), (44, 14519), (70, 14765), (74, 14798), (77, 14828),

Gene: Misomonster\_26 Start: 14556, Stop: 15152, Start Num: 20

Candidate Starts for Misomonster\_26:

(Start: 20 @14556 has 272 MA's), (Start: 25 @14580 has 1 MA's), (28, 14601), (30, 14616), (44, 14727), (58, 14904), (69, 14964), (74, 15009),

Gene: MissWhite\_23 Start: 14201, Stop: 14800, Start Num: 21

Candidate Starts for MissWhite\_23:

(Start: 21 @14201 has 252 MA's), (Start: 24 @14222 has 2 MA's), (Start: 25 @14225 has 1 MA's), (28, 14246), (45, 14411), (58, 14552), (59, 14561), (67, 14597), (70, 14618), (80, 14705),

Gene: MoneyMay\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for MoneyMay\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Morpher26\_22 Start: 14396, Stop: 14983, Start Num: 20

Candidate Starts for Morpher26\_22:

(Start: 20 @14396 has 272 MA's), (Start: 24 @14417 has 2 MA's), (Start: 25 @14420 has 1 MA's), (30, 14456), (44, 14573), (67, 14798), (70, 14819), (74, 14852), (77, 14882),

Gene: Morrow\_22 Start: 14391, Stop: 14981, Start Num: 20

Candidate Starts for Morrow\_22:

(Start: 20 @14391 has 272 MA's), (Start: 24 @14412 has 2 MA's), (Start: 25 @14415 has 1 MA's), (44, 14562), (67, 14787), (74, 14841), (77, 14871),

Gene: MuchMore\_26 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for MuchMore\_26:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),



Gene: Mulciber\_23 Start: 15633, Stop: 16247, Start Num: 21

Candidate Starts for Mulciber\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: Munch\_23 Start: 15633, Stop: 16253, Start Num: 21

Candidate Starts for Munch\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: Mundrea\_22 Start: 14362, Stop: 14949, Start Num: 20

Candidate Starts for Mundrea\_22:

(Start: 20 @14362 has 272 MA's), (Start: 24 @14383 has 2 MA's), (Start: 25 @14386 has 1 MA's), (30, 14422), (44, 14539), (70, 14785), (74, 14818), (77, 14848),

Gene: MyraDee\_20 Start: 12568, Stop: 13170, Start Num: 21

Candidate Starts for MyraDee\_20:

(Start: 21 @12568 has 252 MA's), (44, 12736), (48, 12838), (51, 12847), (57, 12907), (59, 12925), (69, 12973), (77, 13048), (84, 13093),

Gene: Myxus\_24 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for Myxus\_24:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (59, 16263), (74, 16356), (93, 16470), (94, 16479),

Gene: NaSiaTalie\_23 Start: 15147, Stop: 15737, Start Num: 21

Candidate Starts for NaSiaTalie\_23:

(Start: 21 @15147 has 252 MA's), (Start: 25 @15171 has 1 MA's), (28, 15192), (48, 15423), (58, 15501), (59, 15510), (70, 15567), (80, 15654), (93, 15714),

Gene: Naca\_19 Start: 13432, Stop: 14262, Start Num: 3

Candidate Starts for Naca\_19:

(Start: 3 @13432 has 37 MA's), (7, 13561), (12, 13615), (Start: 24 @13693 has 2 MA's), (26, 13699), (32, 13765), (37, 13798), (44, 13858), (50, 13963), (58, 14035), (59, 14044), (67, 14083), (69, 14092), (80, 14191), (84, 14212),

Gene: Naiad\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Naiad\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Naji\_26 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for Naji\_26:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: Nancinator\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Nancinator\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Natosaleda\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Natosaleda\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: NearlyHeadless\_19 Start: 13054, Stop: 13656, Start Num: 21

Candidate Starts for NearlyHeadless\_19:

(10, 12952), (Start: 17 @13048 has 1 MA's), (Start: 21 @13054 has 252 MA's), (33, 13141), (44, 13228), (45, 13264), (46, 13300), (48, 13330), (59, 13417), (60, 13432), (68, 13459), (74, 13510), (77, 13540),

Gene: Nebs\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Nebs\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Nebulosus\_25 Start: 14232, Stop: 14834, Start Num: 21

Candidate Starts for Nebulosus\_25:

(Start: 21 @14232 has 252 MA's), (Start: 24 @14253 has 2 MA's), (27, 14268), (28, 14277), (44, 14406), (45, 14442),

Gene: Nedarya\_24 Start: 14901, Stop: 15500, Start Num: 21

Candidate Starts for Nedarya\_24:

(Start: 21 @14901 has 252 MA's), (Start: 24 @14922 has 2 MA's), (Start: 25 @14925 has 1 MA's), (44, 15075), (59, 15261),

Gene: Neeharika16\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for Neeharika16\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: Nemo27\_22 Start: 14408, Stop: 14977, Start Num: 24

Candidate Starts for Nemo27\_22:

(Start: 20 @14387 has 272 MA's), (Start: 24 @14408 has 2 MA's), (Start: 25 @14411 has 1 MA's), (44, 14558), (67, 14783), (74, 14837), (77, 14867),

Gene: Newrala\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for Newrala\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: NicoleTera\_27 Start: 16855, Stop: 17448, Start Num: 21

Candidate Starts for NicoleTera\_27:

(Start: 21 @16855 has 252 MA's), (Start: 25 @16879 has 1 MA's), (28, 16900), (45, 17065), (48, 17128), (58, 17206), (59, 17215), (65, 17245), (70, 17272), (80, 17359), (94, 17428),

Gene: Noella\_23 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Noella\_23:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Noelle\_22 Start: 14448, Stop: 15035, Start Num: 20

Candidate Starts for Noelle\_22:

(Start: 20 @14448 has 272 MA's), (Start: 24 @14469 has 2 MA's), (Start: 25 @14472 has 1 MA's), (30, 14508), (44, 14625), (66, 14847), (74, 14904), (77, 14934),

Gene: Norbert\_22 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Norbert\_22:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: NorthStar\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for NorthStar\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: NotAPhaseMom\_22 Start: 14392, Stop: 14982, Start Num: 20

Candidate Starts for NotAPhaseMom\_22:

(Start: 20 @14392 has 272 MA's), (Start: 24 @14413 has 2 MA's), (Start: 25 @14416 has 1 MA's), (44, 14563), (67, 14788), (74, 14842), (77, 14872),

Gene: NothingSpecial\_25 Start: 17114, Stop: 17704, Start Num: 21

Candidate Starts for NothingSpecial\_25:

(Start: 21 @17114 has 252 MA's), (Start: 25 @17138 has 1 MA's), (28, 17159), (48, 17387), (58, 17465), (59, 17474), (68, 17513), (70, 17531), (74, 17564), (80, 17618), (94, 17687),

Gene: Nyxis\_22 Start: 14331, Stop: 14921, Start Num: 20

Candidate Starts for Nyxis\_22:

(Start: 20 @14331 has 272 MA's), (Start: 24 @14352 has 2 MA's), (Start: 25 @14355 has 1 MA's), (44, 14502), (67, 14727), (74, 14781), (77, 14811),

Gene: OKCentral2016\_22 Start: 13895, Stop: 14491, Start Num: 20

Candidate Starts for OKCentral2016\_22:

(13, 13856), (Start: 20 @13895 has 272 MA's), (Start: 24 @13916 has 2 MA's), (Start: 25 @13919 has 1 MA's), (30, 13955), (44, 14072), (68, 14300), (69, 14306), (74, 14351), (77, 14381),

Gene: OKaNui\_23 Start: 14441, Stop: 15031, Start Num: 20

Candidate Starts for OKaNui\_23:

(Start: 20 @14441 has 272 MA's), (Start: 24 @14462 has 2 MA's), (Start: 25 @14465 has 1 MA's), (44, 14612), (67, 14837), (74, 14891), (77, 14921),

Gene: Obama12\_23 Start: 14702, Stop: 15292, Start Num: 20

Candidate Starts for Obama12\_23:

(Start: 20 @14702 has 272 MA's), (Start: 24 @14723 has 2 MA's), (Start: 25 @14726 has 1 MA's), (44, 14873), (67, 15098), (74, 15152), (77, 15182),

Gene: Odin\_22 Start: 13878, Stop: 14471, Start Num: 20

Candidate Starts for Odin\_22:

(Start: 20 @13878 has 272 MA's), (Start: 24 @13899 has 2 MA's), (Start: 25 @13902 has 1 MA's), (28, 13923), (48, 14151), (58, 14229), (59, 14238), (65, 14268), (67, 14274), (70, 14295), (80, 14382),

Gene: Ohfah\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Ohfah\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: OlanP\_24 Start: 14727, Stop: 15332, Start Num: 20

Candidate Starts for OlanP\_24:

(Start: 20 @14727 has 272 MA's), (Start: 25 @14751 has 1 MA's), (28, 14772), (30, 14787), (44, 14898), (58, 15075), (69, 15135), (74, 15180),

Gene: Ollie\_24 Start: 14344, Stop: 14940, Start Num: 20

Candidate Starts for Ollie\_24:

(Start: 20 @14344 has 272 MA's), (Start: 25 @14368 has 1 MA's), (28, 14389), (30, 14404), (44, 14515), (58, 14692), (68, 14746), (69, 14752), (74, 14797),

Gene: Onglai\_23 Start: 14234, Stop: 14830, Start Num: 21

Candidate Starts for Onglai\_23:

(Start: 21 @14234 has 252 MA's), (Start: 25 @14258 has 1 MA's), (28, 14279), (33, 14321), (59, 14597), (68, 14639), (74, 14690), (93, 14804), (94, 14813),

Gene: Oofda\_26 Start: 14203, Stop: 14805, Start Num: 21

Candidate Starts for Oofda\_26:

(Start: 21 @14203 has 252 MA's), (Start: 24 @14224 has 2 MA's), (27, 14239), (28, 14248), (44, 14377), (45, 14413),

Gene: Orange\_23 Start: 15633, Stop: 16253, Start Num: 21

Candidate Starts for Orange\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: P28Green\_24 Start: 14475, Stop: 15068, Start Num: 20

Candidate Starts for P28Green\_24:

(Start: 20 @14475 has 272 MA's), (Start: 25 @14499 has 1 MA's), (28, 14520), (30, 14535), (44, 14646), (58, 14823), (69, 14883), (74, 14928),

Gene: PGHhamlin\_26 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for PGHhamlin\_26:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),

Gene: PP\_32 Start: 20281, Stop: 20862, Start Num: 21

Candidate Starts for PP\_32:

(Start: 21 @20281 has 252 MA's), (Start: 24 @20302 has 2 MA's), (44, 20452), (45, 20488), (47, 20527), (67, 20677), (77, 20761),

Gene: PackMan\_24 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for PackMan\_24:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (59, 16263), (74, 16356), (93, 16470), (94, 16479),

Gene: PainterBoy\_24 Start: 15265, Stop: 15858, Start Num: 21

Candidate Starts for PainterBoy\_24:

(Start: 21 @15265 has 252 MA's), (Start: 25 @15289 has 1 MA's), (28, 15310), (53, 15568), (74, 15715), (86, 15802), (94, 15838),

Gene: Palestino\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Palestino\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Panamaxus\_22 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Panamaxus\_22:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Partridge\_18 Start: 10405, Stop: 11268, Start Num: 2

Candidate Starts for Partridge\_18:

(1, 10342), (Start: 2 @10405 has 36 MA's), (28, 10711), (48, 10963), (50, 10969), (57, 11032), (59, 11050), (67, 11092), (80, 11200),

Gene: Pavo\_16 Start: 10136, Stop: 10711, Start Num: 21

Candidate Starts for Pavo\_16:

(Start: 21 @10136 has 252 MA's), (48, 10370), (69, 10508), (83, 10625),

Gene: Pawn\_24 Start: 14547, Stop: 15143, Start Num: 20

Candidate Starts for Pawn\_24:

(Start: 20 @14547 has 272 MA's), (Start: 25 @14571 has 1 MA's), (28, 14592), (30, 14607), (44, 14718), (58, 14895), (68, 14949), (69, 14955), (74, 15000),

Gene: PeaceMeal1\_21 Start: 12295, Stop: 12891, Start Num: 20

Candidate Starts for PeaceMeal1\_21:

(Start: 20 @12295 has 272 MA's), (Start: 24 @12316 has 2 MA's), (Start: 25 @12319 has 1 MA's), (30, 12355), (44, 12472), (68, 12700), (69, 12706), (77, 12781),

Gene: Peaches\_22 Start: 14387, Stop: 14977, Start Num: 20

Candidate Starts for Peaches\_22:

(Start: 20 @14387 has 272 MA's), (Start: 24 @14408 has 2 MA's), (Start: 25 @14411 has 1 MA's), (44, 14558), (67, 14783), (74, 14837), (77, 14867),

Gene: Pembroke\_24 Start: 14474, Stop: 15070, Start Num: 20

Candidate Starts for Pembroke\_24:

(Start: 20 @14474 has 272 MA's), (Start: 25 @14498 has 1 MA's), (28, 14519), (30, 14534), (44, 14645), (58, 14822), (69, 14882), (74, 14927),

Gene: Penny1\_24 Start: 14473, Stop: 15069, Start Num: 20

Candidate Starts for Penny1\_24:

(Start: 20 @14473 has 272 MA's), (Start: 25 @14497 has 1 MA's), (28, 14518), (30, 14533), (44, 14644), (58, 14821), (69, 14881), (74, 14926),

Gene: Perplexer\_22 Start: 14390, Stop: 14977, Start Num: 20

Candidate Starts for Perplexer\_22:

(Start: 20 @14390 has 272 MA's), (Start: 24 @14411 has 2 MA's), (Start: 25 @14414 has 1 MA's), (30, 14450), (44, 14567), (67, 14792), (70, 14813), (74, 14846), (77, 14876),

Gene: PeterPeter\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for PeterPeter\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Petersenfast\_22 Start: 15636, Stop: 16250, Start Num: 21

Candidate Starts for Petersenfast\_22:

(Start: 21 @15636 has 252 MA's), (23, 15642), (28, 15681), (36, 15741), (45, 15849), (48, 15912), (50, 15918), (58, 15990), (74, 16089),

Gene: PetiteSangsue\_22 Start: 14396, Stop: 14983, Start Num: 20

Candidate Starts for PetiteSangsue\_22:

(Start: 20 @14396 has 272 MA's), (Start: 24 @14417 has 2 MA's), (Start: 25 @14420 has 1 MA's), (30, 14456), (44, 14573), (67, 14798), (70, 14819), (74, 14852), (77, 14882),

Gene: PetterN\_20 Start: 13318, Stop: 14148, Start Num: 3

Candidate Starts for PetterN\_20:

(Start: 3 @13318 has 37 MA's), (7, 13447), (12, 13501), (Start: 24 @13579 has 2 MA's), (26, 13585), (32, 13651), (34, 13657), (37, 13684), (44, 13744), (50, 13849), (52, 13855), (58, 13921), (59, 13930), (66, 13966), (67, 13969), (69, 13978), (84, 14098),

Gene: Ph8s\_24 Start: 13834, Stop: 14427, Start Num: 20

Candidate Starts for Ph8s\_24:

(Start: 20 @13834 has 272 MA's), (Start: 24 @13855 has 2 MA's), (Start: 25 @13858 has 1 MA's), (28, 13879), (48, 14107), (58, 14185), (59, 14194), (65, 14224), (67, 14230), (70, 14251), (80, 14338),

Gene: Phacado\_22 Start: 14387, Stop: 14977, Start Num: 20

Candidate Starts for Phacado\_22:

(Start: 20 @14387 has 272 MA's), (Start: 24 @14408 has 2 MA's), (Start: 25 @14411 has 1 MA's), (44, 14558), (67, 14783), (74, 14837), (77, 14867),

Gene: Phaded\_26 Start: 17198, Stop: 17788, Start Num: 19

Candidate Starts for Phaded\_26:

(Start: 19 @17198 has 4 MA's), (Start: 25 @17222 has 1 MA's), (28, 17243), (48, 17471), (50, 17477), (59, 17558), (68, 17597), (80, 17702),

Gene: Phaeder\_24 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for Phaeder\_24:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (59, 16263), (74, 16356), (93, 16470), (94, 16479),

Gene: PhailMary\_17 Start: 10388, Stop: 11245, Start Num: 2

Candidate Starts for PhailMary\_17:

(1, 10325), (Start: 2 @10388 has 36 MA's), (11, 10568), (28, 10694), (48, 10940), (50, 10946), (57, 11009), (59, 11027), (67, 11069), (80, 11177),

Gene: Phantastic\_22 Start: 13958, Stop: 14542, Start Num: 20

Candidate Starts for Phantastic\_22:

(13, 13919), (Start: 20 @13958 has 272 MA's), (Start: 24 @13979 has 2 MA's), (Start: 25 @13982 has 1 MA's), (28, 14003), (30, 14018), (44, 14129), (46, 14201), (68, 14357), (74, 14408),

Gene: Pharaoh\_23 Start: 15662, Stop: 16255, Start Num: 21

Candidate Starts for Pharaoh\_23:

(Start: 21 @15662 has 252 MA's), (Start: 25 @15686 has 1 MA's), (58, 16013), (68, 16064), (80, 16169), (94, 16238),

Gene: Phelipe\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Phelipe\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Phighter1804\_22 Start: 14366, Stop: 14956, Start Num: 20

Candidate Starts for Phighter1804\_22:

(Start: 20 @14366 has 272 MA's), (Start: 24 @14387 has 2 MA's), (Start: 25 @14390 has 1 MA's), (44, 14537), (67, 14762), (74, 14816), (77, 14846),

Gene: Phillis\_19 Start: 13012, Stop: 13614, Start Num: 21

Candidate Starts for Phillis\_19:

(Start: 17 @13006 has 1 MA's), (Start: 21 @13012 has 252 MA's), (44, 13186), (45, 13222), (46, 13258), (59, 13375), (60, 13390), (68, 13417), (69, 13423), (74, 13468), (77, 13498),

Gene: PhishRPhriends\_23 Start: 13732, Stop: 14337, Start Num: 20

Candidate Starts for PhishRPhriends\_23:

(Start: 20 @13732 has 272 MA's), (Start: 25 @13756 has 1 MA's), (28, 13777), (30, 13792), (44, 13903), (58, 14080), (68, 14134), (69, 14140), (74, 14185),

Gene: Phlorence\_19 Start: 13613, Stop: 14440, Start Num: 3

Candidate Starts for Phlorence\_19:

(Start: 3 @13613 has 37 MA's), (7, 13742), (Start: 24 @13874 has 2 MA's), (26, 13880), (29, 13913), (32, 13946), (37, 13976), (44, 14036), (50, 14141), (58, 14213), (69, 14270), (84, 14390),

Gene: Phoebe\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for Phoebe\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Phonnegut\_24 Start: 15933, Stop: 16529, Start Num: 21

Candidate Starts for Phonnegut\_24:

(Start: 21 @15933 has 252 MA's), (Start: 25 @15957 has 1 MA's), (28, 15978), (33, 16020), (59, 16296), (68, 16338), (74, 16389), (93, 16503), (94, 16512),

Gene: Phontbonne\_22 Start: 14332, Stop: 14922, Start Num: 20

Candidate Starts for Phontbonne\_22:

(Start: 20 @14332 has 272 MA's), (Start: 24 @14353 has 2 MA's), (Start: 25 @14356 has 1 MA's), (44, 14503), (67, 14728), (74, 14782), (77, 14812),

Gene: Phoxy\_24 Start: 14557, Stop: 15153, Start Num: 20

Candidate Starts for Phoxy\_24:

(Start: 20 @14557 has 272 MA's), (Start: 25 @14581 has 1 MA's), (28, 14602), (30, 14617), (44, 14728), (58, 14905), (69, 14965), (74, 15010),

Gene: Phrankenstein\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Phrankenstein\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Phranny\_25 Start: 14539, Stop: 15135, Start Num: 20

Candidate Starts for Phranny\_25:

(Start: 20 @14539 has 272 MA's), (Start: 25 @14563 has 1 MA's), (28, 14584), (30, 14599), (44, 14710), (58, 14887), (68, 14941), (69, 14947), (74, 14992),

Gene: PickleBack\_19 Start: 13327, Stop: 14154, Start Num: 3

Candidate Starts for PickleBack\_19:

(Start: 3 @13327 has 37 MA's), (7, 13456), (Start: 24 @13588 has 2 MA's), (26, 13594), (29, 13627), (32, 13660), (37, 13690), (44, 13750), (50, 13855), (58, 13927), (69, 13984), (84, 14104),

Gene: Pioneer\_24 Start: 15933, Stop: 16529, Start Num: 21

Candidate Starts for Pioneer\_24:

(Start: 21 @15933 has 252 MA's), (Start: 25 @15957 has 1 MA's), (28, 15978), (33, 16020), (59, 16296), (68, 16338), (74, 16389), (93, 16503), (94, 16512),

Gene: Pipcraft\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Pipcraft\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Piro94\_24 Start: 15608, Stop: 16198, Start Num: 21

Candidate Starts for Piro94\_24:

(Start: 21 @15608 has 252 MA's), (Start: 25 @15632 has 1 MA's), (28, 15653), (48, 15884), (58, 15962), (59, 15971), (70, 16028), (80, 16115), (93, 16175),

Gene: Pistachio\_23 Start: 13539, Stop: 14123, Start Num: 20

Candidate Starts for Pistachio\_23:

(13, 13500), (Start: 20 @13539 has 272 MA's), (Start: 24 @13560 has 2 MA's), (Start: 25 @13563 has 1 MA's), (28, 13584), (30, 13599), (44, 13710), (46, 13782), (68, 13938), (74, 13989), (77, 14019), (80, 14043),

Gene: Pmask\_26 Start: 15201, Stop: 15803, Start Num: 21

Candidate Starts for Pmask\_26:

(Start: 21 @15201 has 252 MA's), (Start: 25 @15225 has 1 MA's), (44, 15378), (59, 15564), (67, 15600), (69, 15609), (70, 15621), (76, 15678),

Gene: Pocahontas\_23 Start: 14528, Stop: 15127, Start Num: 20

Candidate Starts for Pocahontas\_23:

(Start: 20 @14528 has 272 MA's), (Start: 24 @14549 has 2 MA's), (Start: 25 @14552 has 1 MA's), (28, 14573), (30, 14588), (41, 14669), (44, 14705), (46, 14777), (68, 14933), (77, 15014),

Gene: Polymorphads\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Polymorphads\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Polyphemus\_25 Start: 15202, Stop: 15804, Start Num: 21

Candidate Starts for Polyphemus\_25:

(Start: 21 @15202 has 252 MA's), (Start: 25 @15226 has 1 MA's), (44, 15379), (59, 15565), (67, 15601), (69, 15610), (70, 15622), (76, 15679),

Gene: Pomar16\_26 Start: 15026, Stop: 15622, Start Num: 21

Candidate Starts for Pomar16\_26:

(Start: 21 @15026 has 252 MA's), (Start: 25 @15050 has 1 MA's), (28, 15071), (49, 15302), (58, 15377), (59, 15386), (68, 15425), (70, 15443),

Gene: Poompha\_21 Start: 12293, Stop: 12889, Start Num: 20

Candidate Starts for Poompha\_21:

(Start: 20 @12293 has 272 MA's), (Start: 24 @12314 has 2 MA's), (Start: 25 @12317 has 1 MA's), (30, 12353), (44, 12470), (68, 12698), (69, 12704), (77, 12779),

Gene: Popcicle\_23 Start: 14528, Stop: 15127, Start Num: 20



Candidate Starts for Popcicle\_23:

(Start: 20 @14528 has 272 MA's), (Start: 24 @14549 has 2 MA's), (Start: 25 @14552 has 1 MA's), (28, 14573), (30, 14588), (41, 14669), (44, 14705), (46, 14777), (68, 14933), (77, 15014),

Gene: PotatoSplit\_25 Start: 14473, Stop: 15069, Start Num: 20

Candidate Starts for PotatoSplit\_25:

(Start: 20 @14473 has 272 MA's), (Start: 25 @14497 has 1 MA's), (28, 14518), (30, 14533), (44, 14644), (58, 14821), (69, 14881), (74, 14926),

Gene: Power\_23 Start: 15024, Stop: 15614, Start Num: 21

Candidate Starts for Power\_23:

(Start: 21 @15024 has 252 MA's), (Start: 25 @15048 has 1 MA's), (28, 15069), (43, 15174), (48, 15297), (58, 15375), (59, 15384), (68, 15423), (80, 15528), (93, 15588),

Gene: Priamo\_26 Start: 15225, Stop: 15827, Start Num: 21

Candidate Starts for Priamo\_26:

(Start: 21 @15225 has 252 MA's), (Start: 25 @15249 has 1 MA's), (44, 15402), (59, 15588), (67, 15624), (69, 15633), (70, 15645), (76, 15702),

Gene: Prin Ashe11\_20 Start: 13476, Stop: 14303, Start Num: 3

Candidate Starts for Prin Ashe11\_20:

(Start: 3 @13476 has 37 MA's), (7, 13605), (Start: 24 @13737 has 2 MA's), (26, 13743), (29, 13776), (32, 13809), (37, 13839), (44, 13899), (50, 14004), (58, 14076), (69, 14133), (84, 14253),

Gene: Priya\_24 Start: 15931, Stop: 16527, Start Num: 21

Candidate Starts for Priya\_24:

(Start: 21 @15931 has 252 MA's), (Start: 25 @15955 has 1 MA's), (28, 15976), (29, 15982), (59, 16294), (68, 16336), (74, 16387), (86, 16474), (93, 16501), (94, 16510),

Gene: Provolone\_16 Start: 9866, Stop: 10441, Start Num: 21

Candidate Starts for Provolone\_16:

(Start: 21 @9866 has 252 MA's), (48, 10100), (69, 10238), (83, 10355),

Gene: Pukovnik\_25 Start: 16753, Stop: 17343, Start Num: 21

Candidate Starts for Pukovnik\_25:

(Start: 21 @16753 has 252 MA's), (Start: 25 @16777 has 1 MA's), (28, 16798), (48, 17026), (50, 17032), (59, 17113), (68, 17152), (80, 17257), (93, 17317),

Gene: Pumbaa\_22 Start: 14363, Stop: 14953, Start Num: 20

Candidate Starts for Pumbaa\_22:

(Start: 20 @14363 has 272 MA's), (Start: 24 @14384 has 2 MA's), (Start: 25 @14387 has 1 MA's), (44, 14534), (67, 14759), (74, 14813), (77, 14843),

Gene: Puppy\_23 Start: 13611, Stop: 14195, Start Num: 20

Candidate Starts for Puppy\_23:

(13, 13572), (Start: 20 @13611 has 272 MA's), (Start: 24 @13632 has 2 MA's), (Start: 25 @13635 has 1 MA's), (28, 13656), (30, 13671), (44, 13782), (46, 13854), (68, 14010), (74, 14061), (77, 14091),

Gene: PurpleHaze\_24 Start: 14546, Stop: 15142, Start Num: 20

Candidate Starts for PurpleHaze\_24:

(Start: 20 @14546 has 272 MA's), (Start: 25 @14570 has 1 MA's), (28, 14591), (30, 14606), (44, 14717), (58, 14894), (68, 14948), (69, 14954), (74, 14999),

Gene: Qobbit\_24 Start: 15930, Stop: 16526, Start Num: 21

Candidate Starts for Qobbit\_24:

(Start: 21 @15930 has 252 MA's), (Start: 25 @15954 has 1 MA's), (28, 15975), (33, 16017), (59, 16293), (68, 16335), (74, 16386), (93, 16500), (94, 16509),

Gene: QueenB2\_23 Start: 15099, Stop: 15683, Start Num: 21

Candidate Starts for QueenB2\_23:

(Start: 21 @15099 has 252 MA's), (Start: 25 @15123 has 1 MA's), (28, 15144), (45, 15306), (58, 15447), (59, 15456), (65, 15486), (68, 15495), (70, 15513), (74, 15546), (80, 15600), (85, 15624), (93, 15660),

Gene: QueenBeesly\_23 Start: 15024, Stop: 15614, Start Num: 21

Candidate Starts for QueenBeesly\_23:

(Start: 21 @15024 has 252 MA's), (Start: 25 @15048 has 1 MA's), (28, 15069), (43, 15174), (48, 15297), (58, 15375), (59, 15384), (68, 15423), (72, 15447), (80, 15528), (93, 15588),

Gene: QuinnKiro\_22 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for QuinnKiro\_22:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Quokka\_21 Start: 14011, Stop: 14601, Start Num: 20

Candidate Starts for Quokka\_21:

(Start: 20 @14011 has 272 MA's), (Start: 25 @14035 has 1 MA's), (28, 14056), (33, 14098), (48, 14284), (58, 14362), (59, 14371), (65, 14401), (68, 14410), (70, 14428),

Gene: RER2\_11 Start: 7250, Stop: 8107, Start Num: 2

Candidate Starts for RER2\_11:

(1, 7187), (Start: 2 @7250 has 36 MA's), (9, 7391), (Start: 21 @7502 has 252 MA's), (28, 7556), (48, 7802), (50, 7808), (57, 7871), (59, 7889), (67, 7931), (80, 8039), (92, 8099),

Gene: RGL3\_11 Start: 7217, Stop: 8077, Start Num: 2

Candidate Starts for RGL3\_11:

(1, 7154), (Start: 2 @7217 has 36 MA's), (6, 7316), (28, 7523), (34, 7574), (48, 7775), (50, 7781), (57, 7844), (58, 7853), (59, 7862), (62, 7886), (67, 7904), (69, 7913), (80, 8012),

Gene: Rachaly\_26 Start: 16754, Stop: 17335, Start Num: 21

Candidate Starts for Rachaly\_26:

(Start: 21 @16754 has 252 MA's), (Start: 25 @16778 has 1 MA's), (28, 16799), (48, 17027), (58, 17105), (59, 17114), (68, 17153), (80, 17258),

Gene: Rahalelujah\_22 Start: 13967, Stop: 14563, Start Num: 21

Candidate Starts for Rahalelujah\_22:

(Start: 21 @13967 has 252 MA's), (Start: 25 @13991 has 1 MA's), (28, 14012), (29, 14018), (65, 14363), (68, 14372), (69, 14378), (74, 14423), (93, 14537), (94, 14546),

Gene: Rasputin\_18 Start: 10346, Stop: 11203, Start Num: 2

Candidate Starts for Rasputin\_18:

(1, 10283), (Start: 2 @10346 has 36 MA's), (Start: 21 @10598 has 252 MA's), (28, 10652), (48, 10898), (50, 10904), (57, 10967), (67, 11027), (69, 11036), (80, 11135),

Gene: ReMo\_25 Start: 14232, Stop: 14834, Start Num: 21

Candidate Starts for ReMo\_25:

(Start: 21 @14232 has 252 MA's), (Start: 24 @14253 has 2 MA's), (27, 14268), (28, 14277), (44, 14406), (45, 14442),

Gene: Reba\_25 Start: 14212, Stop: 14808, Start Num: 20

Candidate Starts for Reba\_25:

(Start: 20 @14212 has 272 MA's), (Start: 25 @14236 has 1 MA's), (28, 14257), (30, 14272), (44, 14383), (58, 14560), (68, 14614), (69, 14620), (74, 14665),

Gene: Rebeuca\_23 Start: 14383, Stop: 14979, Start Num: 20

Candidate Starts for Rebeuca\_23:

(13, 14344), (Start: 20 @14383 has 272 MA's), (Start: 24 @14404 has 2 MA's), (Start: 25 @14407 has 1 MA's), (30, 14443), (44, 14560), (57, 14728), (69, 14794), (72, 14812), (77, 14869),

Gene: RedRock\_26 Start: 17037, Stop: 17630, Start Num: 21

Candidate Starts for RedRock\_26:

(Start: 21 @17037 has 252 MA's), (Start: 25 @17061 has 1 MA's), (28, 17082), (45, 17247), (48, 17310), (58, 17388), (59, 17397), (70, 17454), (80, 17541),

Gene: Refuge\_26 Start: 17440, Stop: 18033, Start Num: 21

Candidate Starts for Refuge\_26:

(Start: 21 @17440 has 252 MA's), (Start: 25 @17464 has 1 MA's), (80, 17950), (94, 18019),

Gene: Relief\_22 Start: 14386, Stop: 14976, Start Num: 20

Candidate Starts for Relief\_22:

(Start: 20 @14386 has 272 MA's), (Start: 24 @14407 has 2 MA's), (Start: 25 @14410 has 1 MA's), (44, 14557), (67, 14782), (74, 14836), (77, 14866),

Gene: Remus\_25 Start: 14193, Stop: 14795, Start Num: 21

Candidate Starts for Remus\_25:

(Start: 21 @14193 has 252 MA's), (Start: 24 @14214 has 2 MA's), (27, 14229), (28, 14238), (44, 14367), (45, 14403),

Gene: ResDef\_23 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for ResDef\_23:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Retro23\_23 Start: 15172, Stop: 15756, Start Num: 21

Candidate Starts for Retro23\_23:

(Start: 21 @15172 has 252 MA's), (Start: 25 @15196 has 1 MA's), (28, 15217), (41, 15313), (58, 15526), (59, 15535), (65, 15565), (70, 15592), (74, 15625), (80, 15679),

Gene: RexFury\_18 Start: 10409, Stop: 11266, Start Num: 2

Candidate Starts for RexFury\_18:

(1, 10346), (Start: 2 @10409 has 36 MA's), (9, 10550), (Start: 21 @10661 has 252 MA's), (28, 10715), (48, 10961), (50, 10967), (57, 11030), (59, 11048), (67, 11090), (80, 11198),

Gene: Rhodalysa\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Rhodalysa\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: RhynO\_23 Start: 14353, Stop: 14949, Start Num: 20

Candidate Starts for RhynO\_23:

(13, 14314), (Start: 20 @14353 has 272 MA's), (Start: 24 @14374 has 2 MA's), (Start: 25 @14377 has 1 MA's), (30, 14413), (44, 14530), (57, 14698), (69, 14764), (72, 14782), (77, 14839),

Gene: Rifter\_26 Start: 15182, Stop: 15784, Start Num: 21

Candidate Starts for Rifter\_26:

(Start: 21 @15182 has 252 MA's), (Start: 25 @15206 has 1 MA's), (43, 15335), (44, 15359), (45, 15395), (59, 15545), (67, 15581), (69, 15590), (70, 15602), (76, 15659),

Gene: Roary\_19 Start: 12997, Stop: 13605, Start Num: 17

Candidate Starts for Roary\_19:

(Start: 17 @12997 has 1 MA's), (Start: 21 @13003 has 252 MA's), (44, 13177), (45, 13213), (46, 13249), (48, 13279), (59, 13366), (60, 13381), (68, 13408), (74, 13459), (77, 13489),

Gene: Rockstar\_22 Start: 13886, Stop: 14497, Start Num: 20

Candidate Starts for Rockstar\_22:

(Start: 20 @13886 has 272 MA's), (Start: 24 @13907 has 2 MA's), (Start: 25 @13910 has 1 MA's), (28, 13931), (30, 13946), (44, 14063), (68, 14291),

Gene: Roksolana\_26 Start: 15210, Stop: 15812, Start Num: 21

Candidate Starts for Roksolana\_26:

(Start: 21 @15210 has 252 MA's), (Start: 25 @15234 has 1 MA's), (43, 15363), (44, 15387), (59, 15573), (67, 15609), (69, 15618), (70, 15630), (76, 15687),

Gene: Romney\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Romney\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Roosevelt\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Roosevelt\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Rosa24\_21 Start: 14361, Stop: 14951, Start Num: 20

Candidate Starts for Rosa24\_21:

(Start: 20 @14361 has 272 MA's), (Start: 24 @14382 has 2 MA's), (Start: 25 @14385 has 1 MA's), (44, 14532), (67, 14757), (74, 14811), (77, 14841),

Gene: Rosalind\_25 Start: 14354, Stop: 14956, Start Num: 21

Candidate Starts for Rosalind\_25:

(Start: 21 @14354 has 252 MA's), (Start: 24 @14375 has 2 MA's), (27, 14390), (28, 14399), (44, 14528), (45, 14564),

Gene: Rowdy\_25 Start: 14264, Stop: 14860, Start Num: 20

Candidate Starts for Rowdy\_25:

(13, 14225), (Start: 20 @14264 has 272 MA's), (Start: 24 @14285 has 2 MA's), (Start: 25 @14288 has 1 MA's), (30, 14324), (44, 14441), (57, 14609), (69, 14675), (72, 14693), (77, 14750),

Gene: Ruin\_22 Start: 14384, Stop: 14974, Start Num: 20

Candidate Starts for Ruin\_22:

(Start: 20 @14384 has 272 MA's), (Start: 24 @14405 has 2 MA's), (Start: 25 @14408 has 1 MA's), (44, 14555), (67, 14780), (74, 14834), (77, 14864),

Gene: Rummer\_24 Start: 14557, Stop: 15153, Start Num: 20

Candidate Starts for Rummer\_24:

(Start: 20 @14557 has 272 MA's), (Start: 25 @14581 has 1 MA's), (28, 14602), (30, 14617), (44, 14728), (58, 14905), (69, 14965), (74, 15010),

Gene: RyeScarlet\_25 Start: 15904, Stop: 16500, Start Num: 21

Candidate Starts for RyeScarlet\_25:

(Start: 21 @15904 has 252 MA's), (Start: 25 @15928 has 1 MA's), (28, 15949), (33, 15991), (59, 16267), (68, 16309), (74, 16360), (93, 16474), (94, 16483),

Gene: Sabertooth\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Sabertooth\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Sabia\_24 Start: 14466, Stop: 15062, Start Num: 20

Candidate Starts for Sabia\_24:

(Start: 20 @14466 has 272 MA's), (Start: 25 @14490 has 1 MA's), (28, 14511), (30, 14526), (44, 14637), (58, 14814), (69, 14874), (74, 14919),

Gene: Sabinator\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for Sabinator\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Sachima\_22 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for Sachima\_22:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (33, 15987), (59, 16263), (68, 16305), (74, 16356), (93, 16470), (94, 16479),

Gene: Saftant\_15 Start: 10158, Stop: 10715, Start Num: 21

Candidate Starts for Saftant\_15:

(Start: 21 @10158 has 252 MA's), (48, 10392), (63, 10506), (69, 10530), (83, 10647),

Gene: Saintus\_19 Start: 13018, Stop: 13620, Start Num: 21

Candidate Starts for Saintus\_19:

(Start: 17 @13012 has 1 MA's), (Start: 21 @13018 has 252 MA's), (44, 13192), (45, 13228), (46, 13264), (48, 13294), (59, 13381), (60, 13396), (68, 13423), (74, 13474), (77, 13504),

Gene: Salz\_23 Start: 15630, Stop: 16244, Start Num: 21

Candidate Starts for Salz\_23:

(Start: 21 @15630 has 252 MA's), (23, 15636), (28, 15675), (36, 15735), (45, 15843), (48, 15906), (50, 15912), (58, 15984), (74, 16083),

Gene: SaturnRing\_22 Start: 13992, Stop: 14576, Start Num: 20

Candidate Starts for SaturnRing\_22:

(13, 13953), (Start: 20 @13992 has 272 MA's), (Start: 24 @14013 has 2 MA's), (Start: 25 @14016 has 1 MA's), (28, 14037), (30, 14052), (44, 14163), (46, 14235), (68, 14391), (74, 14442), (77, 14472), (80, 14496),

Gene: Scamp\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Scamp\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Scherzo\_24 Start: 15933, Stop: 16529, Start Num: 21

Candidate Starts for Scherzo\_24:

(Start: 21 @15933 has 252 MA's), (Start: 25 @15957 has 1 MA's), (28, 15978), (33, 16020), (59, 16296), (68, 16338), (74, 16389), (93, 16503), (94, 16512),

Gene: Scorpio\_20 Start: 13320, Stop: 14150, Start Num: 3

Candidate Starts for Scorpio\_20:

(Start: 3 @13320 has 37 MA's), (7, 13449), (12, 13503), (Start: 24 @13581 has 2 MA's), (26, 13587), (28, 13614), (31, 13647), (32, 13653), (34, 13659), (37, 13686), (44, 13746), (50, 13851), (58, 13923), (59, 13932), (67, 13971), (69, 13980), (84, 14100),

Gene: Scout\_22 Start: 13292, Stop: 13876, Start Num: 20

Candidate Starts for Scout\_22:

(13, 13253), (Start: 20 @13292 has 272 MA's), (Start: 24 @13313 has 2 MA's), (Start: 25 @13316 has 1 MA's), (28, 13337), (30, 13352), (44, 13463), (46, 13535), (68, 13691), (74, 13742), (77, 13772), (80, 13796),

Gene: SemperFi\_25 Start: 15451, Stop: 16032, Start Num: 21

Candidate Starts for SemperFi\_25:

(Start: 21 @15451 has 252 MA's), (Start: 25 @15475 has 1 MA's), (28, 15496), (33, 15538), (43, 15601), (48, 15724), (58, 15802), (59, 15811), (68, 15850), (80, 15955), (93, 16015),

Gene: SenorClean\_21 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for SenorClean\_21:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Serenity\_22 Start: 14023, Stop: 14619, Start Num: 21

Candidate Starts for Serenity\_22:

(Start: 21 @14023 has 252 MA's), (Start: 24 @14044 has 2 MA's), (Start: 25 @14047 has 1 MA's), (28, 14068), (33, 14110), (48, 14296), (58, 14374), (59, 14383), (65, 14413), (68, 14422), (70, 14440), (94, 14596),

Gene: Severus\_21 Start: 12293, Stop: 12889, Start Num: 20

Candidate Starts for Severus\_21:

(Start: 20 @12293 has 272 MA's), (Start: 24 @12314 has 2 MA's), (Start: 25 @12317 has 1 MA's), (30, 12353), (44, 12470), (68, 12698), (69, 12704), (77, 12779),

Gene: Shaka\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Shaka\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Sham4\_23 Start: 15636, Stop: 16250, Start Num: 21

Candidate Starts for Sham4\_23:

(Start: 21 @15636 has 252 MA's), (23, 15642), (28, 15681), (36, 15741), (45, 15849), (48, 15912), (50, 15918), (58, 15990), (74, 16089),

Gene: Shapes\_25 Start: 14264, Stop: 14860, Start Num: 20

Candidate Starts for Shapes\_25:

(13, 14225), (Start: 20 @14264 has 272 MA's), (Start: 24 @14285 has 2 MA's), (Start: 25 @14288 has 1 MA's), (30, 14324), (44, 14441), (57, 14609), (69, 14675), (72, 14693), (77, 14750),

Gene: ShayRa\_26 Start: 14354, Stop: 14956, Start Num: 21

Candidate Starts for ShayRa\_26:

(Start: 21 @14354 has 252 MA's), (Start: 24 @14375 has 2 MA's), (27, 14390), (28, 14399), (44, 14528), (45, 14564),

Gene: SheaKeira\_23 Start: 14062, Stop: 14658, Start Num: 21

Candidate Starts for SheaKeira\_23:

(Start: 21 @14062 has 252 MA's), (Start: 25 @14086 has 1 MA's), (28, 14107), (51, 14347), (68, 14467), (69, 14473),

Gene: Sheen\_24 Start: 16124, Stop: 16708, Start Num: 21

Candidate Starts for Sheen\_24:

(Start: 21 @16124 has 252 MA's), (Start: 24 @16145 has 2 MA's), (Start: 25 @16148 has 1 MA's), (28, 16169), (30, 16184), (44, 16295), (47, 16370), (77, 16604),

Gene: SheldonCooper\_23 Start: 14701, Stop: 15291, Start Num: 20

Candidate Starts for SheldonCooper\_23:

(Start: 20 @14701 has 272 MA's), (Start: 24 @14722 has 2 MA's), (Start: 25 @14725 has 1 MA's), (44, 14872), (67, 15097), (74, 15151), (77, 15181),

Gene: Shuman\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Shuman\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Shygu2\_22 Start: 14391, Stop: 14978, Start Num: 20

Candidate Starts for Shygu2\_22:

(Start: 20 @14391 has 272 MA's), (Start: 24 @14412 has 2 MA's), (Start: 25 @14415 has 1 MA's), (30, 14451), (44, 14568), (70, 14814), (74, 14847), (77, 14877),

Gene: Skipitt\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Skipitt\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Sknot\_24 Start: 15150, Stop: 15740, Start Num: 21

Candidate Starts for Sknot\_24:

(Start: 21 @15150 has 252 MA's), (Start: 25 @15174 has 1 MA's), (28, 15195), (48, 15426), (58, 15504), (59, 15513), (70, 15570), (80, 15657), (93, 15717),

Gene: Smeadley\_19 Start: 13036, Stop: 13638, Start Num: 21

Candidate Starts for Smeadley\_19:

(Start: 17 @13030 has 1 MA's), (Start: 21 @13036 has 252 MA's), (44, 13210), (45, 13246), (46, 13282), (48, 13312), (59, 13399), (60, 13414), (68, 13441), (74, 13492), (77, 13522),

Gene: Smeagan\_25 Start: 15591, Stop: 16181, Start Num: 21

Candidate Starts for Smeagan\_25:

(Start: 21 @15591 has 252 MA's), (Start: 25 @15615 has 1 MA's), (28, 15636), (45, 15804), (48, 15867), (51, 15876), (58, 15945), (59, 15954), (65, 15984), (70, 16011), (74, 16044), (80, 16098),

Gene: SmellyB\_26 Start: 15209, Stop: 15811, Start Num: 21

Candidate Starts for SmellyB\_26:

(Start: 21 @15209 has 252 MA's), (Start: 25 @15233 has 1 MA's), (44, 15386), (59, 15572), (67, 15608), (69, 15617), (70, 15629), (76, 15686),

Gene: SnapTap\_23 Start: 15024, Stop: 15614, Start Num: 21

Candidate Starts for SnapTap\_23:

(Start: 21 @15024 has 252 MA's), (Start: 25 @15048 has 1 MA's), (28, 15069), (43, 15174), (48, 15297), (58, 15375), (59, 15384), (68, 15423), (80, 15528), (93, 15588),

Gene: Snape\_23 Start: 15636, Stop: 16250, Start Num: 21

Candidate Starts for Snape\_23:

(Start: 21 @15636 has 252 MA's), (23, 15642), (28, 15681), (36, 15741), (45, 15849), (48, 15912), (50, 15918), (58, 15990), (74, 16089),

Gene: Snickers\_24 Start: 14447, Stop: 15043, Start Num: 20

Candidate Starts for Snickers\_24:

(Start: 20 @14447 has 272 MA's), (Start: 25 @14471 has 1 MA's), (28, 14492), (30, 14507), (44, 14618), (58, 14795), (69, 14855), (74, 14900),

Gene: SoYo\_24 Start: 14384, Stop: 14980, Start Num: 20

Candidate Starts for SoYo\_24:

(Start: 20 @14384 has 272 MA's), (Start: 25 @14408 has 1 MA's), (28, 14429), (30, 14444), (44, 14555), (58, 14732), (69, 14792), (74, 14837),

Gene: SoilDragon\_24 Start: 14156, Stop: 14752, Start Num: 20

Candidate Starts for SoilDragon\_24:

(Start: 20 @14156 has 272 MA's), (Start: 25 @14180 has 1 MA's), (28, 14201), (30, 14216), (44, 14327), (58, 14504), (68, 14558), (69, 14564), (74, 14609),

Gene: SororFago\_22 Start: 14230, Stop: 14817, Start Num: 18

Candidate Starts for SororFago\_22:

(8, 14125), (Start: 18 @14230 has 3 MA's), (Start: 25 @14254 has 1 MA's), (28, 14275), (48, 14506), (59, 14593), (68, 14632), (80, 14737), (93, 14797),

Gene: Soshari\_26 Start: 14556, Stop: 15152, Start Num: 20

Candidate Starts for Soshari\_26:

(Start: 20 @14556 has 272 MA's), (Start: 25 @14580 has 1 MA's), (28, 14601), (30, 14616), (44, 14727), (58, 14904), (69, 14964), (74, 15009),

Gene: Soups\_25 Start: 14354, Stop: 14956, Start Num: 21

Candidate Starts for Soups\_25:

(Start: 21 @14354 has 252 MA's), (Start: 24 @14375 has 2 MA's), (27, 14390), (28, 14399), (44, 14528), (45, 14564),

Gene: Sparxx\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for Sparxx\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Speedwell\_20 Start: 11882, Stop: 12448, Start Num: 21

Candidate Starts for Speedwell\_20:

(Start: 21 @11882 has 252 MA's), (48, 12116), (63, 12230), (69, 12254), (81, 12362), (83, 12371),



Gene: Spike509\_24 Start: 14557, Stop: 15153, Start Num: 20

Candidate Starts for Spike509\_24:

(Start: 20 @14557 has 272 MA's), (Start: 25 @14581 has 1 MA's), (28, 14602), (30, 14617), (44, 14728), (58, 14905), (69, 14965), (74, 15010),

Gene: Spino\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Spino\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Spouty\_24 Start: 15930, Stop: 16526, Start Num: 21

Candidate Starts for Spouty\_24:

(Start: 21 @15930 has 252 MA's), (Start: 25 @15954 has 1 MA's), (28, 15975), (29, 15981), (59, 16293), (68, 16335), (74, 16386), (86, 16473), (93, 16500), (94, 16509),

Gene: StCroix\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for StCroix\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Stagni\_24 Start: 14475, Stop: 15071, Start Num: 20

Candidate Starts for Stagni\_24:

(Start: 20 @14475 has 272 MA's), (Start: 25 @14499 has 1 MA's), (28, 14520), (30, 14535), (44, 14646), (58, 14823), (69, 14883), (74, 14928),

Gene: StarStuff\_26 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for StarStuff\_26:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: Stasia\_23 Start: 14829, Stop: 15422, Start Num: 20

Candidate Starts for Stasia\_23:

(Start: 20 @14829 has 272 MA's), (Start: 24 @14850 has 2 MA's), (Start: 25 @14853 has 1 MA's), (30, 14889), (44, 15006), (57, 15174), (74, 15285), (77, 15315),

Gene: Steamy\_24 Start: 15670, Stop: 16260, Start Num: 21

Candidate Starts for Steamy\_24:

(Start: 21 @15670 has 252 MA's), (Start: 25 @15694 has 1 MA's), (80, 16177), (94, 16246),

Gene: StepMih\_24 Start: 14466, Stop: 15062, Start Num: 20

Candidate Starts for StepMih\_24:

(Start: 20 @14466 has 272 MA's), (Start: 25 @14490 has 1 MA's), (28, 14511), (30, 14526), (44, 14637), (58, 14814), (69, 14874), (74, 14919),

Gene: Stephig9\_19 Start: 13017, Stop: 13619, Start Num: 21

Candidate Starts for Stephig9\_19:

(Start: 17 @13011 has 1 MA's), (Start: 21 @13017 has 252 MA's), (44, 13191), (45, 13227), (46, 13263), (48, 13293), (59, 13380), (60, 13395), (68, 13422), (74, 13473), (77, 13503),

Gene: Stink\_23 Start: 14679, Stop: 15266, Start Num: 20

Candidate Starts for Stink\_23:

(Start: 20 @14679 has 272 MA's), (Start: 24 @14700 has 2 MA's), (Start: 25 @14703 has 1 MA's), (30, 14739), (44, 14856), (70, 15102), (74, 15135), (77, 15165),

Gene: Strosahl\_25 Start: 14193, Stop: 14795, Start Num: 21

Candidate Starts for Strosahl\_25:

(Start: 21 @14193 has 252 MA's), (Start: 24 @14214 has 2 MA's), (27, 14229), (28, 14238), (44, 14367), (45, 14403),

Gene: Sunhee\_21 Start: 14286, Stop: 14870, Start Num: 21

Candidate Starts for Sunhee\_21:

(Start: 21 @14286 has 252 MA's), (Start: 25 @14310 has 1 MA's), (28, 14331), (41, 14427), (68, 14688), (69, 14694), (80, 14793),

Gene: SuperAwesome\_26 Start: 15200, Stop: 15802, Start Num: 21

Candidate Starts for SuperAwesome\_26:

(Start: 21 @15200 has 252 MA's), (Start: 25 @15224 has 1 MA's), (44, 15377), (59, 15563), (67, 15599), (69, 15608), (70, 15620), (76, 15677),

Gene: SuperCallie99\_26 Start: 15199, Stop: 15801, Start Num: 21

Candidate Starts for SuperCallie99\_26:

(Start: 21 @15199 has 252 MA's), (Start: 25 @15223 has 1 MA's), (44, 15376), (59, 15562), (67, 15598), (69, 15607), (70, 15619), (76, 15676),

Gene: Superchunk\_22 Start: 13739, Stop: 14335, Start Num: 20

Candidate Starts for Superchunk\_22:

(Start: 20 @13739 has 272 MA's), (Start: 24 @13760 has 2 MA's), (Start: 25 @13763 has 1 MA's), (28, 13784), (48, 14012), (58, 14090), (59, 14099), (65, 14129), (67, 14135), (70, 14156), (80, 14243),

Gene: Swann\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for Swann\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: SweetiePie\_23 Start: 15024, Stop: 15614, Start Num: 21

Candidate Starts for SweetiePie\_23:

(Start: 21 @15024 has 252 MA's), (Start: 25 @15048 has 1 MA's), (28, 15069), (43, 15174), (48, 15297), (58, 15375), (59, 15384), (68, 15423), (80, 15528), (93, 15588),

Gene: SwirlSquare\_25 Start: 13913, Stop: 14509, Start Num: 20

Candidate Starts for SwirlSquare\_25:

(Start: 20 @13913 has 272 MA's), (Start: 25 @13937 has 1 MA's), (28, 13958), (40, 14045), (48, 14186), (58, 14264), (59, 14273), (65, 14303), (67, 14309), (70, 14330), (80, 14417),

Gene: Swirley\_19 Start: 13478, Stop: 14305, Start Num: 3

Candidate Starts for Swirley\_19:

(Start: 3 @13478 has 37 MA's), (7, 13607), (Start: 24 @13739 has 2 MA's), (26, 13745), (29, 13778), (32, 13811), (37, 13841), (44, 13901), (50, 14006), (58, 14078), (69, 14135), (84, 14255),

Gene: Switzerland\_25 Start: 14347, Stop: 14949, Start Num: 21

Candidate Starts for Switzerland\_25:

(Start: 21 @14347 has 252 MA's), (Start: 24 @14368 has 2 MA's), (27, 14383), (28, 14392), (44, 14521), (45, 14557),

Gene: SydNat\_19 Start: 13583, Stop: 14443, Start Num: 3

Candidate Starts for SydNat\_19:

(Start: 3 @13583 has 37 MA's), (7, 13712), (14, 13799), (Start: 24 @13853 has 2 MA's), (29, 13892), (32, 13931), (37, 13979), (43, 14015), (44, 14039), (50, 14144), (58, 14216), (76, 14342), (84, 14393),

Gene: TNguyen7\_22 Start: 13962, Stop: 14546, Start Num: 20

Candidate Starts for TNguyen7\_22:

(13, 13923), (Start: 20 @13962 has 272 MA's), (Start: 24 @13983 has 2 MA's), (Start: 25 @13986 has 1 MA's), (28, 14007), (30, 14022), (44, 14133), (46, 14205), (68, 14361), (74, 14412), (77, 14442),

Gene: TWAMP\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for TWAMP\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Takoda\_18 Start: 10338, Stop: 11195, Start Num: 2

Candidate Starts for Takoda\_18:

(1, 10275), (Start: 2 @10338 has 36 MA's), (28, 10644), (48, 10890), (50, 10896), (57, 10959), (59, 10977), (65, 11013), (67, 11019), (80, 11127),

Gene: Taquarus\_22 Start: 14391, Stop: 14981, Start Num: 20

Candidate Starts for Taquarus\_22:

(Start: 20 @14391 has 272 MA's), (Start: 24 @14412 has 2 MA's), (Start: 25 @14415 has 1 MA's), (44, 14562), (67, 14787), (74, 14841), (77, 14871),

Gene: TarsusIV\_23 Start: 15124, Stop: 15717, Start Num: 21

Candidate Starts for TarsusIV\_23:

(Start: 21 @15124 has 252 MA's), (Start: 25 @15148 has 1 MA's), (28, 15169), (29, 15175), (48, 15400), (59, 15487), (65, 15517), (68, 15526), (70, 15544), (74, 15577), (80, 15631), (93, 15691),

Gene: Tarynearal\_18 Start: 13505, Stop: 14332, Start Num: 3

Candidate Starts for Tarynearal\_18:

(Start: 3 @13505 has 37 MA's), (7, 13634), (Start: 24 @13766 has 2 MA's), (26, 13772), (29, 13805), (32, 13838), (37, 13868), (44, 13928), (50, 14033), (58, 14105), (69, 14162), (84, 14282),

Gene: Taurus\_24 Start: 14471, Stop: 15067, Start Num: 20

Candidate Starts for Taurus\_24:

(Start: 20 @14471 has 272 MA's), (Start: 25 @14495 has 1 MA's), (28, 14516), (30, 14531), (44, 14642), (58, 14819), (69, 14879), (74, 14924),

Gene: Temprado\_27 Start: 15205, Stop: 15807, Start Num: 21

Candidate Starts for Temprado\_27:

(Start: 21 @15205 has 252 MA's), (Start: 25 @15229 has 1 MA's), (43, 15358), (44, 15382), (59, 15568), (67, 15604), (69, 15613), (70, 15625), (76, 15682),

Gene: Terrific\_27 Start: 15604, Stop: 16194, Start Num: 21

Candidate Starts for Terrific\_27:

(Start: 21 @15604 has 252 MA's), (Start: 25 @15628 has 1 MA's), (28, 15649), (48, 15880), (58, 15958), (59, 15967), (70, 16024), (80, 16111), (93, 16171),

Gene: Texage\_22 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Texage\_22:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Thanksgivukkah\_22 Start: 14392, Stop: 14982, Start Num: 20

Candidate Starts for Thanksgivukkah\_22:

(Start: 20 @14392 has 272 MA's), (Start: 24 @14413 has 2 MA's), (Start: 25 @14416 has 1 MA's), (44, 14563), (67, 14788), (74, 14842), (77, 14872),

Gene: Theia\_17 Start: 13444, Stop: 14271, Start Num: 3

Candidate Starts for Theia\_17:

(Start: 3 @13444 has 37 MA's), (7, 13573), (Start: 24 @13705 has 2 MA's), (26, 13711), (29, 13744), (32, 13777), (37, 13807), (44, 13867), (50, 13972), (58, 14044), (69, 14101), (84, 14221),

Gene: Tiffany\_24 Start: 14367, Stop: 14963, Start Num: 20

Candidate Starts for Tiffany\_24:

(Start: 20 @14367 has 272 MA's), (Start: 25 @14391 has 1 MA's), (28, 14412), (30, 14427), (44, 14538), (58, 14715), (69, 14775), (74, 14820),

Gene: Tiger\_19 Start: 13332, Stop: 14159, Start Num: 3

Candidate Starts for Tiger\_19:

(Start: 3 @13332 has 37 MA's), (7, 13461), (Start: 24 @13593 has 2 MA's), (26, 13599), (29, 13632), (32, 13665), (37, 13695), (44, 13755), (50, 13860), (58, 13932), (69, 13989), (84, 14109),

Gene: Timothy\_23 Start: 15633, Stop: 16247, Start Num: 21

Candidate Starts for Timothy\_23:

(Start: 21 @15633 has 252 MA's), (23, 15639), (28, 15678), (36, 15738), (45, 15846), (48, 15909), (50, 15915), (58, 15987), (74, 16086),

Gene: Timshel\_23 Start: 16007, Stop: 16594, Start Num: 21

Candidate Starts for Timshel\_23:

(Start: 21 @16007 has 252 MA's), (Start: 24 @16028 has 2 MA's), (Start: 25 @16031 has 1 MA's), (44, 16184), (47, 16259), (67, 16409), (77, 16493),

Gene: TinaFeyge\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for TinaFeyge\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: TinyPebbles\_24 Start: 14556, Stop: 15152, Start Num: 20

Candidate Starts for TinyPebbles\_24:

(Start: 20 @14556 has 272 MA's), (Start: 25 @14580 has 1 MA's), (28, 14601), (30, 14616), (44, 14727), (58, 14904), (69, 14964), (74, 15009),

Gene: TinyTimmy\_23 Start: 15676, Stop: 16290, Start Num: 21

Candidate Starts for TinyTimmy\_23:

(Start: 21 @15676 has 252 MA's), (23, 15682), (28, 15721), (36, 15781), (45, 15889), (48, 15952), (50, 15958), (58, 16030), (74, 16129),

Gene: Tinybot\_21 Start: 14366, Stop: 14956, Start Num: 20

Candidate Starts for Tinybot\_21:

(Start: 20 @14366 has 272 MA's), (Start: 24 @14387 has 2 MA's), (Start: 25 @14390 has 1 MA's), (44, 14537), (67, 14762), (74, 14816), (77, 14846),

Gene: TipsytheTRex\_22 Start: 14188, Stop: 14784, Start Num: 21

Candidate Starts for TipsytheTRex\_22:

(Start: 21 @14188 has 252 MA's), (Start: 24 @14209 has 2 MA's), (Start: 25 @14212 has 1 MA's), (28, 14233), (33, 14275), (48, 14461), (58, 14539), (59, 14548), (65, 14578), (68, 14587), (70, 14605), (94, 14761),

Gene: TiroTheta9\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for TiroTheta9\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Toaka\_22 Start: 14253, Stop: 14849, Start Num: 21

Candidate Starts for Toaka\_22:

(Start: 21 @14253 has 252 MA's), (Start: 25 @14277 has 1 MA's), (28, 14298), (65, 14649), (68, 14658), (69, 14664), (74, 14709), (93, 14823), (94, 14832),

Gene: Todacoro\_23 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Todacoro\_23:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Tomathan\_26 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for Tomathan\_26:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: ToneTone\_24 Start: 15123, Stop: 15725, Start Num: 21

Candidate Starts for ToneTone\_24:

(Start: 21 @15123 has 252 MA's), (Start: 25 @15147 has 1 MA's), (43, 15276), (44, 15300), (45, 15336), (59, 15486), (67, 15522), (69, 15531), (70, 15543), (76, 15600),

Gene: Topanga\_22 Start: 14336, Stop: 14932, Start Num: 20

Candidate Starts for Topanga\_22:

(13, 14297), (Start: 20 @14336 has 272 MA's), (Start: 24 @14357 has 2 MA's), (Start: 25 @14360 has 1 MA's), (30, 14396), (44, 14513), (67, 14738), (69, 14747), (74, 14792), (77, 14822),

Gene: Toro\_25 Start: 16066, Stop: 16650, Start Num: 21

Candidate Starts for Toro\_25:

(Start: 21 @16066 has 252 MA's), (Start: 24 @16087 has 2 MA's), (Start: 25 @16090 has 1 MA's), (28, 16111), (30, 16126), (44, 16237), (47, 16312), (77, 16546),

Gene: Travvers\_26 Start: 14985, Stop: 15581, Start Num: 21

Candidate Starts for Travvers\_26:

(Start: 21 @14985 has 252 MA's), (Start: 25 @15009 has 1 MA's), (28, 15030), (49, 15261), (58, 15336), (59, 15345), (68, 15384), (70, 15402),

Gene: Trike\_20 Start: 12301, Stop: 12897, Start Num: 20

Candidate Starts for Trike\_20:

(Start: 20 @12301 has 272 MA's), (Start: 24 @12322 has 2 MA's), (Start: 25 @12325 has 1 MA's), (30, 12361), (44, 12478), (68, 12706), (69, 12712), (77, 12787),

Gene: Tristan\_24 Start: 16870, Stop: 17460, Start Num: 19

Candidate Starts for Tristan\_24:

(Start: 19 @16870 has 4 MA's), (Start: 25 @16894 has 1 MA's), (48, 17143), (50, 17149), (59, 17230), (68, 17269), (70, 17287), (74, 17320), (80, 17374), (93, 17434),

Gene: Trixie\_26 Start: 16751, Stop: 17341, Start Num: 21

Candidate Starts for Trixie\_26:

(Start: 21 @16751 has 252 MA's), (Start: 25 @16775 has 1 MA's), (28, 16796), (48, 17024), (58, 17102), (59, 17111), (70, 17168), (80, 17255),

Gene: Trooper\_23 Start: 14931, Stop: 15512, Start Num: 21

Candidate Starts for Trooper\_23:

(Start: 21 @14931 has 252 MA's), (Start: 25 @14955 has 1 MA's), (28, 14976), (33, 15018), (48, 15204), (58, 15282), (59, 15291), (68, 15330), (70, 15348), (80, 15435), (93, 15495),

Gene: TroyPia\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for TroyPia\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Tubs\_24 Start: 15900, Stop: 16496, Start Num: 21

Candidate Starts for Tubs\_24:

(Start: 21 @15900 has 252 MA's), (Start: 25 @15924 has 1 MA's), (28, 15945), (59, 16263), (74, 16356), (93, 16470), (94, 16479),

Gene: Tucker\_26 Start: 15209, Stop: 15811, Start Num: 21

Candidate Starts for Tucker\_26:

(Start: 21 @15209 has 252 MA's), (Start: 25 @15233 has 1 MA's), (43, 15362), (44, 15386), (45, 15422), (59, 15572), (67, 15608), (69, 15617), (70, 15629), (76, 15686),

Gene: Turbido\_25 Start: 15594, Stop: 16184, Start Num: 21

Candidate Starts for Turbido\_25:

(5, 15381), (Start: 21 @15594 has 252 MA's), (Start: 25 @15618 has 1 MA's), (28, 15639), (45, 15807), (48, 15870), (51, 15879), (58, 15948), (59, 15957), (65, 15987), (70, 16014), (80, 16101),

Gene: Twigg\_19 Start: 13477, Stop: 14304, Start Num: 3

Candidate Starts for Twigg\_19:

(Start: 3 @13477 has 37 MA's), (7, 13606), (Start: 24 @13738 has 2 MA's), (26, 13744), (29, 13777), (32, 13810), (37, 13840), (44, 13900), (50, 14005), (58, 14077), (69, 14134), (84, 14254),

Gene: Twister\_22 Start: 14235, Stop: 14831, Start Num: 20

Candidate Starts for Twister\_22:

(13, 14196), (Start: 20 @14235 has 272 MA's), (Start: 24 @14256 has 2 MA's), (Start: 25 @14259 has 1 MA's), (30, 14295), (44, 14412), (67, 14637), (69, 14646), (74, 14691), (77, 14721),

Gene: TygerBlood\_22 Start: 14387, Stop: 14977, Start Num: 20

Candidate Starts for TygerBlood\_22:

(Start: 20 @14387 has 272 MA's), (Start: 24 @14408 has 2 MA's), (Start: 25 @14411 has 1 MA's), (44, 14558), (67, 14783), (74, 14837), (77, 14867),

Gene: Ugenie5\_21 Start: 15933, Stop: 16529, Start Num: 21

Candidate Starts for Ugenie5\_21:

(Start: 21 @15933 has 252 MA's), (Start: 25 @15957 has 1 MA's), (28, 15978), (33, 16020), (59, 16296), (68, 16338), (74, 16389), (93, 16503), (94, 16512),

Gene: UhSalsa\_18 Start: 10378, Stop: 11235, Start Num: 2

Candidate Starts for UhSalsa\_18:

(1, 10315), (Start: 2 @10378 has 36 MA's), (9, 10519), (Start: 21 @10630 has 252 MA's), (28, 10684), (48, 10930), (50, 10936), (57, 10999), (59, 11017), (67, 11059), (80, 11167), (92, 11227),

Gene: Ulysses\_21 Start: 14109, Stop: 14699, Start Num: 20

Candidate Starts for Ulysses\_21:

(Start: 20 @14109 has 272 MA's), (Start: 24 @14130 has 2 MA's), (Start: 25 @14133 has 1 MA's), (44, 14280), (67, 14505), (74, 14559), (77, 14589),

Gene: UnionJack\_19 Start: 13058, Stop: 13888, Start Num: 3

Candidate Starts for UnionJack\_19:

(Start: 3 @13058 has 37 MA's), (7, 13187), (12, 13241), (Start: 24 @13319 has 2 MA's), (26, 13325), (32, 13391), (43, 13460), (44, 13484), (50, 13589), (58, 13661), (59, 13670), (66, 13706), (67, 13709), (69, 13718), (83, 13832), (84, 13838),

Gene: Updawg\_25 Start: 15592, Stop: 16182, Start Num: 21

Candidate Starts for Updawg\_25:

(Start: 21 @15592 has 252 MA's), (Start: 25 @15616 has 1 MA's), (28, 15637), (48, 15868), (58, 15946), (59, 15955), (70, 16012), (80, 16099), (93, 16159),

Gene: VA6\_23 Start: 15104, Stop: 15694, Start Num: 21

Candidate Starts for VA6\_23:

(Start: 21 @15104 has 252 MA's), (Start: 25 @15128 has 1 MA's), (28, 15149), (41, 15245), (45, 15317), (51, 15389), (53, 15410), (59, 15467), (65, 15497), (68, 15506), (70, 15524), (74, 15557), (80, 15611), (93, 15671),

Gene: VC3\_26 Start: 15076, Stop: 15669, Start Num: 21

Candidate Starts for VC3\_26:

(Start: 21 @15076 has 252 MA's), (Start: 25 @15100 has 1 MA's), (28, 15121), (39, 15205), (49, 15349), (58, 15424), (59, 15433), (68, 15472), (70, 15490),

Gene: Vanisoa\_22 Start: 13983, Stop: 14579, Start Num: 21

Candidate Starts for Vanisoa\_22:

(Start: 21 @13983 has 252 MA's), (Start: 25 @14007 has 1 MA's), (28, 14028), (29, 14034), (65, 14379), (68, 14388), (69, 14394), (93, 14553), (94, 14562),

Gene: Vanseggelen\_19 Start: 9793, Stop: 10368, Start Num: 21

Candidate Starts for Vanseggelen\_19:

(Start: 21 @9793 has 252 MA's), (48, 10027), (69, 10165), (83, 10282),

Gene: Verabelle\_16 Start: 10140, Stop: 10703, Start Num: 21

Candidate Starts for Verabelle\_16:

(Start: 21 @10140 has 252 MA's), (48, 10374), (64, 10491), (69, 10512), (83, 10629),

Gene: Veracruz\_22 Start: 14531, Stop: 15130, Start Num: 20

Candidate Starts for Veracruz\_22:

(Start: 20 @14531 has 272 MA's), (Start: 24 @14552 has 2 MA's), (Start: 25 @14555 has 1 MA's), (28, 14576), (30, 14591), (41, 14672), (44, 14708), (46, 14780), (68, 14936), (77, 15017),

Gene: Vix\_24 Start: 14555, Stop: 15151, Start Num: 20

Candidate Starts for Vix\_24:

(Start: 20 @14555 has 272 MA's), (Start: 25 @14579 has 1 MA's), (28, 14600), (30, 14615), (44, 14726), (58, 14903), (69, 14963), (74, 15008),

Gene: VohminGhazi\_26 Start: 15209, Stop: 15811, Start Num: 21

Candidate Starts for VohminGhazi\_26:

(Start: 21 @15209 has 252 MA's), (Start: 25 @15233 has 1 MA's), (44, 15386), (59, 15572), (67, 15608), (69, 15617), (70, 15629), (76, 15686),

Gene: Waits\_25 Start: 14199, Stop: 14801, Start Num: 21

Candidate Starts for Waits\_25:

(Start: 21 @14199 has 252 MA's), (Start: 24 @14220 has 2 MA's), (27, 14235), (28, 14244), (44, 14373), (45, 14409),

Gene: WalterMcMickey\_22 Start: 14235, Stop: 14831, Start Num: 20

Candidate Starts for WalterMcMickey\_22:

(13, 14196), (Start: 20 @14235 has 272 MA's), (Start: 24 @14256 has 2 MA's), (Start: 25 @14259 has 1 MA's), (30, 14295), (44, 14412), (67, 14637), (69, 14646), (74, 14691), (77, 14721),

Gene: Wander\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Wander\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Warrior24\_26 Start: 14203, Stop: 14805, Start Num: 21

Candidate Starts for Warrior24\_26:

(Start: 21 @14203 has 252 MA's), (Start: 24 @14224 has 2 MA's), (27, 14239), (28, 14248), (44, 14377), (45, 14413),

Gene: Watson\_24 Start: 14465, Stop: 15061, Start Num: 20

Candidate Starts for Watson\_24:

(Start: 20 @14465 has 272 MA's), (Start: 25 @14489 has 1 MA's), (28, 14510), (30, 14525), (44, 14636), (58, 14813), (69, 14873), (74, 14918),

Gene: WeiHuaDA\_29 Start: 17358, Stop: 17948, Start Num: 21

Candidate Starts for WeiHuaDA\_29:

(Start: 21 @17358 has 252 MA's), (Start: 25 @17382 has 1 MA's), (28, 17403), (48, 17631), (59, 17718), (70, 17775), (80, 17862),

Gene: Whabigail7\_25 Start: 15582, Stop: 16172, Start Num: 21

Candidate Starts for Whabigail7\_25:

(5, 15369), (Start: 21 @15582 has 252 MA's), (Start: 25 @15606 has 1 MA's), (28, 15627), (45, 15795), (48, 15858), (51, 15867), (58, 15936), (59, 15945), (65, 15975), (70, 16002), (74, 16035), (80, 16089),

Gene: WideWale\_25 Start: 15592, Stop: 16182, Start Num: 21

Candidate Starts for WideWale\_25:

(Start: 21 @15592 has 252 MA's), (Start: 25 @15616 has 1 MA's), (28, 15637), (48, 15868), (58, 15946), (59, 15955), (70, 16012), (80, 16099), (93, 16159),

Gene: Wiks\_26 Start: 15191, Stop: 15793, Start Num: 21

Candidate Starts for Wiks\_26:

(Start: 21 @15191 has 252 MA's), (Start: 25 @15215 has 1 MA's), (43, 15344), (44, 15368), (45, 15404), (59, 15554), (67, 15590), (69, 15599), (70, 15611), (76, 15668),



Gene: Wilbur\_22 Start: 14388, Stop: 14978, Start Num: 20

Candidate Starts for Wilbur\_22:

(Start: 20 @14388 has 272 MA's), (Start: 24 @14409 has 2 MA's), (Start: 25 @14412 has 1 MA's), (44, 14559), (67, 14784), (74, 14838), (77, 14868),

Gene: Wile\_22 Start: 14403, Stop: 14990, Start Num: 20

Candidate Starts for Wile\_22:

(Start: 20 @14403 has 272 MA's), (Start: 24 @14424 has 2 MA's), (Start: 25 @14427 has 1 MA's), (30, 14463), (44, 14580), (57, 14748), (70, 14826), (74, 14859), (77, 14889),

Gene: Wizard007\_22 Start: 14390, Stop: 14980, Start Num: 20

Candidate Starts for Wizard007\_22:

(Start: 20 @14390 has 272 MA's), (Start: 24 @14411 has 2 MA's), (Start: 25 @14414 has 1 MA's), (44, 14561), (67, 14786), (74, 14840), (77, 14870),

Gene: Wooldri\_26 Start: 14384, Stop: 14980, Start Num: 20

Candidate Starts for Wooldri\_26:

(Start: 20 @14384 has 272 MA's), (Start: 25 @14408 has 1 MA's), (28, 14429), (30, 14444), (44, 14555), (58, 14732), (69, 14792), (74, 14837),

Gene: WunderPhul\_26 Start: 15191, Stop: 15793, Start Num: 21

Candidate Starts for WunderPhul\_26:

(Start: 21 @15191 has 252 MA's), (Start: 25 @15215 has 1 MA's), (43, 15344), (44, 15368), (45, 15404), (59, 15554), (67, 15590), (69, 15599), (70, 15611), (76, 15668),

Gene: Xena\_22 Start: 14390, Stop: 14977, Start Num: 20

Candidate Starts for Xena\_22:

(Start: 20 @14390 has 272 MA's), (Start: 24 @14411 has 2 MA's), (Start: 25 @14414 has 1 MA's), (30, 14450), (44, 14567), (57, 14735), (70, 14813), (74, 14846), (77, 14876),

Gene: XianYue\_23 Start: 15061, Stop: 15648, Start Num: 21

Candidate Starts for XianYue\_23:

(Start: 21 @15061 has 252 MA's), (Start: 25 @15085 has 1 MA's), (28, 15106), (45, 15271), (48, 15334), (58, 15412), (59, 15421), (65, 15451), (70, 15478), (74, 15511), (80, 15565), (94, 15634),

Gene: Yecey3\_23 Start: 14015, Stop: 14608, Start Num: 21

Candidate Starts for Yecey3\_23:

(Start: 21 @14015 has 252 MA's), (Start: 25 @14039 has 1 MA's), (28, 14060), (29, 14066), (58, 14366), (59, 14375), (93, 14582), (94, 14591),

Gene: YoSam321\_22 Start: 14385, Stop: 14975, Start Num: 20

Candidate Starts for YoSam321\_22:

(Start: 20 @14385 has 272 MA's), (Start: 24 @14406 has 2 MA's), (Start: 25 @14409 has 1 MA's), (44, 14556), (67, 14781), (74, 14835), (77, 14865),

Gene: Yogi\_18 Start: 10346, Stop: 11209, Start Num: 2

Candidate Starts for Yogi\_18:

(1, 10283), (Start: 2 @10346 has 36 MA's), (28, 10652), (48, 10904), (50, 10910), (57, 10973), (59, 10991), (67, 11033), (80, 11141),

Gene: Yokurt\_26 Start: 15191, Stop: 15793, Start Num: 21

Candidate Starts for Yokurt\_26:

(Start: 21 @15191 has 252 MA's), (Start: 25 @15215 has 1 MA's), (43, 15344), (44, 15368), (45, 15404), (59, 15554), (67, 15590), (69, 15599), (70, 15611), (76, 15668),

Gene: Yoncess\_18 Start: 10346, Stop: 11209, Start Num: 2

Candidate Starts for Yoncess\_18:

(1, 10283), (Start: 2 @10346 has 36 MA's), (28, 10652), (48, 10904), (50, 10910), (57, 10973), (59, 10991), (67, 11033), (80, 11141),

Gene: Yosif\_16 Start: 10520, Stop: 11083, Start Num: 21

Candidate Starts for Yosif\_16:

(Start: 21 @10520 has 252 MA's), (48, 10754), (69, 10892), (71, 10907), (90, 11042),

Gene: Zaka\_26 Start: 15191, Stop: 15793, Start Num: 21

Candidate Starts for Zaka\_26:

(Start: 21 @15191 has 252 MA's), (Start: 25 @15215 has 1 MA's), (43, 15344), (44, 15368), (45, 15404), (59, 15554), (67, 15590), (69, 15599), (70, 15611), (76, 15668),

Gene: Zetzy\_23 Start: 14008, Stop: 14601, Start Num: 20

Candidate Starts for Zetzy\_23:

(Start: 20 @14008 has 272 MA's), (Start: 25 @14032 has 1 MA's), (28, 14053), (30, 14068), (44, 14179), (45, 14215), (55, 14320), (58, 14356), (68, 14410), (69, 14416), (74, 14461), (93, 14575),

Gene: Zimmer\_25 Start: 16700, Stop: 17287, Start Num: 21

Candidate Starts for Zimmer\_25:

(Start: 21 @16700 has 252 MA's), (Start: 25 @16724 has 1 MA's), (29, 16751), (50, 16982), (58, 17054), (80, 17210),

Gene: Zolita\_18 Start: 13584, Stop: 14444, Start Num: 3

Candidate Starts for Zolita\_18:

(Start: 3 @13584 has 37 MA's), (7, 13713), (14, 13800), (Start: 24 @13854 has 2 MA's), (29, 13893), (32, 13932), (37, 13980), (43, 14016), (44, 14040), (50, 14145), (58, 14217), (76, 14343), (84, 14394),

Gene: Zulu\_26 Start: 15190, Stop: 15792, Start Num: 21

Candidate Starts for Zulu\_26:

(Start: 21 @15190 has 252 MA's), (Start: 25 @15214 has 1 MA's), (43, 15343), (44, 15367), (45, 15403), (59, 15553), (67, 15589), (69, 15598), (70, 15610), (76, 15667),