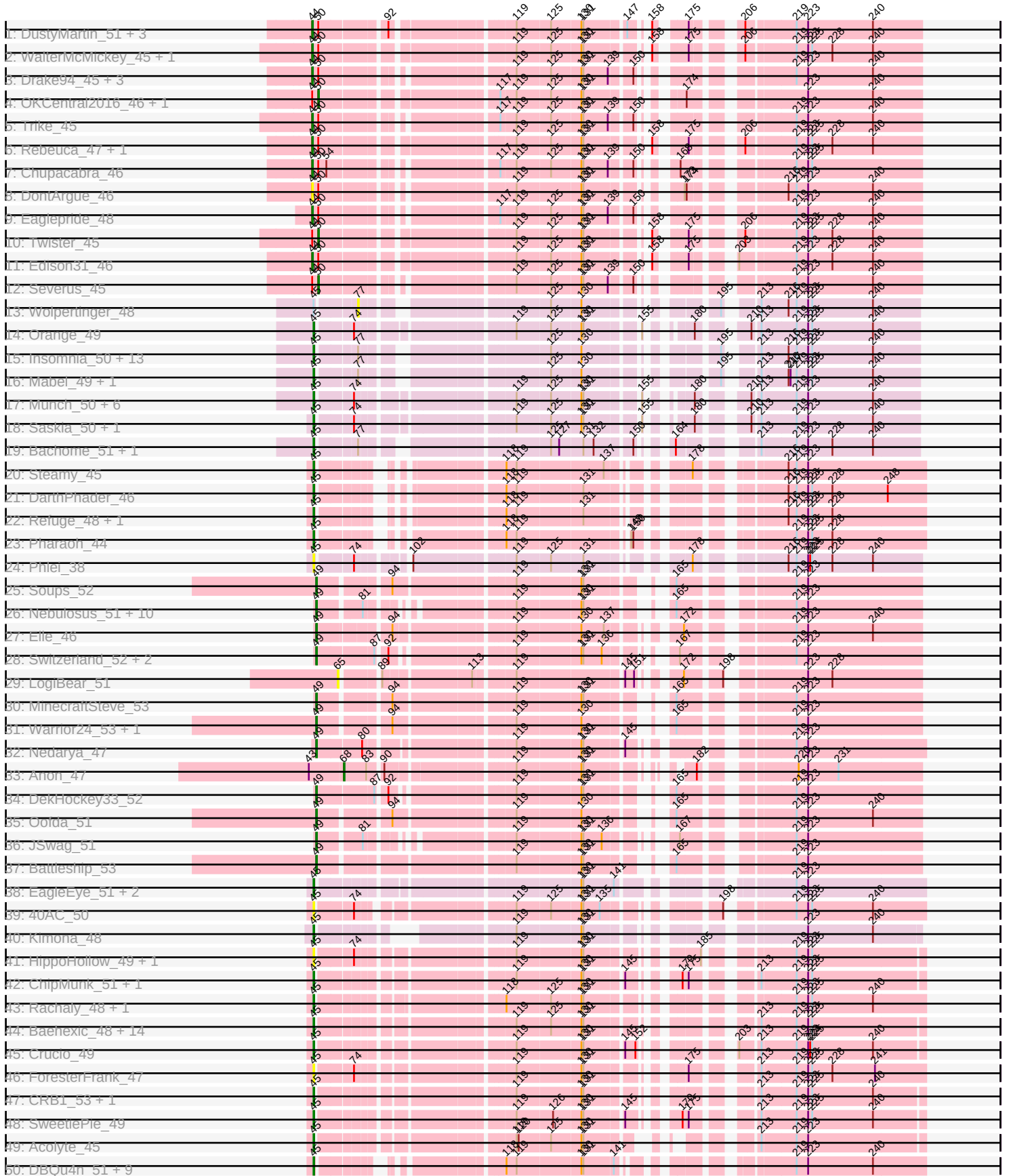
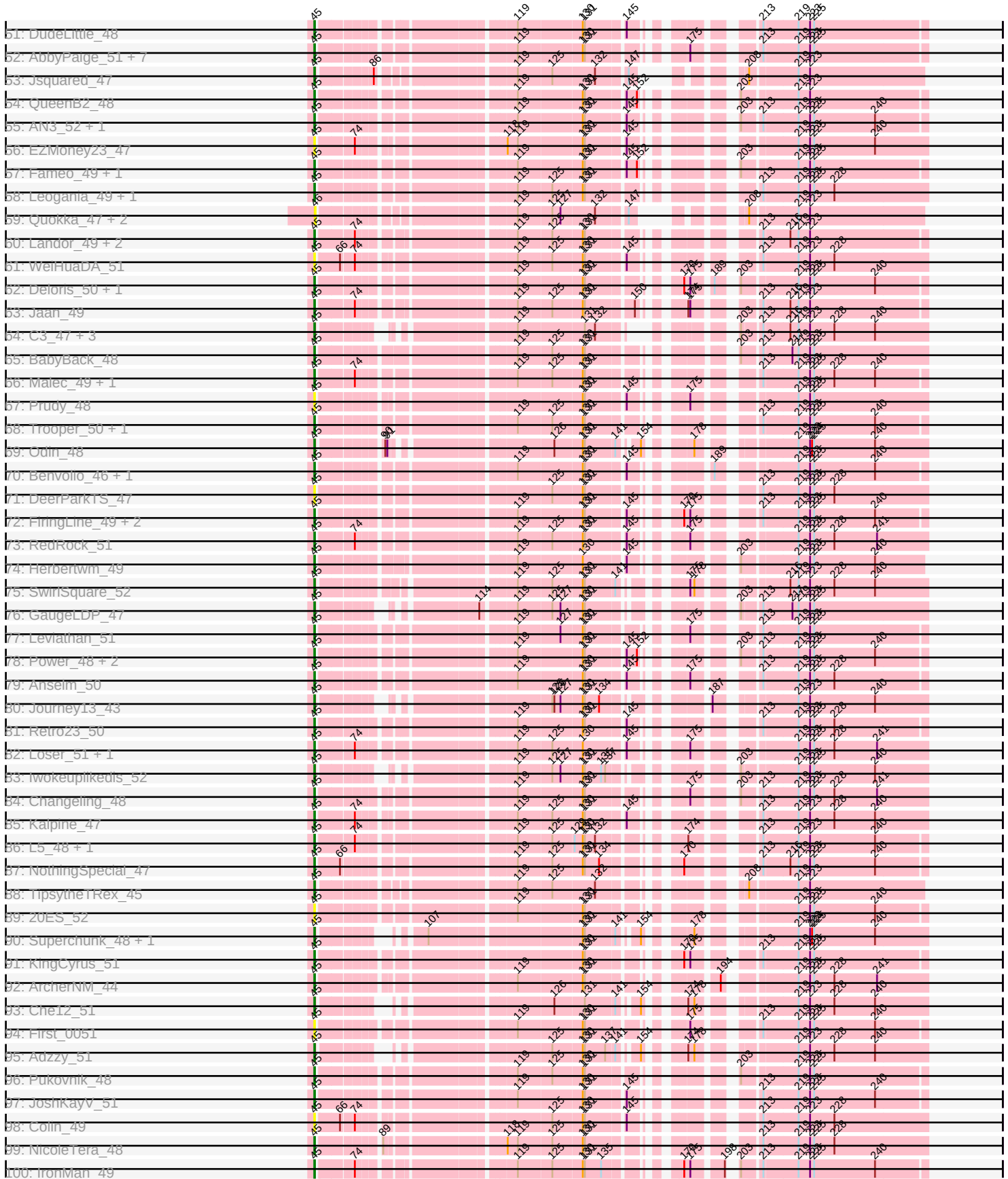
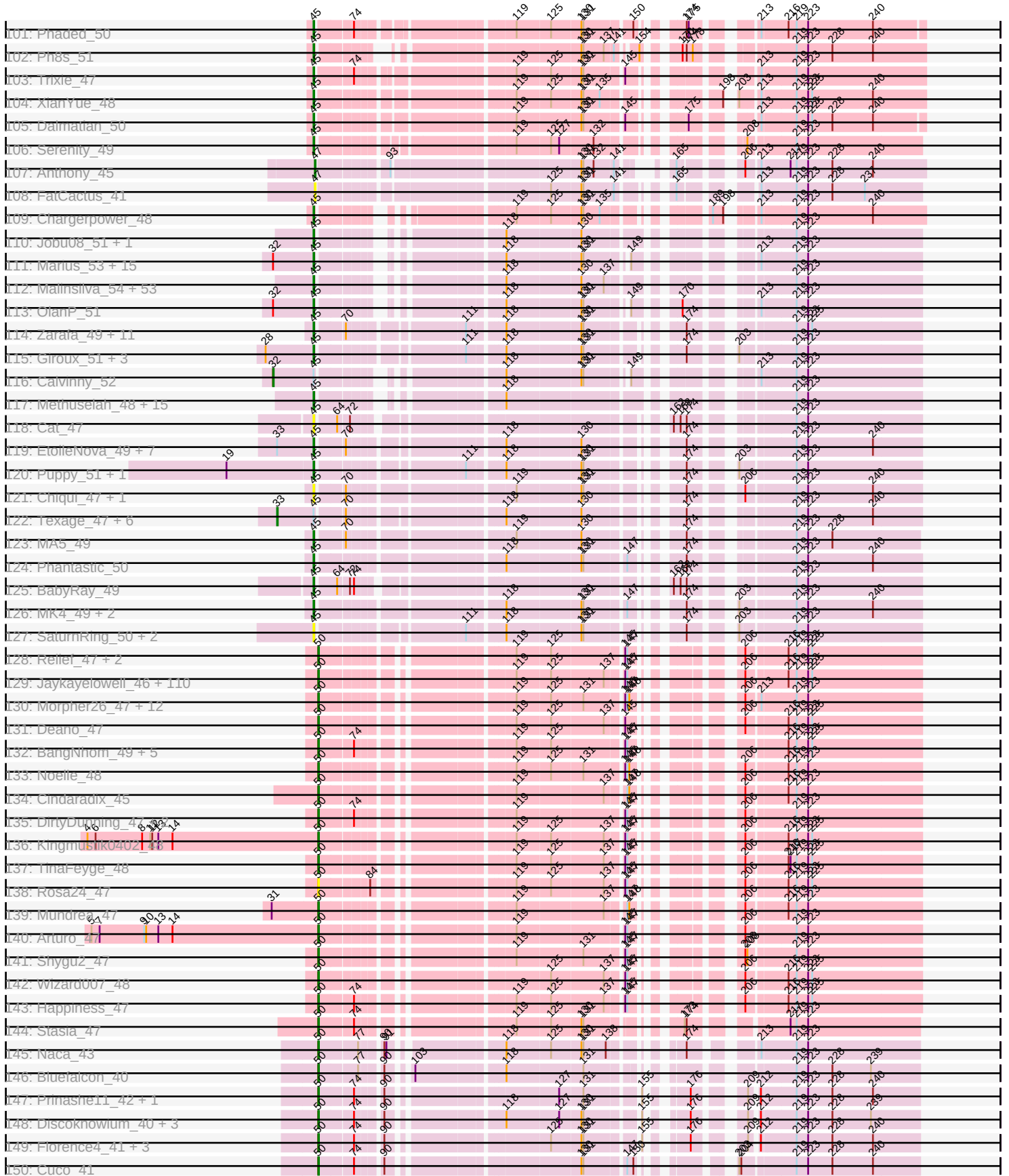


# Pham 326506

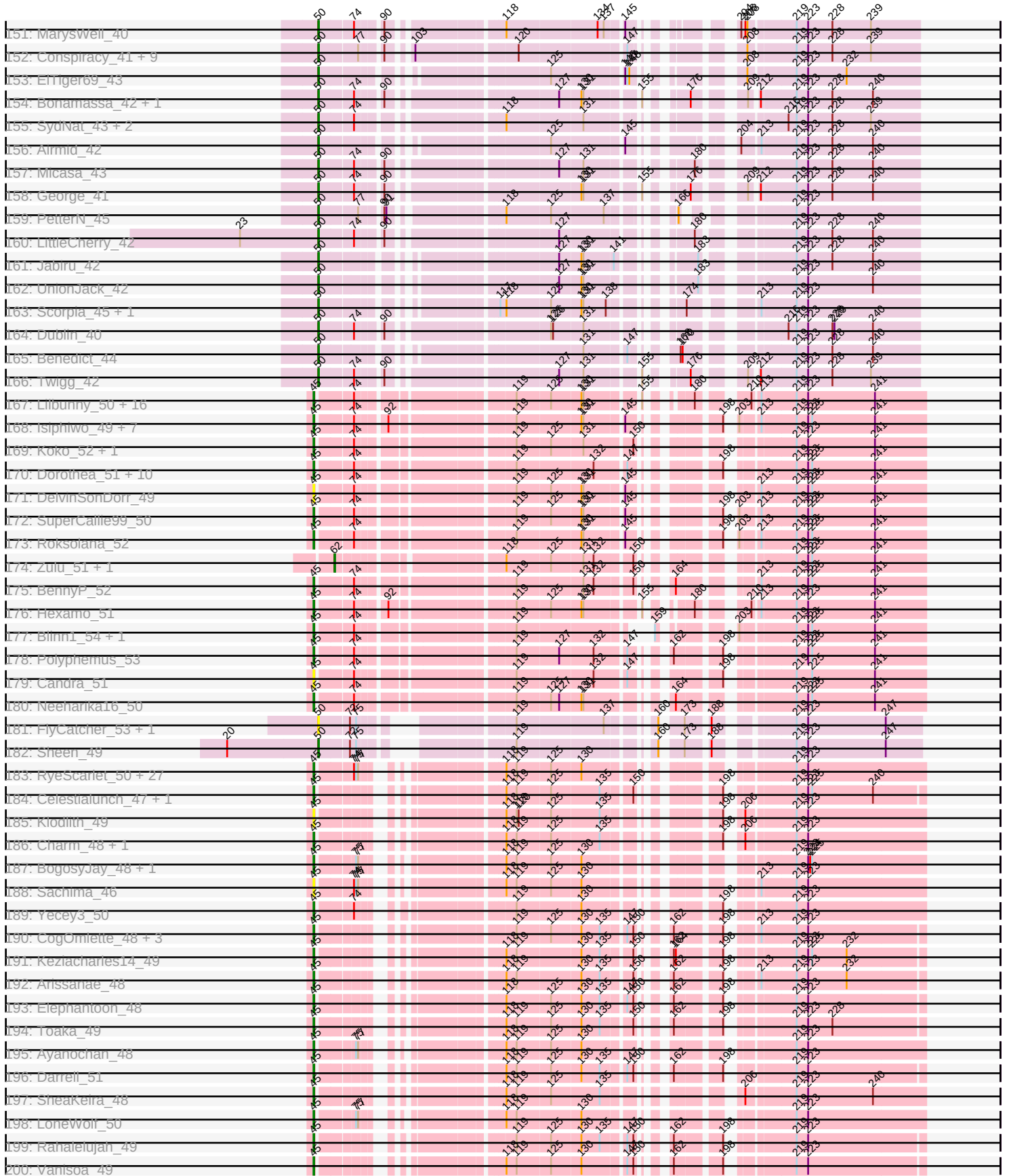




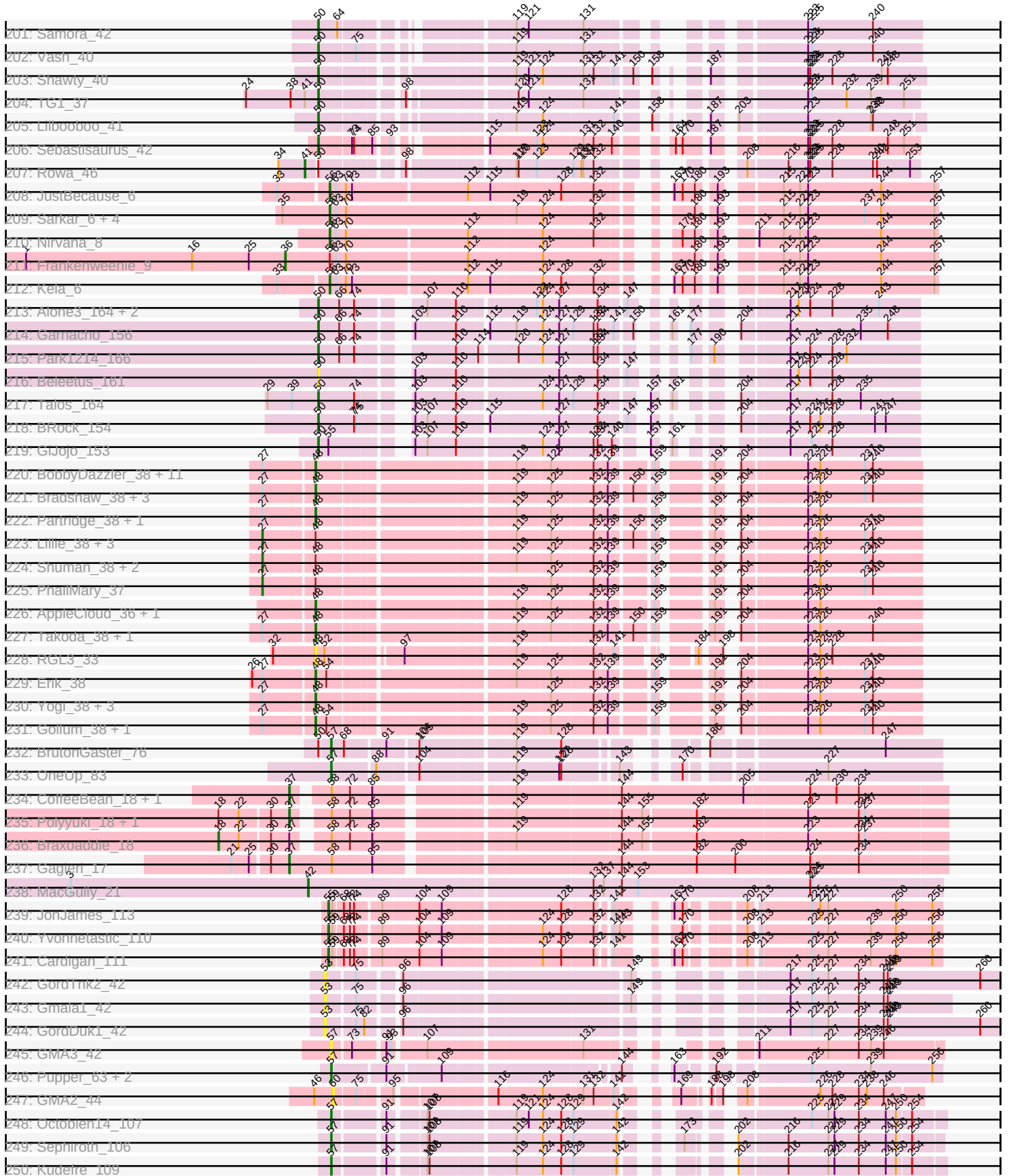
# Pham 326506



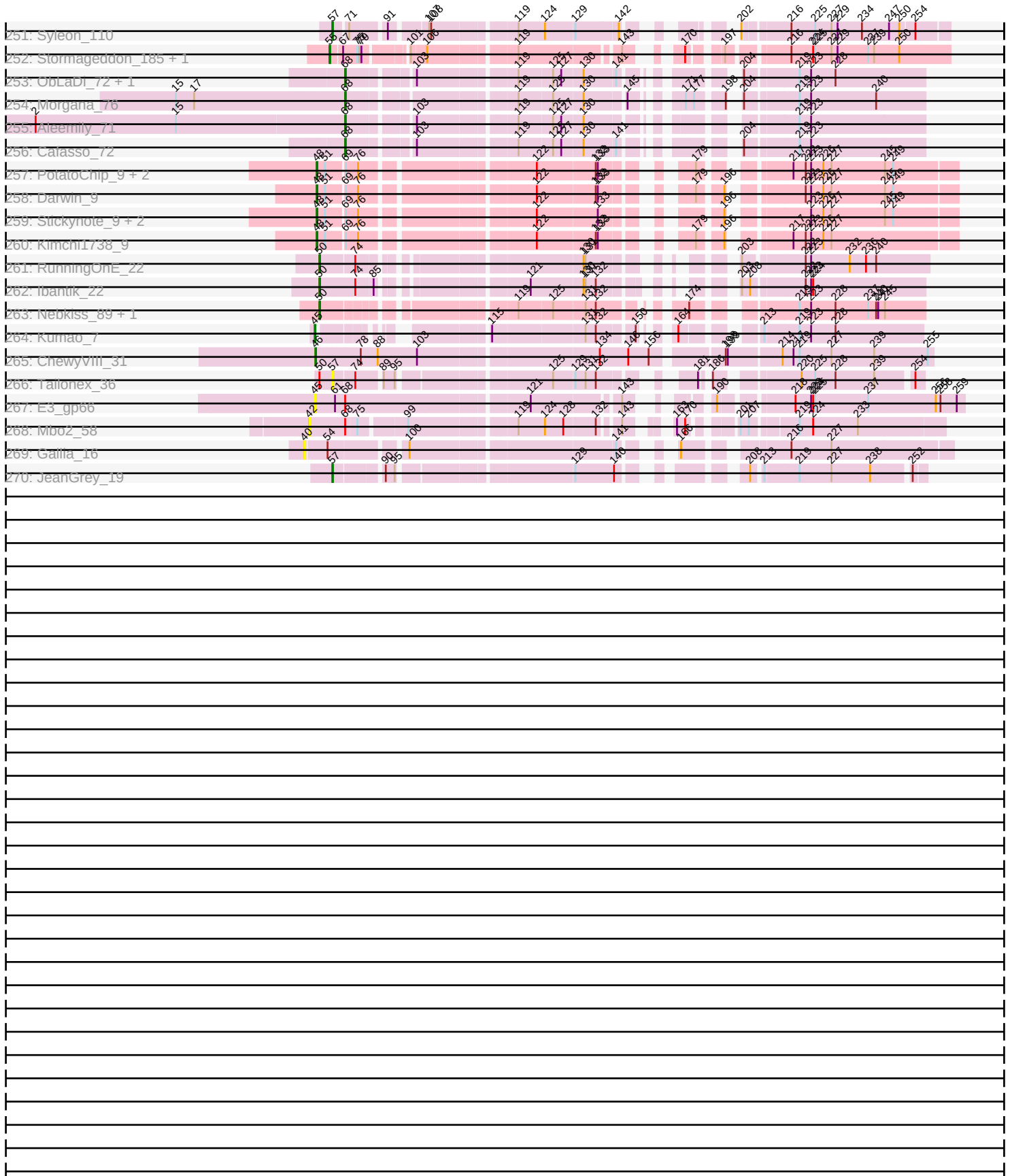
# Pham 326506



# Pham 326506



Pham 326506



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 326506 Report

This analysis was run 09/05/26 on database version 662.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 326506 has 753 members, 86 are drafts.

Phages represented in each track:

- Track 1 : DustyMartin\_51, Shapes\_51, Rowdy\_51, RhynO\_48
- Track 2 : WalterMcMickey\_45, Topanga\_45
- Track 3 : Drake94\_45, Poompha\_46, PeaceMeal1\_45, KittenMittens\_44
- Track 4 : OKCentral2016\_46, Goose\_47
- Track 5 : Trike\_45
- Track 6 : Rebeuca\_47, Kristoff\_47
- Track 7 : Chupacabra\_46
- Track 8 : DontArgue\_46
- Track 9 : Eaglepride\_48
- Track 10 : Twister\_45
- Track 11 : Edison31\_46
- Track 12 : Severus\_45
- Track 13 : Wolpertinger\_48
- Track 14 : Orange\_49
- Track 15 : Insomnia\_50, Snape\_49, Sham4\_49, TinyTimmy\_49, Et2Brutus\_48, Fibonacci\_49, Bud\_49, Mulciber\_49, Petersenfast\_49, Jabith\_50, Kimba\_49, Hutcz\_49, Ebony\_49, Salz\_48
- Track 16 : Mabel\_49, Timothy\_49
- Track 17 : Munch\_50, Lucivia\_50, Bowtie\_50, Gilberta\_50, Aneem\_50, Joselito\_50, Flaverint\_50
- Track 18 : Saskia\_50, MissWhite\_48
- Track 19 : Bachome\_51, MaCh\_50
- Track 20 : Steamy\_45
- Track 21 : DarthPhader\_46
- Track 22 : Refuge\_48, Zimmer\_46
- Track 23 : Pharaoh\_44
- Track 24 : Phlei\_38
- Track 25 : Soups\_52
- Track 26 : Nebulosus\_51, KatherineG\_53, Anaysia\_52, LastResort\_51, Epsocamisio\_50, Remus\_52, ReMo\_51, Looper\_52, Strosahl\_52, Boohoo\_52, ShayRa\_53
- Track 27 : Elle\_46
- Track 28 : Switzerland\_52, Rosalind\_51, Waits\_52

- Track 29 : LogiBear\_51
- Track 30 : MinecraftSteve\_53
- Track 31 : Warrior24\_53, Ravana\_53
- Track 32 : Nedarya\_47
- Track 33 : Anon\_47
- Track 34 : DekHockey33\_52
- Track 35 : Oofda\_51
- Track 36 : JSwag\_51
- Track 37 : Battleship\_53
- Track 38 : EagleEye\_51, PainterBoy\_50, Lucyedi\_50
- Track 39 : 40AC\_50
- Track 40 : Kimona\_48
- Track 41 : HippoHollow\_49, LionsBait\_51
- Track 42 : ChipMunk\_51, EvilGenius\_51
- Track 43 : Rachaly\_48, Miko\_46
- Track 44 : Baehexic\_48, Updawg\_50, WideWale\_50, Buggy\_51, Centaur\_50, Sknot\_49, NaSiaTalie\_49, Flare16\_49, Gratitude\_49, Terrific\_52, Drake55\_51, MiculUcigas\_49, Equemioh13\_50, Piro94\_49, HarryHoudini\_50
- Track 45 : Crucio\_49
- Track 46 : ForesterFrank\_47
- Track 47 : CRB1\_53, LadyBird\_54
- Track 48 : SweetiePie\_49
- Track 49 : Acolyte\_45
- Track 50 : DBQu4n\_51, D29\_48, Pomar16\_51, Travvers\_51, Naji\_51, Tomathan\_51, Kerberos\_51, D32\_50, Duplo\_51, StarStuff\_51
- Track 51 : DudeLittle\_48
- Track 52 : AbbyPaige\_51, Turbido\_50, Jerm\_51, Dignity\_51, Smeagan\_52, Whabigail7\_50, Agape74\_51, LilTurb\_50
- Track 53 : Jsquared\_47
- Track 54 : QueenB2\_48
- Track 55 : AN3\_52, VA6\_50
- Track 56 : EZMoney23\_47
- Track 57 : Fameo\_49, Heffalump\_48
- Track 58 : Leogania\_49, BiancaTri92\_49
- Track 59 : Quokka\_47, Bradman\_48, MajorMajor\_48
- Track 60 : Landor\_49, Bactobuster\_48, Tristan\_48
- Track 61 : WeiHuaDA\_51
- Track 62 : Deloris\_50, BengiVuitton\_51
- Track 63 : Jaan\_49
- Track 64 : C3\_47, VC3\_52, AN9\_52, ANI8\_52
- Track 65 : BabyBack\_48
- Track 66 : Malec\_49, Larenn\_48
- Track 67 : Prudy\_48
- Track 68 : Trooper\_50, TarsusIV\_48
- Track 69 : Odin\_48
- Track 70 : Benvolio\_46, Echid\_49
- Track 71 : DeerParkTS\_47
- Track 72 : FiringLine\_49, SemperFi\_50, QueenBeesly\_49
- Track 73 : RedRock\_51
- Track 74 : Herbertwm\_49
- Track 75 : SwirlSquare\_52
- Track 76 : GaugeLDP\_47
- Track 77 : Leviathan\_51

- Track 78 : Power\_48, Georgie2\_50, SnapTap\_49
- Track 79 : Anselm\_50
- Track 80 : Journey13\_43
- Track 81 : Retro23\_50
- Track 82 : Loser\_51, AnnaL29\_51
- Track 83 : Iwokeuplikedis\_52
- Track 84 : Changeling\_48
- Track 85 : Kalpine\_47
- Track 86 : L5\_48, Koduck\_50
- Track 87 : NothingSpecial\_47
- Track 88 : TipsytheTRex\_45
- Track 89 : 20ES\_52
- Track 90 : Superchunk\_48, Caraxes\_49
- Track 91 : KingCyrus\_51
- Track 92 : ArcherNM\_44
- Track 93 : Che12\_51
- Track 94 : First\_0051
- Track 95 : Adzzy\_51
- Track 96 : Pukovnik\_48
- Track 97 : JoshKayV\_51
- Track 98 : Colin\_49
- Track 99 : NicoleTera\_48
- Track 100 : IronMan\_49
- Track 101 : Phaded\_50
- Track 102 : Ph8s\_51
- Track 103 : Trixie\_47
- Track 104 : XianYue\_48
- Track 105 : Dalmatian\_50
- Track 106 : Serenity\_49
- Track 107 : Anthony\_45
- Track 108 : FatCactus\_41
- Track 109 : Chargerpower\_48
- Track 110 : Jobu08\_51, SoilDragon\_52
- Track 111 : Marius\_53, Phranny\_53, HaveUMetTed\_53, PurpleHaze\_52, ClownCar\_52, JeppNRM\_53, Pawn\_52, Heliosoles\_51, Manu\_52, PhishRPhriends\_50, Kalb97\_53, Kalnoky\_53, ACFishhook\_51, Groupthink\_53, Gemma\_51, Reba\_52
- Track 112 : Malinsilva\_54, Wooldri\_54, Pembroke\_52, MarQuardt\_52, Lilith\_53, MadMarie\_52, StepMih\_52, Marie\_52, GingkoMaracino\_52, Anubis\_55, LugYA\_55, Tiffany\_52, Montavir\_51, PGHhamlin\_54, PotatoSplit\_54, Lowa\_52, SoYo\_52, JHC117\_52, Bigflo\_52, Zetzy\_51, Hercules11\_52, Microwolf\_52, Fernando\_52, Gwennie\_52, MuchMore\_55, Colbster\_52, Grif\_52, DaHudson\_52, Sabinator\_51, Croquant\_53, BreSam8\_52, Grum1\_52, Ollie\_52, Phoebe\_53, Dieselweasel\_53, Taurus\_53, GtownJaz\_52, Aglet\_53, Vix\_52, Penny1\_53, Stagni\_52, MoneyMay\_52, EpicPhail\_53, Mainiac\_52, Cullens\_52, P28Green\_53, Sabia\_52, AugsMagnumOpus\_55, Snickers\_52, Watson\_52, Grub\_52, LBerry\_53, Beauxregard13\_52, JenCasNa\_53
- Track 113 : OlanP\_51
- Track 114 : Zarafa\_49, Heathen\_49, DropBear\_49, Goose1D\_43, Kachowdy\_49, Roimos\_49, Goose1X\_49, Fred313\_49, Marchesa\_49, Shep\_49, HelDan\_49, Scout\_49
- Track 115 : Giroux\_51, Pistachio\_51, BlueBird\_51, Idleandcovert\_50
- Track 116 : Calvinny\_52

- Track 117 : Methuselah\_48, BuzzBuzz\_50, Daishi\_51, Farber\_52, TinyPebbles\_51, HashRod\_53, Misomonster\_53, LarryKay\_52, Spike509\_52, AgronaGT15\_51, Rummer\_51, KADY\_52, Louie6\_51, Phoxy\_52, Soshari\_54, Bxz2\_48
- Track 118 : Cat\_47
- Track 119 : EtoileNova\_49, Pocahontas\_48, Popcicle\_48, Noella\_48, Hookmount\_48, Norbert\_47, Panamaxus\_46, ResDef\_48
- Track 120 : Puppy\_51, TNguyen7\_50
- Track 121 : Chiqui\_47, BabyJohn\_47
- Track 122 : Texage\_47, Caviar\_48, Margo\_48, QuinnKiro\_47, Veracruz\_47, Lambert1\_48, Todacoro\_48
- Track 123 : MA5\_49
- Track 124 : Phantastic\_50
- Track 125 : BabyRay\_49
- Track 126 : MK4\_49, Isca\_48, Rockstar\_49
- Track 127 : SaturnRing\_50, Bugatti\_50, Clammy\_50
- Track 128 : Relief\_47, Lemur\_48, Iceman\_48
- Track 129 : Jaykayelowell\_46, Sultana\_48, HamSlice\_47, RockieBear\_47, KekoraPapaka\_48, Nemo27\_48, Wander\_48, Blackmoor\_48, Phelipe\_49, Clarenza\_47, Shaka\_48, SteMason\_47, Ohfah\_49, Annyong\_48, Thanksgivukkah\_47, Baby16\_48, Huxley\_47, LappelDuVide\_48, Tinybot\_47, Broseidon\_48, Abdiel\_48, Cocoaberry\_48, Koreni\_47, Gadost\_48, Nebs\_49, Avle17\_48, NotAPhaseMom\_48, CentreCat\_48, Nyxis\_48, Funston\_47, Morrow\_49, Bruiser\_47, Iracema64\_49, Houdini22\_48, Connomayer\_48, Junimo\_47, Sparxx\_49, Pumbaa\_48, BubbleTrouble\_47, Skadoosh\_49, LochMonster\_49, Kremtemulon\_48, Florean\_48, LeoAvram\_48, Roosevelt\_47, PeterPeter\_48, MeeZee\_48, Spino\_47, Bombshell\_48, Pipcraft\_46, Dhanush\_48, NorthStar\_47, Ruin\_48, Flux\_48, Alberto7\_49, BellusTerra\_49, KFPoly\_47, Romney\_48, Camperdownii\_46, Scamp\_48, Druantia\_48, Eros\_48, LittleGuy\_48, Holli\_47, Eapen\_48, Citius\_48, Phontbonne\_48, Palestino\_47, Kamy\_48, Kyee\_48, OKaNui\_48, Buckaroo\_47, ICleared\_48, Melvin\_50, Wilbur\_48, Rocksand\_48, SenorClean\_48, Chaph\_48, JoongJeon\_47, Ulysses\_47, Mazhar510\_48, Mayonnaise\_47, TygerBlood\_48, Millski\_47, JetBlade\_48, LittleB\_48, Caelakin\_48, TroyPia\_49, Medusa\_48, Phacado\_48, Koan\_46, Peaches\_48, Sabertooth\_48, Lunsford\_49, Bartimeaus\_48, Skipitt\_47, Eurydice\_49, Burger\_46, Albee\_48, Cintron\_47, Maxo\_49, Eris\_47, Maverick\_48, Eagle\_48, Commander\_48, TiroTheta9\_48, Lorenzo\_48, Northrop\_48, Polymorphads\_49, Taquarus\_48, YoSam321\_48
- Track 130 : Morpher26\_47, Cici\_47, Xena\_46, Datway\_47, Perplexer\_47, Achebe\_46, Badger\_46, Bumblebee11\_46, AbbysRanger\_47, Backyardigan\_46, PetiteSangsue\_47, Wile\_47, Katalie136\_47
- Track 131 : Deano\_47
- Track 132 : BangNhom\_49, LHTSCC\_50, Obama12\_49, Cerulean\_49, ChampagnePapi\_50, SheldonCooper\_50
- Track 133 : Noelle\_48
- Track 134 : Cindaradix\_45
- Track 135 : DirtyDunning\_47, Phighter1804\_48, Kratark\_48
- Track 136 : Kingmustik0402\_48
- Track 137 : TinaFeyge\_48
- Track 138 : Rosa24\_47
- Track 139 : Mundrea\_47
- Track 140 : Arturo\_47
- Track 141 : Shygu2\_47
- Track 142 : Wizard007\_48
- Track 143 : Happiness\_47

- Track 144 : Stasia\_47
- Track 145 : Naca\_43
- Track 146 : Bluefalcon\_40
- Track 147 : Prinashel1\_42, Tarynearal\_40
- Track 148 : Discoknowium\_40, Aragog\_40, Phlorence\_40, Archetta\_41
- Track 149 : Florence4\_41, Florence1\_40, HuhtaEnerson15\_42, Milcery\_42
- Track 150 : Cuco\_41
- Track 151 : MarysWell\_40
- Track 152 : Conspiracy\_41, Coog\_41, ForGetIt\_41, Midas2\_41, AgentM\_40, Tiger\_40, Jovo\_41, PickleBack\_41, Lev2\_41, Theia\_39
- Track 153 : ElTiger69\_43
- Track 154 : Bonamassa\_42, Swirley\_44
- Track 155 : SydNat\_43, Ghoulboy\_43, Zolita\_42
- Track 156 : Airmid\_42
- Track 157 : Micasa\_43
- Track 158 : George\_41
- Track 159 : PetterN\_45
- Track 160 : LittleCherry\_42
- Track 161 : Jabiru\_42
- Track 162 : UnionJack\_42
- Track 163 : Scorpia\_45, Chadwick\_45
- Track 164 : Dublin\_40
- Track 165 : Benedict\_44
- Track 166 : Twigg\_42
- Track 167 : Lilbunny\_50, Wiks\_50, Indra\_54, Zaka\_51, BlessJoy\_52, Gruunaga\_51, Jeffabunny\_51, Artemis2UCLA\_51, WunderPhul\_51, ToneTone\_48, Temprado\_52, CloudWang3\_51, Rifler\_52, Helmet\_53, Garak\_53, Hammer\_52, Yokurt\_51
- Track 168 : Isiphiwo\_49, Gladiator\_49, Jordennis\_51, Newrala\_51, Cookiedough\_51, Imbriano\_50, SuperAwesome\_51, Pmask\_51
- Track 169 : Koko\_52, Blue7\_53
- Track 170 : Dorothea\_51, Chartreuse\_50, DaVinci\_50, SmellyB\_51, Kipper29\_51, GreedyLawyer\_51, McFly\_51, JewelBug\_52, VohminGhazi\_51, Kazan\_52, EricB\_51
- Track 171 : DelvinSonDorr\_49
- Track 172 : SuperCallie99\_50
- Track 173 : Roksolana\_52
- Track 174 : Zulu\_51, Tucker\_51
- Track 175 : BennyP\_52
- Track 176 : Hexamo\_51
- Track 177 : Blinn1\_54, Priamo\_53
- Track 178 : Polyphemus\_53
- Track 179 : Candra\_51
- Track 180 : Neeharika16\_50
- Track 181 : FlyCatcher\_53, Toro\_51
- Track 182 : Sheen\_49
- Track 183 : RyeScarlet\_50, EmyBug\_48, PackMan\_48, Jiawan\_47, Scherzo\_49, Fayely\_49, Hanray\_47, Eidsmoe\_49, Halex\_48, Ugenie5\_46, Conquerage\_49, Phonnegut\_49, Qobbit\_49, Pioneer\_49, Phaeder\_49, ExplosioNervosa\_49, HortumSL17\_49, Tubs\_49, Spouty\_49, Myxus\_49, Lilleskat\_47, Beemo\_49, Priya\_49, Onglai\_47, EdogawaKiddo\_47, Aliter\_49, Alma\_49, Catalina\_50
- Track 184 : Celestialunch\_47, MegTheThird\_48
- Track 185 : Klodlith\_49
- Track 186 : Charm\_48, DreamTeam1\_48
- Track 187 : BogosyJay\_48, Maminiaina\_48

- Track 188 : Sachima\_46
- Track 189 : Yecey3\_50
- Track 190 : CogOmlette\_48, Minispark\_48, WorldCup\_48, Bellris\_49
- Track 191 : Keziacharles14\_49
- Track 192 : Arissanae\_48
- Track 193 : Elephantoan\_48
- Track 194 : Toaka\_49
- Track 195 : Ayanochan\_48
- Track 196 : Darrell\_51
- Track 197 : SheaKeira\_48
- Track 198 : LoneWolf\_50
- Track 199 : Rahalelujah\_49
- Track 200 : Vanisoa\_49
- Track 201 : Samora\_42
- Track 202 : Vash\_40
- Track 203 : Shawty\_40
- Track 204 : TG1\_37
- Track 205 : Lilbooboo\_41
- Track 206 : Sebastisaurus\_42
- Track 207 : Rowa\_46
- Track 208 : JustBecause\_6
- Track 209 : Sarkar\_6, EhyElimayoE\_6, Quantum\_6, Satis\_6, Kradal\_6
- Track 210 : Nirvana\_8
- Track 211 : Frankenweenie\_9
- Track 212 : Kela\_6
- Track 213 : Alone3\_164, LuckySocke\_162, Fudan\_160
- Track 214 : Garnacho\_156
- Track 215 : Park1214\_166
- Track 216 : Beleetus\_161
- Track 217 : Talos\_164
- Track 218 : BRock\_154
- Track 219 : GiJojo\_153
- Track 220 : BobbyDazzler\_38, Bryce\_38, Natosaleda\_38, Nancinator\_38, Jester\_38, RexFury\_38, Rasputin\_38, Harlequin\_38, Swann\_38, Hiro\_38, UhSalsa\_38, Yoncess\_38
- Track 221 : Bradshaw\_38, Naiad\_38, StCroix\_38, Alatin\_38
- Track 222 : Partridge\_38, Dinger\_38
- Track 223 : Lillie\_38, Rhodalysa\_38, CosmicSans\_38, TWAMP\_38
- Track 224 : Shuman\_38, Espica\_38, Belenaria\_38
- Track 225 : PhailMary\_37
- Track 226 : AppleCloud\_36, Krishelle\_38
- Track 227 : Takoda\_38, AngryOrchard\_36
- Track 228 : RGL3\_33
- Track 229 : Erik\_38
- Track 230 : Yogi\_38, RER2\_31, Alpacados\_37, Bonanza\_38
- Track 231 : Gollum\_38, Phrankenstein\_38
- Track 232 : BrutonGaster\_76
- Track 233 : OneUp\_83
- Track 234 : CoffeeBean\_18, Maselop\_18
- Track 235 : Polyuyuki\_18, Apiary\_18
- Track 236 : Braxoaddie\_18
- Track 237 : Gagieri\_17
- Track 238 : MacGully\_21

- Track 239 : JonJames\_113
- Track 240 : Yvonnestic\_110
- Track 241 : Cardigan\_111
- Track 242 : GordTnk2\_42
- Track 243 : Gmala1\_42
- Track 244 : GordDuk1\_42
- Track 245 : GMA3\_42
- Track 246 : Pupper\_63, CherryTomatoes\_64, SCentae\_62
- Track 247 : GMA2\_44
- Track 248 : Octobien14\_107
- Track 249 : Sephiroth\_106
- Track 250 : Kudefre\_109
- Track 251 : Syleon\_110
- Track 252 : Stormageddon\_185, RedWattleHog\_184
- Track 253 : ObLaDi\_72, ModicumRichard\_72
- Track 254 : Morgana\_76
- Track 255 : Aleemily\_71
- Track 256 : Cafasso\_72
- Track 257 : PotatoChip\_9, Zion\_9, PeteyPab\_9
- Track 258 : Darwin\_9
- Track 259 : Stickynote\_9, C3PO\_9, Cruella\_9
- Track 260 : Kimchi1738\_9
- Track 261 : RunningOnE\_22
- Track 262 : Ibantik\_22
- Track 263 : Nebkiss\_89, Gaia\_90
- Track 264 : Kumao\_7
- Track 265 : ChewyVIII\_31
- Track 266 : Tailonex\_36
- Track 267 : E3\_gp66
- Track 268 : Mbo2\_58
- Track 269 : Gallia\_16
- Track 270 : JeanGrey\_19

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

The start number called the most often in the published annotations is 45, it was called in 334 of the 667 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_52, 40AC\_50, ACFishhook\_51, AN3\_52, AN9\_52, ANI8\_52, AbbyPaige\_51, Acolyte\_45, Adzzy\_51, Agape74\_51, Aglet\_53, AgronaGT15\_51, Aliter\_49, Alma\_49, Aneem\_50, AnnaL29\_51, Anselm\_50, Anubis\_55, ArcherNM\_44, Arissanae\_48, Artemis2UCLA\_51, AugsMagnumOpus\_55, Ayanochan\_48, BabyBack\_48, BabyJohn\_47, BabyRay\_49, Bachome\_51, Bactobuster\_48, Baehexic\_48, Beauxregard13\_52, Beemo\_49, Bellris\_49, BengiVuitton\_51, BennyP\_52, Benvolio\_46, BiancaTri92\_49, Bigflo\_52, BlessJoy\_52, Blinn1\_54, Blue7\_53, BlueBird\_51, BogosyJay\_48, Bowtie\_50, BreSam8\_52, Bud\_49, Bugatti\_50, Buggy\_51, BuzzBuzz\_50, Bxz2\_48, C3\_47, CRB1\_53, Candra\_51, Caraxes\_49, Cat\_47, Catalina\_50, Celestiallunch\_47, Centaur\_50, Changeling\_48, Chargerpower\_48, Charm\_48, Chartreuse\_50, Che12\_51, ChipMunk\_51, Chiqui\_47,

Clammy\_50, CloudWang3\_51, ClownCar\_52, CogOmlette\_48, Colbster\_52, Colin\_49, Conquerage\_49, Cookiedough\_51, Croquant\_53, Crucio\_49, Cullens\_52, D29\_48, D32\_50, DBQu4n\_51, DaHudson\_52, DaVinci\_50, Daishi\_51, Dalmatian\_50, Darrell\_51, DarthPhader\_46, DeerParkTS\_47, Deloris\_50, DelvinSonDorr\_49, Dieselweasel\_53, Dignity\_51, Dorothea\_51, Drake55\_51, DreamTeam1\_48, DropBear\_49, DudeLittle\_48, Duplo\_51, E3\_gp66, EZMoney23\_47, EagleEye\_51, Ebony\_49, Echild\_49, EdogawaKiddo\_47, Eidsmoe\_49, Elephantoon\_48, EmyBug\_48, EpicPhail\_53, Equemioh13\_50, EricB\_51, Et2Brutus\_48, EtoileNova\_49, EvilGenius\_51, ExplosioNervosa\_49, Fameo\_49, Farber\_52, Fayely\_49, Fernando\_52, Fibonacci\_49, FiringLine\_49, First\_0051, Flare16\_49, Flaverint\_50, ForesterFrank\_47, Fred313\_49, Garak\_53, GaugeLDP\_47, Gemma\_51, Georgie2\_50, Gilberta\_50, GingkoMaracino\_52, Giroux\_51, Gladiator\_49, Goose1D\_43, Goose1X\_49, Gratitude\_49, GreedyLawyer\_51, Grif\_52, Groupthink\_53, Grub\_52, Grum1\_52, Gruunaga\_51, GtownJaz\_52, Gwennie\_52, Hammer\_52, Hanray\_47, HarryHoudini\_50, HashRod\_53, HaveUMetTed\_53, Heathen\_49, Heffalump\_48, HelDan\_49, Heliosoles\_51, Helmet\_53, Herbertwm\_49, Hercules11\_52, Hexamo\_51, HippoHollow\_49, Horex\_48, Hookmount\_48, HortumSL17\_49, Hutc2\_49, Idleandcovert\_50, Imbriano\_50, Indra\_54, Insomnia\_50, IronMan\_49, Isca\_48, Isiphiwo\_49, Iwokeuplikedis\_52, JHC117\_52, Jaan\_49, Jabith\_50, Jeffabunny\_51, JenCasNa\_53, JeppNRM\_53, Jerm\_51, JewelBug\_52, Jiawan\_47, Jobu08\_51, Jordennis\_51, Joselito\_50, JoshKayV\_51, Journey13\_43, Jsquared\_47, KADY\_52, Kachowdy\_49, Kalb97\_53, Kalnoky\_53, Kalpine\_47, Kazan\_52, Kerberos\_51, Keziacharles14\_49, Kimba\_49, Kimona\_48, KingCyrus\_51, Kipper29\_51, Klodlith\_49, Koduck\_50, Koko\_52, Kumao\_7, L5\_48, LBerry\_53, LadyBird\_54, Landor\_49, Larenn\_48, LarryKay\_52, Leogania\_49, Leviathan\_51, LilTurb\_50, Lilbunny\_50, Lilith\_53, Lilleskat\_47, LionsBait\_51, LoneWolf\_50, Loser\_51, Louie6\_51, Iowa\_52, Lucivia\_50, Lucyedi\_50, LugYA\_55, MA5\_49, MK4\_49, MaCh\_50, Mabel\_49, MadMarie\_52, Mainiac\_52, Malec\_49, Malinsilva\_54, Maminiaina\_48, Manu\_52, MarQuardt\_52, Marchesa\_49, Marie\_52, Marius\_53, McFly\_51, MegTheThird\_48, Methuselah\_48, Microwolf\_52, MiculUcigas\_49, Miko\_46, Minispark\_48, Misomonster\_53, MissWhite\_48, MoneyMay\_52, Montavir\_51, MuchMore\_55, Mulciber\_49, Munch\_50, Myxus\_49, NaSiaTalie\_49, Naji\_51, Neeharika16\_50, Newrala\_51, NicoleTera\_48, Noella\_48, Norbert\_47, NothingSpecial\_47, Odin\_48, OlanP\_51, Ollie\_52, Onglai\_47, Orange\_49, P28Green\_53, PGHhamlin\_54, PackMan\_48, PainterBoy\_50, Panamaxus\_46, Pawn\_52, Pembroke\_52, Penny1\_53, Petersenfast\_49, Ph8s\_51, Phaded\_50, Phaeder\_49, Phantastic\_50, Pharaoh\_44, PhishRPhriends\_50, Phlei\_38, Phoebe\_53, Phonnegut\_49, Phoxy\_52, Phranny\_53, Pioneer\_49, Piro94\_49, Pistachio\_51, Pmask\_51, Pocahontas\_48, Polyphemus\_53, Pomar16\_51, Popcicle\_48, PotatoSplit\_54, Power\_48, Priamo\_53, Priya\_49, Prudy\_48, Pukovnik\_48, Puppy\_51, PurpleHaze\_52, Qobbit\_49, QueenB2\_48, QueenBeesly\_49, Rachaly\_48, Rahalelujah\_49, Reba\_52, RedRock\_51, Refuge\_48, ResDef\_48, Retro23\_50, Rifter\_52, Rockstar\_49, Roimos\_49, Roksolana\_52, Rummer\_51, RyeScarlet\_50, Sabia\_52, Sabinator\_51, Sachima\_46, Salz\_48, Saskia\_50, SaturnRing\_50, Scherzo\_49, Scout\_49, SemperFi\_50, Serenity\_49, Sham4\_49, SheaKeira\_48, Shep\_49, Sknot\_49, Smeagan\_52, SmellyB\_51, SnapTap\_49, Snape\_49, Snickers\_52, SoYo\_52, SoilDragon\_52, Soshari\_54, Spike509\_52, Spouty\_49, Stagni\_52, StarStuff\_51, Steamy\_45, StepMih\_52, SuperAwesome\_51, SuperCallie99\_50, Superchunk\_48, SweetiePie\_49, SwirlSquare\_52, TNguyen7\_50, TarsusIV\_48, Taurus\_53, Temprado\_52, Terrific\_52, Tiffany\_52, Timothy\_49, TinyPebbles\_51, TinyTimmy\_49, TipsytheTRex\_45, Toaka\_49, Tomathan\_51, ToneTone\_48, Travvers\_51, Tristan\_48, Trixie\_47, Trooper\_50, Tubs\_49, Turbido\_50, Ugenie5\_46, Updawg\_50, VA6\_50, VC3\_52,

Vanisoa\_49, Vix\_52, VohminGhazi\_51, Watson\_52, WeiHuaDA\_51, Whabigail7\_50, WideWale\_50, Wiks\_50, Wooldri\_54, WorldCup\_48, WunderPhul\_51, XianYue\_48, Yecey3\_50, Yokurt\_51, Zaka\_51, Zarafa\_49, Zetzy\_51, Zimmer\_46,

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

• Calvinny\_52, Caviar\_48, Lambert1\_48, Margo\_48, QuinnKiro\_47, Texage\_47, Todacoro\_48, Veracruz\_47, Wolpertinger\_48,

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

• AbbysRanger\_47, Abdiel\_48, Achebe\_46, AgentM\_40, Airmid\_42, Alatin\_38, Albee\_48, Alberto7\_49, Aleemily\_71, Alone3\_164, Alpacadros\_37, Anaysia\_52, AngryOrchard\_36, Annyong\_48, Anon\_47, Anthony\_45, Apiary\_18, AppleCloud\_36, Aragog\_40, Archetta\_41, Arturo\_47, Avle17\_48, BRock\_154, Baby16\_48, Backyardigan\_46, Badger\_46, BangNhom\_49, Bartimeaus\_48, Battleship\_53, Beleetus\_161, Belenaria\_38, BellusTerra\_49, Benedict\_44, Blackmoor\_48, Bluefalcon\_40, BobbyDazzler\_38, Bombshell\_48, Bonamassa\_42, Bonanza\_38, Boohoo\_52, Bradman\_48, Bradshaw\_38, Braxoaddie\_18, Broseidon\_48, Bruiser\_47, BrutonGaster\_76, Bryce\_38, BubbleTrouble\_47, Buckaroo\_47, Bumblebee11\_46, Burger\_46, C3PO\_9, Caelakin\_48, Cafasso\_72, Camperdownii\_46, Cardigan\_111, CentreCat\_48, Cerulean\_49, Chadwick\_45, ChampagnePapi\_50, Chaph\_48, CherryTomatoes\_64, ChewyVIII\_31, Chupacabra\_46, Cici\_47, Cindaradix\_45, Cintron\_47, Citius\_48, Clarenza\_47, Cocoaberry\_48, CoffeeBean\_18, Commander\_48, Connomayer\_48, Conspiracy\_41, Coog\_41, CosmicSans\_38, Cruella\_9, Cuco\_41, Darwin\_9, Datway\_47, Deano\_47, DekHockey33\_52, Dhanush\_48, Dinger\_38, DirtyDunning\_47, Discoknowium\_40, DontArgue\_46, Drake94\_45, Druantia\_48, Dublin\_40, DustyMartin\_51, Eagle\_48, Eaglepride\_48, Eapen\_48, Edison31\_46, EhyElimayoE\_6, ElTiger69\_43, Elle\_46, Epsocamisio\_50, Erik\_38, Eris\_47, Eros\_48, Espica\_38, Eurydice\_49, FatCactus\_41, Florean\_48, Florence1\_40, Florence4\_41, Flux\_48, FlyCatcher\_53, ForGetIt\_41, Frankenweenie\_9, Fudan\_160, Funston\_47, GMA2\_44, GMA3\_42, Gadost\_48, Gagieri\_17, Gaia\_90, Gallia\_16, Garnacho\_156, George\_41, Ghoulboy\_43, GiJojo\_153, Gmala1\_42, Gollum\_38, Goose\_47, GordDuk1\_42, GordTnk2\_42, HamSlice\_47, Happiness\_47, Harlequin\_38, Hiro\_38, Holli\_47, Houdini22\_48, HuhtaEnerson15\_42, Huxley\_47, ICleared\_48, Ibantik\_22, Iceman\_48, Iracema64\_49, JSwag\_51, Jabiru\_42, Jaykayelowell\_46, JeanGrey\_19, Jester\_38, JetBlade\_48, JonJames\_113, JoongJeon\_47, Jovo\_41, Junimo\_47, JustBecause\_6, KFPoly\_47, Kamy\_48, Katalie136\_47, KatherineG\_53, KekoraPapaka\_48, Kela\_6, Kimchi1738\_9, Kingmustik0402\_48, KittenMittens\_44, Koan\_46, Koreni\_47, Kradal\_6, Kratak\_48, Kremtemulon\_48, Krishelle\_38, Kristoff\_47, Kudfre\_109, Kyee\_48, LHTSCC\_50, LappelDuVide\_48, LastResort\_51, Lemur\_48, LeoAvram\_48, Lev2\_41, Lilbooboo\_41, Lillie\_38, LittleB\_48, LittleCherry\_42, LittleGuy\_48, LochMonster\_49, LogiBear\_51, Looper\_52, Lorenzo\_48, LuckySocks\_162, Lunsford\_49, MacGully\_21, MajorMajor\_48, MarysWell\_40, Maselop\_18, Maverick\_48, Maxo\_49, Mayonnaise\_47, Mazhar510\_48, Mbo2\_58, Medusa\_48, MeeZee\_48, Melvin\_50, Micasa\_43, Midas2\_41, Milcery\_42, Millski\_47, MinecraftSteve\_53, ModicumRichard\_72, Morgana\_76, Morpher26\_47, Morrow\_49, Mundrea\_47, Naca\_43, Naiad\_38, Nancinator\_38, Natosaleda\_38, Nebkiss\_89, Nebs\_49, Nebulosus\_51, Nedarya\_47, Nemo27\_48, Nirvana\_8, Noelle\_48, NorthStar\_47, Northrop\_48, NotAPhaseMom\_48, Nyxis\_48, OKCentral2016\_46, OKaNui\_48, ObLaDi\_72, Obama12\_49, Octobien14\_107, Ohfah\_49, OneUp\_83, Oofda\_51, Palestino\_47, Park1214\_166, Partridge\_38, PeaceMeal1\_45, Peaches\_48, Perplexer\_47, PeterPeter\_48, PeteyPab\_9, PetiteSangsue\_47, PetterN\_45, Phacado\_48, PhailMary\_37, Phelipe\_49, Phighter1804\_48,

Phlorence\_40, Phontbonne\_48, Phrankenstien\_38, PickleBack\_41, Pipcraft\_46, Polymorphads\_49, Polyyuki\_18, Poompha\_46, PotatoChip\_9, Prinasse11\_42, Pumbaa\_48, Pupper\_63, Quantum\_6, Quokka\_47, RER2\_31, RGL3\_33, Rasputin\_38, Ravana\_53, ReMo\_51, Rebeuca\_47, RedWattleHog\_184, Relief\_47, Remus\_52, RexFury\_38, Rhodalysa\_38, RhynO\_48, RockieBear\_47, Rocksand\_48, Romney\_48, Roosevelt\_47, Rosa24\_47, Rosalind\_51, Rowa\_46, Rowdy\_51, Ruin\_48, RunningOnE\_22, SCentae\_62, Sabertooth\_48, Samora\_42, Sarkar\_6, Satis\_6, Scamp\_48, Scorpia\_45, Sebastisaurus\_42, SenorClean\_48, Sephiroth\_106, Severus\_45, Shaka\_48, Shapes\_51, Shawty\_40, ShayRa\_53, Sheen\_49, SheldonCooper\_50, Shuman\_38, Shygu2\_47, Skadoosh\_49, Skipitt\_47, Soups\_52, Sparxx\_49, Spino\_47, StCroix\_38, Stasia\_47, SteMason\_47, Stickynote\_9, Stormageddon\_185, Strosahl\_52, Sultana\_48, Swann\_38, Swirley\_44, Switzerland\_52, SydNat\_43, Syleon\_110, TG1\_37, TWAMP\_38, Tilonex\_36, Takoda\_38, Talos\_164, Taquarus\_48, Tarynearal\_40, Thanksgivukkah\_47, Theia\_39, Tiger\_40, TinaFeyge\_48, Tinybot\_47, TiroTheta9\_48, Topanga\_45, Toro\_51, Trike\_45, TroyPia\_49, Tucker\_51, Twigg\_42, Twister\_45, TygerBlood\_48, UhSalsa\_38, Ulysses\_47, UnionJack\_42, Vash\_40, Waits\_52, WalterMcMickey\_45, Wander\_48, Warrior24\_53, Wilbur\_48, Wile\_47, Wizard007\_48, Xena\_46, YoSam321\_48, Yogi\_38, Yoncess\_38, Yvonnetastic\_110, Zion\_9, Zolita\_42, Zulu\_51,

### Summary by start number:

#### Start 18:

- Found in 3 of 753 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 667
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Braxoaddie\_18 (CR6),

#### Start 27:

- Found in 35 of 753 ( 4.6% ) of genes in pham
- Manual Annotations of this start: 8 of 667
- Called 22.9% of time when present
- Phage (with cluster) where this start called: Belenaria\_38 (CA), CosmicSans\_38 (CA), Espica\_38 (CA), Lillie\_38 (CA), PhailMary\_37 (CA), Rhodalysa\_38 (CA), Shuman\_38 (CA), TWAMP\_38 (CA),

#### Start 32:

- Found in 19 of 753 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 667
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Calvinny\_52 (A3),

#### Start 33:

- Found in 17 of 753 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 7 of 667
- Called 41.2% of time when present
- Phage (with cluster) where this start called: Caviar\_48 (A3), Lambert1\_48 (A3), Margo\_48 (A3), QuinnKiro\_47 (A3), Texage\_47 (A3), Todacoro\_48 (A3), Veracruz\_47 (A3),

#### Start 36:

- Found in 1 of 753 ( 0.1% ) of genes in pham

- Manual Annotations of this start: 1 of 667
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Frankenweenie\_9 (BM),

Start 37:

- Found in 6 of 753 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 5 of 667
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Apiary\_18 (CR6), CoffeeBean\_18 (CR6), Gagieri\_17 (CR6), Maselop\_18 (CR6), Polyuyuki\_18 (CR6),

Start 40:

- Found in 1 of 753 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gallia\_16 (singleton),

Start 41:

- Found in 2 of 753 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 667
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Rowa\_46 (BL),

Start 42:

- Found in 2 of 753 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 667
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MacGully\_21 (CR7), Mbo2\_58 (singleton),

Start 44:

- Found in 21 of 753 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 13 of 667
- Called 81.0% of time when present
- Phage (with cluster) where this start called: Chupacabra\_46 (A10), DontArgue\_46 (A10), Drake94\_45 (A10), DustyMartin\_51 (A10), Eaglepride\_48 (A10), Edison31\_46 (A10), KittenMittens\_44 (A10), Kristoff\_47 (A10), PeaceMeal1\_45 (A10), Poompha\_46 (A10), Rebeuca\_47 (A10), RhynO\_48 (A10), Rowdy\_51 (A10), Shapes\_51 (A10), Topanga\_45 (A10), Trike\_45 (A10), WalterMcMickey\_45 (A10),

Start 45:

- Found in 395 of 753 ( 52.5% ) of genes in pham
- Manual Annotations of this start: 334 of 667
- Called 97.7% of time when present
- Phage (with cluster) where this start called: 20ES\_52 (A2), 40AC\_50 (A17), ACFishhook\_51 (A3), AN3\_52 (A2), AN9\_52 (A2), ANI8\_52 (A2), AbbyPaige\_51 (A2), Acolyte\_45 (A2), Adzzy\_51 (A2), Agape74\_51 (A2), Aglet\_53 (A3), AgronaGT15\_51 (A3), Aliter\_49 (A9), Alma\_49 (A9), Aneem\_50 (A11), AnnaL29\_51 (A2), Anselm\_50 (A2), Anubis\_55 (A3), ArcherNM\_44 (A2), Arissanae\_48 (A9), Artemis2UCLA\_51 (A6), AugsMagnumOpus\_55 (A3), Ayanochan\_48 (A9), BabyBack\_48 (A2), BabyJohn\_47 (A3), BabyRay\_49 (A3), Bachome\_51 (A11), Bactobuster\_48 (A2), Baehexic\_48 (A2), Beauxregard13\_52 (A3), Beemo\_49 (A9), Bellris\_49 (A9), BengiVuitton\_51 (A2), BennyP\_52 (A6), Benvolio\_46 (A2), BiancaTri92\_49 (A2),

Bigflo\_52 (A3), BlessJoy\_52 (A6), Blinn1\_54 (A6), Blue7\_53 (A6), BlueBird\_51 (A3), BogosyJay\_48 (A9), Bowtie\_50 (A11), BreSam8\_52 (A3), Bud\_49 (A11), Bugatti\_50 (A3), Buggy\_51 (A2), BuzzBuzz\_50 (A3), Bxz2\_48 (A3), C3\_47 (A2), CRB1\_53 (A2), Candra\_51 (A6), Caraxes\_49 (A2), Cat\_47 (A3), Catalina\_50 (A9), Celestiallunch\_47 (A9), Centaur\_50 (A2), Changeling\_48 (A2), Chargerpower\_48 (A22), Charm\_48 (A9), Chartreuse\_50 (A6), Che12\_51 (A2), ChipMunk\_51 (A2), Chiqui\_47 (A3), Clammy\_50 (A3), CloudWang3\_51 (A6), ClownCar\_52 (A3), CogOmlette\_48 (A9), Colbster\_52 (A3), Colin\_49 (A2), Conquerage\_49 (A9), Cookiedough\_51 (A6), Croquant\_53 (A3), Crucio\_49 (A2), Cullens\_52 (A3), D29\_48 (A2), D32\_50 (A2), DBQu4n\_51 (A2), DaHudson\_52 (A3), DaVinci\_50 (A6), Daishi\_51 (A3), Dalmatian\_50 (A2), Darrell\_51 (A9), DarthPhader\_46 (A12), DeerParkTS\_47 (A2), Deloris\_50 (A2), DelvinSonDorr\_49 (A6), Dieselweasel\_53 (A3), Dignity\_51 (A2), Dorothea\_51 (A6), Drake55\_51 (A2), DreamTeam1\_48 (A9), DropBear\_49 (A3), DudeLittle\_48 (A2), Duplo\_51 (A2), E3\_gp66 (singleton), EZMoney23\_47 (A2), EagleEye\_51 (A16), Ebony\_49 (A11), Echild\_49 (A2), EdogawaKiddo\_47 (A9), Eidsmoe\_49 (A9), Elephantoon\_48 (A9), EmyBug\_48 (A9), EpicPhail\_53 (A3), Equemioh13\_50 (A2), EricB\_51 (A6), Et2Brutus\_48 (A11), EtoileNova\_49 (A3), EvilGenius\_51 (A2), ExplosioNervosa\_49 (A9), Fameo\_49 (A2), Farber\_52 (A3), Fayely\_49 (A9), Fernando\_52 (A3), Fibonacci\_49 (A11), FiringLine\_49 (A2), First\_0051 (A2), Flare16\_49 (A2), Flaverint\_50 (A11), ForesterFrank\_47 (A2), Fred313\_49 (A3), Garak\_53 (A6), GaugeLDP\_47 (A2), Gemma\_51 (A3), Georgie2\_50 (A2), Gilberta\_50 (A11), GingkoMaracino\_52 (A3), Giroux\_51 (A3), Gladiator\_49 (A6), Goose1D\_43 (A3), Goose1X\_49 (A3), Gratitude\_49 (A2), GreedyLawyer\_51 (A6), Grif\_52 (A3), Groupthink\_53 (A3), Grub\_52 (A3), Grum1\_52 (A3), Gruunaga\_51 (A6), GtownJaz\_52 (A3), Gwennie\_52 (A3), Hammer\_52 (A6), Hanray\_47 (A9), HarryHoudini\_50 (A2), HashRod\_53 (A3), HaveUMetTed\_53 (A3), Heathen\_49 (A3), Heffalump\_48 (A2), HelDan\_49 (A3), Heliosoles\_51 (A3), Helmet\_53 (A6), Herbertwm\_49 (A2), Hercules11\_52 (A3), Hexamo\_51 (A6), HippoHollow\_49 (A2), Horex\_48 (A9), Hookmount\_48 (A3), HortumSL17\_49 (A9), Hutc2\_49 (A11), Idleandcovert\_50 (A3), Imbriano\_50 (A6), Indra\_54 (A6), Insomnia\_50 (A11), IronMan\_49 (A2), Isca\_48 (A3), Isiphiwo\_49 (A6), Iwokeupliedis\_52 (A2), JHC117\_52 (A3), Jaan\_49 (A2), Jabith\_50 (A11), Jeffabunny\_51 (A6), JenCasNa\_53 (A3), JeppNRM\_53 (A3), Jerm\_51 (A2), JewelBug\_52 (A6), Jiawan\_47 (A9), Jobu08\_51 (A3), Jordennis\_51 (A6), Joselito\_50 (A11), JoshKayV\_51 (A2), Journey13\_43 (A2), Jsquared\_47 (A2), KADY\_52 (A3), Kachowdy\_49 (A3), Kalb97\_53 (A3), Kalnoky\_53 (A3), Kalpine\_47 (A2), Kazan\_52 (A6), Kerberos\_51 (A2), Keziacharles14\_49 (A9), Kimba\_49 (A11), Kimona\_48 (A19), KingCyrus\_51 (A2), Kipper29\_51 (A6), Klodlith\_49 (A9), Koduck\_50 (A2), Koko\_52 (A6), Kumao\_7 (singleton), L5\_48 (A2), LBerry\_53 (A3), LadyBird\_54 (A2), Landor\_49 (A2), Larenn\_48 (A2), LarryKay\_52 (A3), Leogania\_49 (A2), Leviathan\_51 (A2), LiITurb\_50 (A2), Liibunny\_50 (A6), Lilith\_53 (A3), Lilleskat\_47 (A9), LionsBait\_51 (A2), LoneWolf\_50 (A9), Loser\_51 (A2), Louie6\_51 (A3), Iowa\_52 (A3), Lucivia\_50 (A11), Lucyedi\_50 (A16), LugYA\_55 (A3), MA5\_49 (A3), MK4\_49 (A3), MaCh\_50 (A11), Mabel\_49 (A11), MadMarie\_52 (A3), Mainiac\_52 (A3), Malec\_49 (A2), Malinsilva\_54 (A3), Maminiaina\_48 (A9), Manu\_52 (A3), MarQuardt\_52 (A3), Marchesa\_49 (A3), Marie\_52 (A3), Marius\_53 (A3), McFly\_51 (A6), MegTheThird\_48 (A9), Methuselah\_48 (A3), Microwolf\_52 (A3), MiculUcigas\_49 (A2), Miko\_46 (A2), Minispark\_48 (A9), Misomonster\_53 (A3), MissWhite\_48 (A2), MoneyMay\_52 (A3), Montavir\_51 (A3), MuchMore\_55 (A3), Mulciber\_49 (A11), Munch\_50 (A11), Myxus\_49 (A9), NaSiaTalie\_49 (A2), Naji\_51 (A2), Neeharika16\_50 (A6), Newrala\_51 (A6), NicoleTera\_48 (A2), Noella\_48 (A3), Norbert\_47 (A3), NothingSpecial\_47 (A2), Odin\_48 (A2), OlanP\_51 (A3), Ollie\_52 (A3), Onglai\_47 (A9), Orange\_49 (A11), P28Green\_53 (A3), PGHhamlin\_54 (A3), PackMan\_48 (A9), PainterBoy\_50 (A16),

Panamaxus\_46 (A3), Pawn\_52 (A3), Pembroke\_52 (A3), Penny1\_53 (A3), Petersenfast\_49 (A11), Ph8s\_51 (A2), Phaded\_50 (A2), Phaeder\_49 (A9), Phantastic\_50 (A3), Pharaoh\_44 (A12), PhishRPhriends\_50 (A3), Phlei\_38 (A13), Phoebe\_53 (A3), Phonnegut\_49 (A9), Phoxy\_52 (A3), Phranny\_53 (A3), Pioneer\_49 (A9), Piro94\_49 (A2), Pistachio\_51 (A3), Pmask\_51 (A6), Pocahontas\_48 (A3), Polyphemus\_53 (A6), Pomar16\_51 (A2), Popcicle\_48 (A3), PotatoSplit\_54 (A3), Power\_48 (A2), Priamo\_53 (A6), Priya\_49 (A9), Prudy\_48 (A2), Pukovnik\_48 (A2), Puppy\_51 (A3), PurpleHaze\_52 (A3), Qobbit\_49 (A9), QueenB2\_48 (A2), QueenBeesly\_49 (A2), Rachaly\_48 (A2), Rahalelujah\_49 (A9), Reba\_52 (A3), RedRock\_51 (A2), Refuge\_48 (A12), ResDef\_48 (A3), Retro23\_50 (A2), Rifter\_52 (A6), Rockstar\_49 (A3), Roimos\_49 (A3), Roksolana\_52 (A6), Rummer\_51 (A3), RyeScarlet\_50 (A9), Sabia\_52 (A3), Sabinator\_51 (A3), Sachima\_46 (A9), Salz\_48 (A11), Saskia\_50 (A11), SaturnRing\_50 (A3), Scherzo\_49 (A9), Scout\_49 (A3), SemperFi\_50 (A2), Serenity\_49 (A2), Sham4\_49 (A11), SheaKeira\_48 (A9), Shep\_49 (A3), Sknot\_49 (A2), Smeagan\_52 (A2), SmellyB\_51 (A6), SnapTap\_49 (A2), Snape\_49 (A11), Snickers\_52 (A3), SoYo\_52 (A3), SoilDragon\_52 (A3), Soshari\_54 (A3), Spike509\_52 (A3), Spouty\_49 (A9), Stagni\_52 (A3), StarStuff\_51 (A2), Steamy\_45 (A12), StepMih\_52 (A3), SuperAwesome\_51 (A6), SuperCallie99\_50 (A6), Superchunk\_48 (A2), SweetiePie\_49 (A2), SwirlSquare\_52 (A2), TNguyen7\_50 (A3), TarsusIV\_48 (A2), Taurus\_53 (A3), Temprado\_52 (A6), Terrific\_52 (A2), Tiffany\_52 (A3), Timothy\_49 (A11), TinyPebbles\_51 (A3), TinyTimmy\_49 (A11), TipsytheTRex\_45 (A2), Toaka\_49 (A9), Tomathan\_51 (A2), ToneTone\_48 (A6), Travvers\_51 (A2), Tristan\_48 (A2), Trixie\_47 (A2), Trooper\_50 (A2), Tubs\_49 (A9), Turbido\_50 (A2), Ugenie5\_46 (A9), Updawg\_50 (A2), VA6\_50 (A2), VC3\_52 (A2), Vanisoa\_49 (A9), Vix\_52 (A3), VohminGhazi\_51 (A6), Watson\_52 (A3), WeiHuaDA\_51 (A2), Whabigail7\_50 (A2), WideWale\_50 (A2), Wiks\_50 (A6), Wooldri\_54 (A3), WorldCup\_48 (A9), WunderPhul\_51 (A6), XianYue\_48 (A2), Yecey3\_50 (A9), Yokurt\_51 (A6), Zaka\_51 (A6), Zarefa\_49 (A3), Zetzy\_51 (A3), Zimmer\_46 (A12),

#### Start 46:

- Found in 5 of 753 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 667
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Bradman\_48 (A2), ChewyVIII\_31 (singleton), MajorMajor\_48 (A2), Quokka\_47 (A2),

#### Start 47:

- Found in 2 of 753 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 667
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony\_45 (A20), FatCactus\_41 (A20),

#### Start 48:

- Found in 46 of 753 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 36 of 667
- Called 82.6% of time when present
- Phage (with cluster) where this start called: Alatin\_38 (CA), Alpacados\_37 (CA), AngryOrchard\_36 (CA), AppleCloud\_36 (CA), BobbyDazzler\_38 (CA), Bonanza\_38 (CA), Bradshaw\_38 (CA), Bryce\_38 (CA), C3PO\_9 (EN), Cruella\_9 (EN), Darwin\_9 (EN), Dinger\_38 (CA), Erik\_38 (CA), Gollum\_38 (CA), Harlequin\_38 (CA), Hiro\_38 (CA), Jester\_38 (CA), Kimchi1738\_9 (EN), Krishelle\_38 (CA), Naiad\_38 (CA), Nancinator\_38 (CA), Natosaleda\_38 (CA), Partridge\_38 (CA), PeteyPab\_9 (EN),

Phrankenstien\_38 (CA), PotatoChip\_9 (EN), RER2\_31 (CA), RGL3\_33 (CA), Rasputin\_38 (CA), RexFury\_38 (CA), StCroix\_38 (CA), Stickynote\_9 (EN), Swann\_38 (CA), Takoda\_38 (CA), UhSalsa\_38 (CA), Yogi\_38 (CA), Yoncess\_38 (CA), Zion\_9 (EN),

Start 49:

- Found in 24 of 753 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 24 of 667
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaysia\_52 (A15), Battleship\_53 (A15), Boohoo\_52 (A15), DekHockey33\_52 (A15), Elle\_46 (A15), Epsocamisio\_50 (A15), JSwag\_51 (A15), KatherineG\_53 (A15), LastResort\_51 (A15), Looper\_52 (A15), MinecraftSteve\_53 (A15), Nebulosus\_51 (A15), Nedarya\_47 (A15), Oofda\_51 (A15), Ravana\_53 (A15), ReMo\_51 (A15), Remus\_52 (A15), Rosalind\_51 (A15), ShayRa\_53 (A15), Soups\_52 (A15), Strosahl\_52 (A15), Switzerland\_52 (A15), Waits\_52 (A15), Warrior24\_53 (A15),

Start 50:

- Found in 236 of 753 ( 31.3% ) of genes in pham
- Manual Annotations of this start: 202 of 667
- Called 91.5% of time when present
- Phage (with cluster) where this start called: AbbysRanger\_47 (A4), Abdiel\_48 (A4), Achebe\_46 (A4), AgentM\_40 (A5), Airmid\_42 (A5), Albee\_48 (A4), Alberto7\_49 (A4), Alone3\_164 (BS), Annyong\_48 (A4), Aragog\_40 (A5), Archetta\_41 (A5), Arturo\_47 (A4), Avle17\_48 (A4), BRock\_154 (BS), Baby16\_48 (A4), Backyardigan\_46 (A4), Badger\_46 (A4), BangNhom\_49 (A4), Bartimeaus\_48 (A4), Beleetus\_161 (BS), BellusTerra\_49 (A4), Benedict\_44 (A5), Blackmoor\_48 (A4), Bluefalcon\_40 (A5), Bombshell\_48 (A4), Bonamassa\_42 (A5), Broseidon\_48 (A4), Bruiser\_47 (A4), BubbleTrouble\_47 (A4), Buckaroo\_47 (A4), Bumblebee11\_46 (A4), Burger\_46 (A4), Caelakin\_48 (A4), Camperdownii\_46 (A4), CentreCat\_48 (A4), Cerulean\_49 (A4), Chadwick\_45 (A5), ChampagnePapi\_50 (A4), Chaph\_48 (A4), Cici\_47 (A4), Cindaradix\_45 (A4), Cintron\_47 (A4), Citius\_48 (A4), Clarenza\_47 (A4), CocoaBerry\_48 (A4), Commander\_48 (A4), Connomayer\_48 (A4), Conspiracy\_41 (A5), Coog\_41 (A5), Cuco\_41 (A5), Datway\_47 (A4), Deano\_47 (A4), Dhanush\_48 (A4), DirtyDunning\_47 (A4), Discoknowium\_40 (A5), Druantia\_48 (A4), Dublin\_40 (A5), Eagle\_48 (A4), Eapen\_48 (A4), ElTiger69\_43 (A5), Eris\_47 (A4), Eros\_48 (A4), Eurydice\_49 (A4), Florean\_48 (A4), Florence1\_40 (A5), Florence4\_41 (A5), Flux\_48 (A4), FlyCatcher\_53 (A7), ForGetIt\_41 (A5), Fudan\_160 (BS), Funston\_47 (A4), Gadost\_48 (A4), Gaia\_90 (X), Garnacho\_156 (BS), George\_41 (A5), Ghoulboy\_43 (A5), GiJojo\_153 (BS), Goose\_47 (A10), HamSlice\_47 (A4), Happiness\_47 (A4), Holli\_47 (A4), Houdini22\_48 (A4), HuhtaEnerson15\_42 (A5), Huxley\_47 (A4), ICleared\_48 (A4), Ibantik\_22 (JN), Iceman\_48 (A4), Iracema64\_49 (A4), Jabiru\_42 (A5), Jaykayelowell\_46 (A4), JetBlade\_48 (A4), JoongJeon\_47 (A4), Jovo\_41 (A5), Junimo\_47 (A4), KFPoly\_47 (A4), Kampy\_48 (A4), Katalie136\_47 (A4), KekoraPapaka\_48 (A4), Kingmustik0402\_48 (A4), Koan\_46 (A4), Koreni\_47 (A4), Kratark\_48 (A4), Kremtemulon\_48 (A4), Kyee\_48 (A4), LHTSCC\_50 (A4), LappelDuVide\_48 (A4), Lemur\_48 (A4), LeoAvram\_48 (A4), Lev2\_41 (A5), Lilbooboo\_41 (BB1), LittleB\_48 (A4), LittleCherry\_42 (A5), LittleGuy\_48 (A4), LochMonster\_49 (A4), Lorenzo\_48 (A4), LuckySocke\_162 (BS), Lunsford\_49 (A4), MarysWell\_40 (A5), Maverick\_48 (A4), Maxo\_49 (A4), Mayonnaise\_47 (A4), Mazhar510\_48 (A4), Medusa\_48 (A4), MeeZee\_48 (A4), Melvin\_50 (A4), Micasa\_43 (A5), Midas2\_41 (A5), Milcery\_42 (A5), Millski\_47 (A4), Morpher26\_47 (A4), Morrow\_49 (A4), Mundrea\_47 (A4), Naca\_43 (A5), Nebkiss\_89 (X), Nebs\_49 (A4),

Nemo27\_48 (A4), Noelle\_48 (A4), NorthStar\_47 (A4), Northrop\_48 (A4), NotAPhaseMom\_48 (A4), Nyxis\_48 (A4), OKCentral2016\_46 (A10), OKaNui\_48 (A4), Obama12\_49 (A4), Ohfah\_49 (A4), Palestino\_47 (A4), Park1214\_166 (BS), Peaches\_48 (A4), Perplexer\_47 (A4), PeterPeter\_48 (A4), PetiteSangsue\_47 (A4), PetterN\_45 (A5), Phacado\_48 (A4), Phelipe\_49 (A4), Phighter1804\_48 (A4), Phlorence\_40 (A5), Phontbonne\_48 (A4), PickleBack\_41 (A5), Pipcraft\_46 (A4), Polymorphads\_49 (A4), Prinashel\_42 (A5), Pumbaa\_48 (A4), Relief\_47 (A4), RockieBear\_47 (A4), Rocksand\_48 (A4), Romney\_48 (A4), Roosevelt\_47 (A4), Rosa24\_47 (A4), Ruin\_48 (A4), RunningOnE\_22 (JN), Sabertooth\_48 (A4), Samora\_42 (BB1), Scamp\_48 (A4), Scorpio\_45 (A5), Sebastisaurus\_42 (BB2), SenorClean\_48 (A4), Severus\_45 (A10), Shaka\_48 (A4), Shawty\_40 (BB1), Sheen\_49 (A7), SheldonCooper\_50 (A4), Shygu2\_47 (A4), Skadoosh\_49 (A4), Skipitt\_47 (A4), Sparxx\_49 (A4), Spino\_47 (A4), Stasia\_47 (A4), SteMason\_47 (A4), Sultana\_48 (A4), Swirley\_44 (A5), SydNat\_43 (A5), TG1\_37 (BB1), Talos\_164 (BS), Taquarus\_48 (A4), Tarynearal\_40 (A5), Thanksgivukkah\_47 (A4), Theia\_39 (A5), Tiger\_40 (A5), TinaFeyge\_48 (A4), Tinybot\_47 (A4), TiroTheta9\_48 (A4), Toro\_51 (A7), TroyPia\_49 (A4), Twigg\_42 (A5), Twister\_45 (A10), TygerBlood\_48 (A4), Ulysses\_47 (A4), UnionJack\_42 (A5), Vash\_40 (BB1), Wander\_48 (A4), Wilbur\_48 (A4), Wile\_47 (A4), Wizard007\_48 (A4), Xena\_46 (A4), YoSam321\_48 (A4), Zolita\_42 (A5),

Start 53:

- Found in 3 of 753 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gmala1\_42 (DF1), GordDuk1\_42 (DF1), GordTnk2\_42 (DF1),

Start 55:

- Found in 6 of 753 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 5 of 667
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Cardigan\_111 (DD), JonJames\_113 (DD), RedWattleHog\_184 (DX), Stormageddon\_185 (DX), Yvonnestic\_110 (DD),

Start 56:

- Found in 9 of 753 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 8 of 667
- Called 88.9% of time when present
- Phage (with cluster) where this start called: EhyElimayoE\_6 (BM), JustBecause\_6 (BM), Kela\_6 (BM), Kradal\_6 (BM), Nirvana\_8 (BM), Quantum\_6 (BM), Sarkar\_6 (BM), Satis\_6 (BM),

Start 57:

- Found in 12 of 753 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 10 of 667
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster\_76 (CQ2), CherryTomatoes\_64 (DO), GMA3\_42 (DF2), JeanGrey\_19 (singleton), Kudrefre\_109 (DU1), Octobien14\_107 (DU1), OneUp\_83 (CQ2), Pupper\_63 (DO), SCentae\_62 (DO), Sephiroth\_106 (DU1), Syleon\_110 (DU1), Tailonex\_36 (singleton),

Start 60:

- Found in 1 of 753 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2\_44 (DS),

Start 62:

- Found in 2 of 753 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 2 of 667
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tucker\_51 (A6), Zulu\_51 (A6),

Start 65:

- Found in 1 of 753 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LogiBear\_51 (A15),

Start 68:

- Found in 12 of 753 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 6 of 667
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_71 (DZ), Anon\_47 (A15), Cafasso\_72 (DZ), ModicumRichard\_72 (DZ), Morgana\_76 (DZ), ObLaDi\_72 (DZ),

Start 77:

- Found in 67 of 753 ( 8.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Wolpertinger\_48 (A11),

### **Summary by clusters:**

There are 38 clusters represented in this pham: DO, singleton, BL, BM, DD, JN, DZ, DX, BS, DS, A15, A17, A16, A11, A10, A13, A12, DF1, DF2, A3, A2, A5, A4, A7, A6, A9, DU1, BB2, BB1, EN, CA, CQ2, X, A20, A22, CR6, CR7, A19,

Info for manual annotations of cluster A10:

- Start number 44 was manually annotated 13 times for cluster A10.
- Start number 50 was manually annotated 4 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 45 was manually annotated 27 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 45 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A15:

- Start number 49 was manually annotated 24 times for cluster A15.
- Start number 68 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster A16:

- Start number 45 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A19:

- Start number 45 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 45 was manually annotated 104 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 47 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A22:

- Start number 45 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:

- Start number 32 was manually annotated 1 time for cluster A3.
- Start number 33 was manually annotated 7 times for cluster A3.
- Start number 45 was manually annotated 110 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 50 was manually annotated 140 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 50 was manually annotated 39 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 45 was manually annotated 44 times for cluster A6.
- Start number 62 was manually annotated 2 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 50 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 45 was manually annotated 38 times for cluster A9.

Info for manual annotations of cluster BB1:

- Start number 50 was manually annotated 5 times for cluster BB1.

Info for manual annotations of cluster BB2:

- Start number 50 was manually annotated 1 time for cluster BB2.

Info for manual annotations of cluster BL:

- Start number 41 was manually annotated 1 time for cluster BL.

Info for manual annotations of cluster BM:

- Start number 36 was manually annotated 1 time for cluster BM.
- Start number 56 was manually annotated 8 times for cluster BM.

Info for manual annotations of cluster BS:

- Start number 50 was manually annotated 8 times for cluster BS.

Info for manual annotations of cluster CA:

- Start number 27 was manually annotated 8 times for cluster CA.

- Start number 48 was manually annotated 28 times for cluster CA.

Info for manual annotations of cluster CQ2:

- Start number 57 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CR6:

- Start number 18 was manually annotated 1 time for cluster CR6.
- Start number 37 was manually annotated 5 times for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 42 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster DD:

- Start number 55 was manually annotated 3 times for cluster DD.

Info for manual annotations of cluster DO:

- Start number 57 was manually annotated 3 times for cluster DO.

Info for manual annotations of cluster DU1:

- Start number 57 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DX:

- Start number 55 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster DZ:

- Start number 68 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster EN:

- Start number 48 was manually annotated 8 times for cluster EN.

Info for manual annotations of cluster JN:

- Start number 50 was manually annotated 2 times for cluster JN.

Info for manual annotations of cluster X:

- Start number 50 was manually annotated 2 times for cluster X.

### **Gene Information:**

Gene: 20ES\_52 Start: 33612, Stop: 32884, Start Num: 45

Candidate Starts for 20ES\_52:

(Start: 45 @33612 has 334 MA's), (119, 33375), (130, 33285), (131, 33282), (219, 33066), (223, 33051), (225, 33045), (240, 32955),

Gene: 40AC\_50 Start: 34380, Stop: 33652, Start Num: 45

Candidate Starts for 40AC\_50:

(Start: 45 @34380 has 334 MA's), (74, 34335), (119, 34149), (125, 34101), (130, 34059), (131, 34056), (135, 34032), (198, 33915), (219, 33840), (223, 33825), (225, 33819), (240, 33729),

Gene: ACFishhook\_51 Start: 33169, Stop: 32471, Start Num: 45

Candidate Starts for ACFishhook\_51:

(Start: 32 @33229 has 1 MA's), (Start: 45 @33169 has 334 MA's), (118, 32977), (130, 32872), (131, 32869), (149, 32818), (213, 32701), (219, 32653), (223, 32638),

Gene: AN3\_52 Start: 33983, Stop: 33255, Start Num: 45

Candidate Starts for AN3\_52:

(Start: 45 @33983 has 334 MA's), (119, 33746), (130, 33656), (131, 33653), (145, 33602), (203, 33509), (213, 33485), (219, 33437), (223, 33422), (225, 33416), (240, 33326),

Gene: AN9\_52 Start: 33241, Stop: 32555, Start Num: 45

Candidate Starts for AN9\_52:

(Start: 45 @33241 has 334 MA's), (119, 33031), (131, 32938), (132, 32923), (203, 32815), (213, 32791), (216, 32755), (219, 32743), (223, 32728), (228, 32692), (240, 32632),

Gene: ANI8\_52 Start: 33241, Stop: 32555, Start Num: 45

Candidate Starts for ANI8\_52:

(Start: 45 @33241 has 334 MA's), (119, 33031), (131, 32938), (132, 32923), (203, 32815), (213, 32791), (216, 32755), (219, 32743), (223, 32728), (228, 32692), (240, 32632),

Gene: AbbyPaige\_51 Start: 33549, Stop: 32824, Start Num: 45

Candidate Starts for AbbyPaige\_51:

(Start: 45 @33549 has 334 MA's), (119, 33315), (130, 33225), (131, 33222), (175, 33120), (213, 33054), (219, 33006), (223, 32991), (225, 32985),

Gene: AbbysRanger\_47 Start: 32771, Stop: 32052, Start Num: 50

Candidate Starts for AbbysRanger\_47:

(Start: 50 @32771 has 202 MA's), (119, 32543), (125, 32495), (131, 32450), (145, 32399), (147, 32396), (148, 32393), (206, 32300), (213, 32282), (219, 32234), (223, 32219),

Gene: Abdiel\_48 Start: 32782, Stop: 32063, Start Num: 50

Candidate Starts for Abdiel\_48:

(Start: 50 @32782 has 202 MA's), (119, 32554), (125, 32506), (137, 32431), (145, 32410), (147, 32407), (206, 32311), (216, 32257), (219, 32245), (223, 32230), (225, 32224),

Gene: Achebe\_46 Start: 32754, Stop: 32035, Start Num: 50

Candidate Starts for Achebe\_46:

(Start: 50 @32754 has 202 MA's), (119, 32526), (125, 32478), (131, 32433), (145, 32382), (147, 32379), (148, 32376), (206, 32283), (213, 32265), (219, 32217), (223, 32202),

Gene: Acolyte\_45 Start: 32492, Stop: 31791, Start Num: 45

Candidate Starts for Acolyte\_45:

(Start: 45 @32492 has 334 MA's), (119, 32255), (120, 32252), (125, 32207), (130, 32165), (131, 32162), (213, 32021), (219, 31973), (223, 31958),

Gene: Adzzy\_51 Start: 31979, Stop: 31275, Start Num: 45

Candidate Starts for Adzzy\_51:

(Start: 45 @31979 has 334 MA's), (125, 31724), (130, 31682), (131, 31679), (137, 31649), (141, 31637), (154, 31616), (174, 31580), (178, 31571), (219, 31463), (223, 31448), (228, 31412), (240, 31352),

Gene: Agape74\_51 Start: 33534, Stop: 32809, Start Num: 45

Candidate Starts for Agape74\_51:

(Start: 45 @33534 has 334 MA's), (119, 33300), (130, 33210), (131, 33207), (175, 33105), (213, 33039), (219, 32991), (223, 32976), (225, 32970),

Gene: AgentM\_40 Start: 31476, Stop: 30757, Start Num: 50

Candidate Starts for AgentM\_40:

(Start: 50 @31476 has 202 MA's), (77, 31422), (90, 31398), (103, 31374), (120, 31242), (147, 31098), (208, 30999), (219, 30936), (223, 30921), (228, 30885), (239, 30828),

Gene: Aglet\_53 Start: 33207, Stop: 32500, Start Num: 45

Candidate Starts for Aglet\_53:

(Start: 45 @33207 has 334 MA's), (118, 33015), (130, 32910), (137, 32877), (219, 32682), (223, 32667),

Gene: AgronaGT15\_51 Start: 33058, Stop: 32351, Start Num: 45

Candidate Starts for AgronaGT15\_51:

(Start: 45 @33058 has 334 MA's), (118, 32866), (219, 32533), (223, 32518),

Gene: Airmid\_42 Start: 31520, Stop: 30816, Start Num: 50

Candidate Starts for Airmid\_42:

(Start: 50 @31520 has 202 MA's), (125, 31256), (145, 31160), (204, 31067), (213, 31043), (219, 30995), (223, 30980), (228, 30944), (240, 30884),

Gene: Alatin\_38 Start: 29237, Stop: 28476, Start Num: 48

Candidate Starts for Alatin\_38:

(Start: 27 @29309 has 8 MA's), (Start: 48 @29237 has 36 MA's), (119, 28985), (125, 28937), (132, 28877), (139, 28856), (150, 28829), (159, 28805), (191, 28745), (204, 28730), (223, 28643), (226, 28625), (237, 28559), (240, 28547),

Gene: Albee\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Albee\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Alberto7\_49 Start: 33118, Stop: 32399, Start Num: 50

Candidate Starts for Alberto7\_49:

(Start: 50 @33118 has 202 MA's), (119, 32890), (125, 32842), (137, 32767), (145, 32746), (147, 32743), (206, 32647), (216, 32593), (219, 32581), (223, 32566), (225, 32560),

Gene: Aleemily\_71 Start: 46840, Stop: 47544, Start Num: 68

Candidate Starts for Aleemily\_71:

(2, 46390), (15, 46597), (Start: 68 @46840 has 6 MA's), (103, 46924), (119, 47053), (125, 47101), (127, 47113), (130, 47143), (219, 47362), (223, 47377),

Gene: Aliter\_49 Start: 32952, Stop: 32248, Start Num: 45

Candidate Starts for Aliter\_49:

(Start: 45 @32952 has 334 MA's), (74, 32907), (75, 32904), (77, 32901), (118, 32760), (119, 32745), (125, 32697), (130, 32655), (219, 32436), (223, 32421),

Gene: Alma\_49 Start: 33078, Stop: 32374, Start Num: 45

Candidate Starts for Alma\_49:

(Start: 45 @33078 has 334 MA's), (74, 33033), (75, 33030), (77, 33027), (118, 32886), (119, 32871), (125, 32823), (130, 32781), (219, 32562), (223, 32547),

Gene: Alone3\_164 Start: 87184, Stop: 87894, Start Num: 50

Candidate Starts for Alone3\_164:

(Start: 50 @87184 has 202 MA's), (66, 87214), (74, 87235), (107, 87304), (110, 87346), (123, 87445), (124, 87454), (127, 87478), (134, 87532), (147, 87565), (217, 87706), (220, 87718), (224, 87733), (228, 87766), (243, 87835),

Gene: Alpacados\_37 Start: 29142, Stop: 28381, Start Num: 48

Candidate Starts for Alpacados\_37:

(Start: 27 @29214 has 8 MA's), (Start: 48 @29142 has 36 MA's), (125, 28842), (132, 28782), (139, 28761), (159, 28710), (191, 28650), (204, 28635), (223, 28548), (226, 28530), (237, 28464), (240, 28452),

Gene: Anaysia\_52 Start: 31787, Stop: 31089, Start Num: 49

Candidate Starts for Anaysia\_52:

(Start: 49 @31787 has 24 MA's), (81, 31730), (119, 31571), (130, 31481), (131, 31478), (165, 31400), (219, 31271), (223, 31256),

Gene: Aneem\_50 Start: 32638, Stop: 31919, Start Num: 45

Candidate Starts for Aneem\_50:

(Start: 45 @32638 has 334 MA's), (74, 32593), (119, 32401), (125, 32353), (130, 32311), (131, 32308), (155, 32242), (180, 32206), (210, 32155), (213, 32146), (219, 32098), (223, 32083), (240, 31987),

Gene: AngryOrchard\_36 Start: 29101, Stop: 28340, Start Num: 48

Candidate Starts for AngryOrchard\_36:

(Start: 27 @29173 has 8 MA's), (Start: 48 @29101 has 36 MA's), (119, 28849), (125, 28801), (132, 28741), (139, 28720), (150, 28693), (159, 28669), (191, 28609), (204, 28594), (223, 28507), (226, 28489), (240, 28411),

Gene: AnnaL29\_51 Start: 34084, Stop: 33350, Start Num: 45

Candidate Starts for AnnaL29\_51:

(Start: 45 @34084 has 334 MA's), (74, 34039), (119, 33847), (125, 33799), (130, 33757), (145, 33703), (175, 33652), (219, 33538), (223, 33523), (225, 33517), (228, 33487), (241, 33424),

Gene: Annyong\_48 Start: 32826, Stop: 32107, Start Num: 50

Candidate Starts for Annyong\_48:

(Start: 50 @32826 has 202 MA's), (119, 32598), (125, 32550), (137, 32475), (145, 32454), (147, 32451), (206, 32355), (216, 32301), (219, 32289), (223, 32274), (225, 32268),

Gene: Anon\_47 Start: 30759, Stop: 30076, Start Num: 68

Candidate Starts for Anon\_47:

(43, 30804), (Start: 68 @30759 has 6 MA's), (83, 30726), (90, 30711), (119, 30549), (130, 30459), (131, 30456), (182, 30357), (220, 30255), (223, 30243), (231, 30198),

Gene: Anselm\_50 Start: 33465, Stop: 32740, Start Num: 45

Candidate Starts for Anselm\_50:

(Start: 45 @33465 has 334 MA's), (119, 33231), (130, 33141), (131, 33138), (145, 33087), (175, 33036), (213, 32970), (219, 32922), (223, 32907), (225, 32901), (228, 32871),

Gene: Anthony\_45 Start: 30926, Stop: 30207, Start Num: 47

Candidate Starts for Anthony\_45:

(Start: 47 @30926 has 1 MA's), (93, 30842), (130, 30596), (131, 30593), (132, 30578), (141, 30551), (165, 30518), (206, 30461), (213, 30443), (217, 30404), (219, 30395), (223, 30380), (228, 30344), (240, 30284),

Gene: Anubis\_55 Start: 33093, Stop: 32386, Start Num: 45

Candidate Starts for Anubis\_55:

(Start: 45 @33093 has 334 MA's), (118, 32901), (130, 32796), (137, 32763), (219, 32568), (223, 32553),

Gene: Apiary\_18 Start: 8904, Stop: 9791, Start Num: 37

Candidate Starts for Apiary\_18:

(Start: 18 @8808 has 1 MA's), (22, 8838), (30, 8877), (Start: 37 @8904 has 5 MA's), (58, 8943), (72, 8970), (85, 9000), (119, 9174), (144, 9324), (155, 9354), (182, 9429), (223, 9588), (234, 9663), (237, 9672),

Gene: AppleCloud\_36 Start: 29191, Stop: 28430, Start Num: 48

Candidate Starts for AppleCloud\_36:

(Start: 48 @29191 has 36 MA's), (119, 28939), (125, 28891), (132, 28831), (139, 28810), (159, 28759), (191, 28699), (204, 28684), (223, 28597), (226, 28579),

Gene: Aragog\_40 Start: 31500, Stop: 30787, Start Num: 50

Candidate Starts for Aragog\_40:

(Start: 50 @31500 has 202 MA's), (74, 31452), (90, 31422), (118, 31284), (127, 31209), (130, 31179), (131, 31176), (155, 31110), (176, 31074), (209, 31023), (212, 31014), (219, 30966), (223, 30951), (228, 30915), (239, 30858),

Gene: ArcherNM\_44 Start: 33078, Stop: 32347, Start Num: 45

Candidate Starts for ArcherNM\_44:

(Start: 45 @33078 has 334 MA's), (119, 32844), (130, 32754), (131, 32751), (194, 32616), (219, 32535), (223, 32520), (225, 32514), (228, 32484), (241, 32421),

Gene: Archetta\_41 Start: 32030, Stop: 31317, Start Num: 50

Candidate Starts for Archetta\_41:

(Start: 50 @32030 has 202 MA's), (74, 31982), (90, 31952), (118, 31814), (127, 31739), (130, 31709), (131, 31706), (155, 31640), (176, 31604), (209, 31553), (212, 31544), (219, 31496), (223, 31481), (228, 31445), (239, 31388),

Gene: Arissanae\_48 Start: 33608, Stop: 32907, Start Num: 45

Candidate Starts for Arissanae\_48:

(Start: 45 @33608 has 334 MA's), (118, 33413), (119, 33398), (130, 33308), (135, 33281), (150, 33242), (162, 33221), (198, 33164), (213, 33137), (219, 33089), (223, 33074), (232, 33017),

Gene: Artemis2UCLA\_51 Start: 31770, Stop: 31042, Start Num: 45

Candidate Starts for Artemis2UCLA\_51:

(Start: 45 @31770 has 334 MA's), (74, 31725), (119, 31533), (125, 31485), (130, 31443), (131, 31440), (155, 31374), (180, 31338), (210, 31287), (213, 31278), (219, 31230), (223, 31215), (241, 31116),

Gene: Arturo\_47 Start: 33061, Stop: 32342, Start Num: 50

Candidate Starts for Arturo\_47:

(5, 33391), (7, 33379), (9, 33313), (10, 33310), (13, 33292), (14, 33271), (Start: 50 @33061 has 202 MA's), (119, 32833), (145, 32689), (147, 32686), (206, 32590), (219, 32524), (223, 32509),

Gene: AugsMagnumOpus\_55 Start: 33198, Stop: 32491, Start Num: 45

Candidate Starts for AugsMagnumOpus\_55:

(Start: 45 @33198 has 334 MA's), (118, 33006), (130, 32901), (137, 32868), (219, 32673), (223, 32658),

Gene: Avle17\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Avle17\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Ayanochan\_48 Start: 33079, Stop: 32375, Start Num: 45

Candidate Starts for Ayanochan\_48:

(Start: 45 @33079 has 334 MA's), (75, 33031), (77, 33028), (118, 32887), (119, 32872), (125, 32824), (130, 32782), (219, 32563), (223, 32548),

Gene: BRock\_154 Start: 82002, Stop: 82691, Start Num: 50

Candidate Starts for BRock\_154:

(Start: 50 @82002 has 202 MA's), (74, 82053), (75, 82056), (103, 82104), (107, 82122), (110, 82164), (115, 82200), (127, 82296), (134, 82350), (147, 82383), (157, 82395), (204, 82440), (217, 82503), (224, 82530), (226, 82545), (228, 82563), (241, 82626), (247, 82641),

Gene: Baby16\_48 Start: 32792, Stop: 32073, Start Num: 50

Candidate Starts for Baby16\_48:

(Start: 50 @32792 has 202 MA's), (119, 32564), (125, 32516), (137, 32441), (145, 32420), (147, 32417), (206, 32321), (216, 32267), (219, 32255), (223, 32240), (225, 32234),

Gene: BabyBack\_48 Start: 33801, Stop: 33064, Start Num: 45

Candidate Starts for BabyBack\_48:

(Start: 45 @33801 has 334 MA's), (119, 33561), (125, 33513), (130, 33471), (131, 33468), (203, 33324), (213, 33300), (217, 33261), (219, 33252), (223, 33237), (225, 33231),

Gene: BabyJohn\_47 Start: 33055, Stop: 32321, Start Num: 45

Candidate Starts for BabyJohn\_47:

(Start: 45 @33055 has 334 MA's), (70, 33019), (119, 32812), (130, 32722), (131, 32719), (174, 32620), (206, 32569), (219, 32503), (223, 32488), (240, 32392),

Gene: BabyRay\_49 Start: 32984, Stop: 32262, Start Num: 45

Candidate Starts for BabyRay\_49:

(Start: 45 @32984 has 334 MA's), (64, 32957), (72, 32942), (74, 32939), (162, 32576), (168, 32567), (174, 32561), (219, 32444), (223, 32429),

Gene: Bachome\_51 Start: 32621, Stop: 31908, Start Num: 45

Candidate Starts for Bachome\_51:

(Start: 45 @32621 has 334 MA's), (77, 32570), (125, 32348), (127, 32336), (131, 32303), (132, 32288), (150, 32240), (164, 32216), (213, 32135), (219, 32087), (223, 32072), (228, 32036), (240, 31976),

Gene: Backyardigan\_46 Start: 32787, Stop: 32068, Start Num: 50

Candidate Starts for Backyardigan\_46:

(Start: 50 @32787 has 202 MA's), (119, 32559), (125, 32511), (131, 32466), (145, 32415), (147, 32412), (148, 32409), (206, 32316), (213, 32298), (219, 32250), (223, 32235),

Gene: Bactobuster\_48 Start: 34023, Stop: 33298, Start Num: 45

Candidate Starts for Bactobuster\_48:

(Start: 45 @34023 has 334 MA's), (74, 33978), (119, 33789), (125, 33741), (130, 33699), (131, 33696), (213, 33528), (216, 33492), (219, 33480), (223, 33465),

Gene: Badger\_46 Start: 32755, Stop: 32036, Start Num: 50

Candidate Starts for Badger\_46:

(Start: 50 @32755 has 202 MA's), (119, 32527), (125, 32479), (131, 32434), (145, 32383), (147, 32380), (148, 32377), (206, 32284), (213, 32266), (219, 32218), (223, 32203),

Gene: Baehexic\_48 Start: 33242, Stop: 32514, Start Num: 45

Candidate Starts for Baehexic\_48:

(Start: 45 @33242 has 334 MA's), (119, 33005), (125, 32957), (130, 32915), (131, 32912), (213, 32744), (219, 32696), (223, 32681), (225, 32675),

Gene: BangNhom\_49 Start: 33203, Stop: 32484, Start Num: 50

Candidate Starts for BangNhom\_49:

(Start: 50 @33203 has 202 MA's), (74, 33158), (119, 32975), (125, 32927), (145, 32831), (147, 32828), (216, 32678), (219, 32666), (223, 32651), (225, 32645),

Gene: Bartimeaus\_48 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Bartimeaus\_48:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Battleship\_53 Start: 31798, Stop: 31070, Start Num: 49

Candidate Starts for Battleship\_53:

(Start: 49 @31798 has 24 MA's), (119, 31552), (130, 31462), (131, 31459), (165, 31381), (219, 31252), (223, 31237),

Gene: Beauxregard13\_52 Start: 33210, Stop: 32503, Start Num: 45

Candidate Starts for Beauxregard13\_52:

(Start: 45 @33210 has 334 MA's), (118, 33018), (130, 32913), (137, 32880), (219, 32685), (223, 32670),

Gene: Beemo\_49 Start: 33074, Stop: 32370, Start Num: 45

Candidate Starts for Beemo\_49:

(Start: 45 @33074 has 334 MA's), (74, 33029), (75, 33026), (77, 33023), (118, 32882), (119, 32867), (125, 32819), (130, 32777), (219, 32558), (223, 32543),

Gene: Beleetus\_161 Start: 85630, Stop: 86340, Start Num: 50

Candidate Starts for Beleetus\_161:

(Start: 50 @85630 has 202 MA's), (103, 85732), (110, 85792), (127, 85924), (134, 85978), (147, 86011), (217, 86152), (220, 86164), (224, 86179), (228, 86212),

Gene: Belenaria\_38 Start: 29243, Stop: 28410, Start Num: 27

Candidate Starts for Belenaria\_38:

(Start: 27 @29243 has 8 MA's), (Start: 48 @29171 has 36 MA's), (119, 28919), (125, 28871), (132, 28811), (139, 28790), (159, 28739), (191, 28679), (204, 28664), (223, 28577), (226, 28559), (237, 28493), (240, 28481),

Gene: Bellris\_49 Start: 32548, Stop: 31847, Start Num: 45

Candidate Starts for Bellris\_49:

(Start: 45 @32548 has 334 MA's), (119, 32338), (125, 32290), (130, 32248), (135, 32221), (147, 32191), (150, 32182), (162, 32161), (198, 32104), (213, 32077), (219, 32029), (223, 32014),

Gene: BellusTerra\_49 Start: 32782, Stop: 32063, Start Num: 50

Candidate Starts for BellusTerra\_49:

(Start: 50 @32782 has 202 MA's), (119, 32554), (125, 32506), (137, 32431), (145, 32410), (147, 32407), (206, 32311), (216, 32257), (219, 32245), (223, 32230), (225, 32224),

Gene: Benedict\_44 Start: 31695, Stop: 30988, Start Num: 50

Candidate Starts for Benedict\_44:

(Start: 50 @31695 has 202 MA's), (131, 31386), (147, 31332), (168, 31296), (170, 31293), (219, 31167), (223, 31152), (228, 31116), (240, 31056),

Gene: BengiVuitton\_51 Start: 33565, Stop: 32837, Start Num: 45

Candidate Starts for BengiVuitton\_51:

(Start: 45 @33565 has 334 MA's), (119, 33328), (130, 33238), (131, 33235), (170, 33139), (175, 33133), (189, 33109), (203, 33091), (219, 33019), (223, 33004), (225, 32998), (240, 32908),

Gene: BennyP\_52 Start: 32227, Stop: 31493, Start Num: 45

Candidate Starts for BennyP\_52:

(Start: 45 @32227 has 334 MA's), (74, 32182), (119, 31990), (131, 31897), (132, 31882), (150, 31834), (164, 31810), (213, 31729), (219, 31681), (223, 31666), (225, 31660), (241, 31567),

Gene: Benvolio\_46 Start: 32496, Stop: 31771, Start Num: 45

Candidate Starts for Benvolio\_46:

(Start: 45 @32496 has 334 MA's), (119, 32262), (130, 32172), (131, 32169), (145, 32118), (189, 32043), (219, 31953), (223, 31938), (225, 31932), (240, 31842),

Gene: BiancaTri92\_49 Start: 33867, Stop: 33133, Start Num: 45

Candidate Starts for BiancaTri92\_49:

(Start: 45 @33867 has 334 MA's), (119, 33630), (125, 33582), (130, 33540), (131, 33537), (213, 33369), (219, 33321), (223, 33306), (225, 33300), (228, 33270),

Gene: Bigflo\_52 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for Bigflo\_52:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: Blackmoor\_48 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Blackmoor\_48:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: BlessJoy\_52 Start: 32231, Stop: 31503, Start Num: 45

Candidate Starts for BlessJoy\_52:

(Start: 45 @32231 has 334 MA's), (74, 32186), (119, 31994), (125, 31946), (130, 31904), (131, 31901), (155, 31835), (180, 31799), (210, 31748), (213, 31739), (219, 31691), (223, 31676), (241, 31577),

Gene: Blinn1\_54 Start: 32178, Stop: 31468, Start Num: 45

Candidate Starts for Blinn1\_54:

(Start: 45 @32178 has 334 MA's), (74, 32133), (119, 31941), (159, 31794), (203, 31728), (219, 31656), (223, 31641), (225, 31635), (241, 31542),

Gene: Blue7\_53 Start: 31875, Stop: 31138, Start Num: 45

Candidate Starts for Blue7\_53:

(Start: 45 @31875 has 334 MA's), (74, 31830), (119, 31638), (125, 31590), (131, 31545), (150, 31479), (219, 31326), (223, 31311), (241, 31212),

Gene: BlueBird\_51 Start: 33076, Stop: 32348, Start Num: 45

Candidate Starts for BlueBird\_51:

(28, 33145), (Start: 45 @33076 has 334 MA's), (111, 32896), (118, 32854), (130, 32749), (131, 32746), (174, 32647), (203, 32602), (219, 32530), (223, 32515),

Gene: Bluefalcon\_40 Start: 31994, Stop: 31275, Start Num: 50

Candidate Starts for Bluefalcon\_40:

(Start: 50 @31994 has 202 MA's), (77, 31940), (90, 31916), (103, 31892), (118, 31778), (131, 31670), (219, 31454), (223, 31439), (228, 31403), (239, 31346),

Gene: BobbyDazzler\_38 Start: 29216, Stop: 28455, Start Num: 48

Candidate Starts for BobbyDazzler\_38:

(Start: 27 @29288 has 8 MA's), (Start: 48 @29216 has 36 MA's), (119, 28964), (125, 28916), (132, 28856), (139, 28835), (159, 28784), (191, 28724), (204, 28709), (223, 28622), (226, 28604), (237, 28538), (240, 28526),

Gene: BogosyJay\_48 Start: 32795, Stop: 32091, Start Num: 45

Candidate Starts for BogosyJay\_48:

(Start: 45 @32795 has 334 MA's), (75, 32747), (77, 32744), (118, 32603), (119, 32588), (125, 32540), (130, 32498), (219, 32279), (223, 32264), (224, 32261), (225, 32258),

Gene: Bombshell\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Bombshell\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Bonamassa\_42 Start: 32019, Stop: 31306, Start Num: 50

Candidate Starts for Bonamassa\_42:

(Start: 50 @32019 has 202 MA's), (74, 31971), (90, 31941), (127, 31728), (130, 31698), (131, 31695), (155, 31629), (176, 31593), (209, 31542), (212, 31533), (219, 31485), (223, 31470), (228, 31434), (240, 31374),

Gene: Bonanza\_38 Start: 29144, Stop: 28383, Start Num: 48

Candidate Starts for Bonanza\_38:

(Start: 27 @29216 has 8 MA's), (Start: 48 @29144 has 36 MA's), (125, 28844), (132, 28784), (139, 28763), (159, 28712), (191, 28652), (204, 28637), (223, 28550), (226, 28532), (237, 28466), (240, 28454),

Gene: Boohoo\_52 Start: 31787, Stop: 31089, Start Num: 49

Candidate Starts for Boohoo\_52:

(Start: 49 @31787 has 24 MA's), (81, 31730), (119, 31571), (130, 31481), (131, 31478), (165, 31400), (219, 31271), (223, 31256),

Gene: Bowtie\_50 Start: 32645, Stop: 31926, Start Num: 45

Candidate Starts for Bowtie\_50:

(Start: 45 @32645 has 334 MA's), (74, 32600), (119, 32408), (125, 32360), (130, 32318), (131, 32315), (155, 32249), (180, 32213), (210, 32162), (213, 32153), (219, 32105), (223, 32090), (240, 31994),

Gene: Bradman\_48 Start: 32001, Stop: 31303, Start Num: 46

Candidate Starts for Bradman\_48:

(Start: 46 @32001 has 1 MA's), (119, 31770), (125, 31722), (127, 31710), (132, 31662), (147, 31623), (208, 31548), (219, 31485), (223, 31470),

Gene: Bradshaw\_38 Start: 29170, Stop: 28409, Start Num: 48

Candidate Starts for Bradshaw\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (150, 28762), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: Braxoaddie\_18 Start: 8796, Stop: 9779, Start Num: 18

Candidate Starts for Braxoaddie\_18:

(Start: 18 @8796 has 1 MA's), (22, 8826), (30, 8865), (Start: 37 @8892 has 5 MA's), (58, 8931), (72, 8958), (85, 8988), (119, 9162), (144, 9312), (155, 9342), (182, 9417), (223, 9576), (234, 9651), (237, 9660),

Gene: BreSam8\_52 Start: 33200, Stop: 32493, Start Num: 45

Candidate Starts for BreSam8\_52:

(Start: 45 @33200 has 334 MA's), (118, 33008), (130, 32903), (137, 32870), (219, 32675), (223, 32660),

Gene: Broseidon\_48 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Broseidon\_48:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Bruiser\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Bruiser\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: BrutonGaster\_76 Start: 53061, Stop: 53798, Start Num: 57

Candidate Starts for BrutonGaster\_76:

(Start: 50 @53046 has 202 MA's), (Start: 57 @53061 has 10 MA's), (Start: 68 @53079 has 6 MA's), (91, 53133), (104, 53169), (105, 53172), (119, 53292), (128, 53358), (186, 53487), (247, 53718),

Gene: Bryce\_38 Start: 29145, Stop: 28384, Start Num: 48

Candidate Starts for Bryce\_38:

(Start: 27 @29217 has 8 MA's), (Start: 48 @29145 has 36 MA's), (119, 28893), (125, 28845), (132, 28785), (139, 28764), (159, 28713), (191, 28653), (204, 28638), (223, 28551), (226, 28533), (237, 28467), (240, 28455),

Gene: BubbleTrouble\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for BubbleTrouble\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Buckaroo\_47 Start: 32785, Stop: 32066, Start Num: 50

Candidate Starts for Buckaroo\_47:

(Start: 50 @32785 has 202 MA's), (119, 32557), (125, 32509), (137, 32434), (145, 32413), (147, 32410), (206, 32314), (216, 32260), (219, 32248), (223, 32233), (225, 32227),

Gene: Bud\_49 Start: 32195, Stop: 31482, Start Num: 45

Candidate Starts for Bud\_49:

(Start: 45 @32195 has 334 MA's), (77, 32144), (125, 31922), (130, 31880), (195, 31739), (213, 31709), (216, 31673), (219, 31661), (223, 31646), (225, 31640), (240, 31550),

Gene: Bugatti\_50 Start: 33076, Stop: 32348, Start Num: 45

Candidate Starts for Bugatti\_50:

(Start: 45 @33076 has 334 MA's), (111, 32896), (118, 32854), (130, 32749), (131, 32746), (174, 32647), (203, 32602), (219, 32530), (223, 32515),

Gene: Bugsy\_51 Start: 33612, Stop: 32884, Start Num: 45

Candidate Starts for Bugsy\_51:

(Start: 45 @33612 has 334 MA's), (119, 33375), (125, 33327), (130, 33285), (131, 33282), (213, 33114), (219, 33066), (223, 33051), (225, 33045),

Gene: Bumblebee11\_46 Start: 32757, Stop: 32038, Start Num: 50

Candidate Starts for Bumblebee11\_46:

(Start: 50 @32757 has 202 MA's), (119, 32529), (125, 32481), (131, 32436), (145, 32385), (147, 32382), (148, 32379), (206, 32286), (213, 32268), (219, 32220), (223, 32205),

Gene: Burger\_46 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Burger\_46:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: BuzzBuzz\_50 Start: 33237, Stop: 32530, Start Num: 45

Candidate Starts for BuzzBuzz\_50:

(Start: 45 @33237 has 334 MA's), (118, 33045), (219, 32712), (223, 32697),

Gene: Bxz2\_48 Start: 33244, Stop: 32537, Start Num: 45

Candidate Starts for Bxz2\_48:

(Start: 45 @33244 has 334 MA's), (118, 33052), (219, 32719), (223, 32704),

Gene: C3\_47 Start: 33241, Stop: 32555, Start Num: 45

Candidate Starts for C3\_47:

(Start: 45 @33241 has 334 MA's), (119, 33031), (131, 32938), (132, 32923), (203, 32815), (213, 32791), (216, 32755), (219, 32743), (223, 32728), (228, 32692), (240, 32632),

Gene: C3PO\_9 Start: 4740, Stop: 5513, Start Num: 48

Candidate Starts for C3PO\_9:

(Start: 48 @4740 has 36 MA's), (51, 4752), (69, 4776), (76, 4794), (122, 5016), (133, 5103), (196, 5214), (223, 5304), (226, 5322), (227, 5334), (245, 5412), (249, 5424),

Gene: CRB1\_53 Start: 33955, Stop: 33227, Start Num: 45

Candidate Starts for CRB1\_53:

(Start: 45 @33955 has 334 MA's), (119, 33718), (130, 33628), (131, 33625), (213, 33457), (219, 33409), (223, 33394), (225, 33388), (240, 33298),

Gene: Caelakin\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Caelakin\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Cafasso\_72 Start: 47063, Stop: 47767, Start Num: 68

Candidate Starts for Cafasso\_72:

(Start: 68 @47063 has 6 MA's), (103, 47147), (119, 47276), (125, 47324), (127, 47336), (130, 47366), (141, 47411), (204, 47513), (219, 47585), (223, 47600),

Gene: Calvinny\_52 Start: 33157, Stop: 32399, Start Num: 32

Candidate Starts for Calvinny\_52:

(Start: 32 @33157 has 1 MA's), (Start: 45 @33097 has 334 MA's), (118, 32905), (130, 32800), (131, 32797), (149, 32746), (213, 32629), (219, 32581), (223, 32566),

Gene: Camperdownii\_46 Start: 32454, Stop: 31735, Start Num: 50

Candidate Starts for Camperdownii\_46:

(Start: 50 @32454 has 202 MA's), (119, 32226), (125, 32178), (137, 32103), (145, 32082), (147, 32079), (206, 31983), (216, 31929), (219, 31917), (223, 31902), (225, 31896),

Gene: Candra\_51 Start: 32121, Stop: 31384, Start Num: 45

Candidate Starts for Candra\_51:

(Start: 45 @32121 has 334 MA's), (74, 32076), (119, 31884), (132, 31776), (147, 31734), (198, 31647), (219, 31572), (225, 31551), (241, 31458),

Gene: Caraxes\_49 Start: 31632, Stop: 30928, Start Num: 45

Candidate Starts for Caraxes\_49:

(Start: 45 @31632 has 334 MA's), (107, 31536), (130, 31335), (131, 31332), (141, 31290), (154, 31269), (178, 31224), (219, 31116), (223, 31101), (224, 31098), (225, 31095), (240, 31005),

Gene: Cardigan\_111 Start: 64862, Stop: 65608, Start Num: 55

Candidate Starts for Cardigan\_111:

(Start: 55 @64862 has 5 MA's), (59, 64868), (Start: 68 @64880 has 6 MA's), (72, 64889), (74, 64895), (89, 64928), (104, 64979), (109, 65012), (124, 65141), (128, 65168), (132, 65213), (141, 65228), (163, 65267), (170, 65279), (208, 65339), (213, 65351), (225, 65420), (227, 65444), (239, 65507), (250, 65543), (256, 65594),

Gene: Cat\_47 Start: 32597, Stop: 31875, Start Num: 45

Candidate Starts for Cat\_47:

(Start: 45 @32597 has 334 MA's), (64, 32570), (72, 32555), (162, 32189), (168, 32180), (174, 32174), (219, 32057), (223, 32042),

Gene: Catalina\_50 Start: 33025, Stop: 32321, Start Num: 45

Candidate Starts for Catalina\_50:

(Start: 45 @33025 has 334 MA's), (74, 32980), (75, 32977), (77, 32974), (118, 32833), (119, 32818), (125, 32770), (130, 32728), (219, 32509), (223, 32494),

Gene: Caviar\_48 Start: 33068, Stop: 32286, Start Num: 33

Candidate Starts for Caviar\_48:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: Celestiallunch\_47 Start: 32606, Stop: 31905, Start Num: 45

Candidate Starts for Celestiallunch\_47:

(Start: 45 @32606 has 334 MA's), (118, 32411), (119, 32396), (125, 32348), (135, 32279), (150, 32240), (198, 32162), (219, 32087), (223, 32072), (225, 32066), (240, 31976),

Gene: Centaur\_50 Start: 33459, Stop: 32731, Start Num: 45

Candidate Starts for Centaur\_50:

(Start: 45 @33459 has 334 MA's), (119, 33222), (125, 33174), (130, 33132), (131, 33129), (213, 32961), (219, 32913), (223, 32898), (225, 32892),

Gene: CentreCat\_48 Start: 32784, Stop: 32065, Start Num: 50

Candidate Starts for CentreCat\_48:

(Start: 50 @32784 has 202 MA's), (119, 32556), (125, 32508), (137, 32433), (145, 32412), (147, 32409), (206, 32313), (216, 32259), (219, 32247), (223, 32232), (225, 32226),

Gene: Cerulean\_49 Start: 33204, Stop: 32485, Start Num: 50

Candidate Starts for Cerulean\_49:

(Start: 50 @33204 has 202 MA's), (74, 33159), (119, 32976), (125, 32928), (145, 32832), (147, 32829), (216, 32679), (219, 32667), (223, 32652), (225, 32646),

Gene: Chadwick\_45 Start: 31672, Stop: 30968, Start Num: 50

Candidate Starts for Chadwick\_45:

(Start: 50 @31672 has 202 MA's), (117, 31477), (118, 31471), (125, 31408), (130, 31366), (131, 31363), (138, 31330), (174, 31264), (213, 31195), (219, 31147), (223, 31132),

Gene: ChampagnePapi\_50 Start: 33203, Stop: 32484, Start Num: 50

Candidate Starts for ChampagnePapi\_50:

(Start: 50 @33203 has 202 MA's), (74, 33158), (119, 32975), (125, 32927), (145, 32831), (147, 32828), (216, 32678), (219, 32666), (223, 32651), (225, 32645),

Gene: Changeling\_48 Start: 33661, Stop: 32930, Start Num: 45

Candidate Starts for Changeling\_48:

(Start: 45 @33661 has 334 MA's), (119, 33427), (130, 33337), (131, 33334), (175, 33232), (203, 33190), (213, 33166), (219, 33118), (223, 33103), (225, 33097), (228, 33067), (241, 33004),

Gene: Chaph\_48 Start: 32792, Stop: 32073, Start Num: 50

Candidate Starts for Chaph\_48:

(Start: 50 @32792 has 202 MA's), (119, 32564), (125, 32516), (137, 32441), (145, 32420), (147, 32417), (206, 32321), (216, 32267), (219, 32255), (223, 32240), (225, 32234),

Gene: Chargerpower\_48 Start: 31983, Stop: 31276, Start Num: 45

Candidate Starts for Chargerpower\_48:

(Start: 45 @31983 has 334 MA's), (119, 31773), (125, 31725), (130, 31683), (131, 31680), (135, 31656), (189, 31554), (198, 31539), (213, 31512), (219, 31464), (223, 31449), (240, 31353),

Gene: Charm\_48 Start: 32829, Stop: 32122, Start Num: 45

Candidate Starts for Charm\_48:

(Start: 45 @32829 has 334 MA's), (118, 32634), (119, 32619), (125, 32571), (135, 32502), (198, 32385), (206, 32376), (219, 32310), (223, 32295),

Gene: Chartreuse\_50 Start: 31481, Stop: 30744, Start Num: 45

Candidate Starts for Chartreuse\_50:

(Start: 45 @31481 has 334 MA's), (74, 31436), (119, 31244), (132, 31136), (147, 31094), (198, 31007), (219, 30932), (223, 30917), (225, 30911), (241, 30818),

Gene: Che12\_51 Start: 32066, Stop: 31362, Start Num: 45

Candidate Starts for Che12\_51:

(Start: 45 @32066 has 334 MA's), (126, 31808), (131, 31766), (141, 31724), (154, 31703), (174, 31667), (178, 31658), (219, 31550), (223, 31535), (228, 31499), (240, 31439),

Gene: CherryTomatoes\_64 Start: 21847, Stop: 22584, Start Num: 57

Candidate Starts for CherryTomatoes\_64:

(Start: 57 @21847 has 10 MA's), (91, 21919), (109, 21988), (144, 22216), (163, 22243), (192, 22282), (225, 22396), (239, 22483), (256, 22570),

Gene: ChewyVIII\_31 Start: 14882, Stop: 15733, Start Num: 46

Candidate Starts for ChewyVIII\_31:

(Start: 46 @14882 has 1 MA's), (78, 14948), (88, 14972), (103, 15029), (134, 15275), (146, 15317), (156, 15347), (198, 15437), (199, 15440), (214, 15515), (217, 15530), (219, 15539), (227, 15584), (239, 15647), (255, 15725),

Gene: ChipMunk\_51 Start: 34806, Stop: 34081, Start Num: 45

Candidate Starts for ChipMunk\_51:

(Start: 45 @34806 has 334 MA's), (119, 34572), (130, 34482), (131, 34479), (145, 34428), (170, 34383), (175, 34377), (213, 34311), (219, 34263), (223, 34248), (225, 34242),

Gene: Chiqui\_47 Start: 33064, Stop: 32330, Start Num: 45

Candidate Starts for Chiqui\_47:

(Start: 45 @33064 has 334 MA's), (70, 33028), (119, 32821), (130, 32731), (131, 32728), (174, 32629), (206, 32578), (219, 32512), (223, 32497), (240, 32401),

Gene: Chupacabra\_46 Start: 32406, Stop: 31678, Start Num: 44

Candidate Starts for Chupacabra\_46:

(Start: 44 @32406 has 13 MA's), (Start: 50 @32400 has 202 MA's), (54, 32388), (117, 32190), (119, 32169), (125, 32121), (130, 32079), (131, 32076), (139, 32040), (150, 32013), (168, 31986), (219, 31860), (223, 31845), (225, 31839),

Gene: Cici\_47 Start: 32772, Stop: 32053, Start Num: 50

Candidate Starts for Cici\_47:

(Start: 50 @32772 has 202 MA's), (119, 32544), (125, 32496), (131, 32451), (145, 32400), (147, 32397), (148, 32394), (206, 32301), (213, 32283), (219, 32235), (223, 32220),

Gene: Cindaradix\_45 Start: 32397, Stop: 31678, Start Num: 50

Candidate Starts for Cindaradix\_45:

(Start: 50 @32397 has 202 MA's), (119, 32169), (137, 32046), (147, 32022), (148, 32019), (206, 31926), (216, 31872), (219, 31860), (223, 31845),

Gene: Cintron\_47 Start: 32761, Stop: 32042, Start Num: 50

Candidate Starts for Cintron\_47:

(Start: 50 @32761 has 202 MA's), (119, 32533), (125, 32485), (137, 32410), (145, 32389), (147, 32386), (206, 32290), (216, 32236), (219, 32224), (223, 32209), (225, 32203),

Gene: Citius\_48 Start: 32802, Stop: 32083, Start Num: 50

Candidate Starts for Citius\_48:

(Start: 50 @32802 has 202 MA's), (119, 32574), (125, 32526), (137, 32451), (145, 32430), (147, 32427), (206, 32331), (216, 32277), (219, 32265), (223, 32250), (225, 32244),

Gene: Clammy\_50 Start: 33076, Stop: 32348, Start Num: 45

Candidate Starts for Clammy\_50:

(Start: 45 @33076 has 334 MA's), (111, 32896), (118, 32854), (130, 32749), (131, 32746), (174, 32647), (203, 32602), (219, 32530), (223, 32515),

Gene: Clarenza\_47 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Clarenza\_47:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: CloudWang3\_51 Start: 31870, Stop: 31142, Start Num: 45

Candidate Starts for CloudWang3\_51:

(Start: 45 @31870 has 334 MA's), (74, 31825), (119, 31633), (125, 31585), (130, 31543), (131, 31540), (155, 31474), (180, 31438), (210, 31387), (213, 31378), (219, 31330), (223, 31315), (241, 31216),

Gene: ClownCar\_52 Start: 33090, Stop: 32392, Start Num: 45

Candidate Starts for ClownCar\_52:

(Start: 32 @33150 has 1 MA's), (Start: 45 @33090 has 334 MA's), (118, 32898), (130, 32793), (131, 32790), (149, 32739), (213, 32622), (219, 32574), (223, 32559),

Gene: Cocoaberry\_48 Start: 32785, Stop: 32066, Start Num: 50

Candidate Starts for Cocoaberry\_48:

(Start: 50 @32785 has 202 MA's), (119, 32557), (125, 32509), (137, 32434), (145, 32413), (147, 32410), (206, 32314), (216, 32260), (219, 32248), (223, 32233), (225, 32227),

Gene: CoffeeBean\_18 Start: 8823, Stop: 9716, Start Num: 37

Candidate Starts for CoffeeBean\_18:

(Start: 37 @8823 has 5 MA's), (58, 8865), (72, 8892), (85, 8922), (119, 9096), (144, 9246), (205, 9426), (224, 9516), (230, 9555), (234, 9588),

Gene: CogOmlette\_48 Start: 32545, Stop: 31844, Start Num: 45

Candidate Starts for CogOmlette\_48:

(Start: 45 @32545 has 334 MA's), (119, 32335), (125, 32287), (130, 32245), (135, 32218), (147, 32188), (150, 32179), (162, 32158), (198, 32101), (213, 32074), (219, 32026), (223, 32011),

Gene: Colbster\_52 Start: 33210, Stop: 32503, Start Num: 45

Candidate Starts for Colbster\_52:

(Start: 45 @33210 has 334 MA's), (118, 33018), (130, 32913), (137, 32880), (219, 32685), (223, 32670),

Gene: Colin\_49 Start: 33432, Stop: 32701, Start Num: 45

Candidate Starts for Colin\_49:

(Start: 45 @33432 has 334 MA's), (66, 33402), (74, 33387), (125, 33150), (130, 33108), (131, 33105), (145, 33054), (213, 32937), (219, 32889), (223, 32874), (228, 32838),

Gene: Commander\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for Commander\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: Connomayer\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Connomayer\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Conquerage\_49 Start: 33048, Stop: 32344, Start Num: 45

Candidate Starts for Conquerage\_49:

(Start: 45 @33048 has 334 MA's), (74, 33003), (75, 33000), (77, 32997), (118, 32856), (119, 32841), (125, 32793), (130, 32751), (219, 32532), (223, 32517),

Gene: Conspiracy\_41 Start: 31718, Stop: 30999, Start Num: 50

Candidate Starts for Conspiracy\_41:

(Start: 50 @31718 has 202 MA's), (77, 31664), (90, 31640), (103, 31616), (120, 31484), (147, 31340), (208, 31241), (219, 31178), (223, 31163), (228, 31127), (239, 31070),

Gene: Coog\_41 Start: 31816, Stop: 31097, Start Num: 50

Candidate Starts for Coog\_41:

(Start: 50 @31816 has 202 MA's), (77, 31762), (90, 31738), (103, 31714), (120, 31582), (147, 31438), (208, 31339), (219, 31276), (223, 31261), (228, 31225), (239, 31168),

Gene: Cookiedough\_51 Start: 32094, Stop: 31360, Start Num: 45

Candidate Starts for Cookiedough\_51:

(Start: 45 @32094 has 334 MA's), (74, 32049), (92, 32013), (119, 31857), (130, 31767), (131, 31764), (145, 31713), (198, 31623), (203, 31620), (213, 31596), (219, 31548), (223, 31533), (225, 31527), (241, 31434),

Gene: CosmicSans\_38 Start: 29242, Stop: 28409, Start Num: 27

Candidate Starts for CosmicSans\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (150, 28762), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: Croquant\_53 Start: 33205, Stop: 32498, Start Num: 45

Candidate Starts for Croquant\_53:

(Start: 45 @33205 has 334 MA's), (118, 33013), (130, 32908), (137, 32875), (219, 32680), (223, 32665),

Gene: Crucio\_49 Start: 33049, Stop: 32324, Start Num: 45

Candidate Starts for Crucio\_49:

(Start: 45 @33049 has 334 MA's), (119, 32815), (130, 32725), (131, 32722), (145, 32671), (152, 32656), (203, 32578), (213, 32554), (219, 32506), (223, 32491), (224, 32488), (225, 32485), (240, 32395),

Gene: Cruella\_9 Start: 4740, Stop: 5513, Start Num: 48

Candidate Starts for Cruella\_9:

(Start: 48 @4740 has 36 MA's), (51, 4752), (69, 4776), (76, 4794), (122, 5016), (133, 5103), (196, 5214), (223, 5304), (226, 5322), (227, 5334), (245, 5412), (249, 5424),

Gene: Cuco\_41 Start: 31773, Stop: 31054, Start Num: 50

Candidate Starts for Cuco\_41:

(Start: 50 @31773 has 202 MA's), (74, 31725), (90, 31695), (130, 31452), (131, 31449), (147, 31395), (150, 31386), (203, 31308), (204, 31305), (219, 31233), (223, 31218), (228, 31182), (240, 31122),

Gene: Cullens\_52 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for Cullens\_52:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: D29\_48 Start: 32823, Stop: 32116, Start Num: 45

Candidate Starts for D29\_48:

(Start: 45 @32823 has 334 MA's), (118, 32628), (119, 32613), (130, 32523), (131, 32520), (141, 32478), (219, 32304), (223, 32289), (240, 32193),

Gene: D32\_50 Start: 32823, Stop: 32116, Start Num: 45

Candidate Starts for D32\_50:

(Start: 45 @32823 has 334 MA's), (118, 32628), (119, 32613), (130, 32523), (131, 32520), (141, 32478), (219, 32304), (223, 32289), (240, 32193),

Gene: DBQu4n\_51 Start: 32822, Stop: 32115, Start Num: 45

Candidate Starts for DBQu4n\_51:

(Start: 45 @32822 has 334 MA's), (118, 32627), (119, 32612), (130, 32522), (131, 32519), (141, 32477), (219, 32303), (223, 32288), (240, 32192),

Gene: DaHudson\_52 Start: 33199, Stop: 32492, Start Num: 45

Candidate Starts for DaHudson\_52:

(Start: 45 @33199 has 334 MA's), (118, 33007), (130, 32902), (137, 32869), (219, 32674), (223, 32659),

Gene: DaVinci\_50 Start: 31535, Stop: 30798, Start Num: 45

Candidate Starts for DaVinci\_50:

(Start: 45 @31535 has 334 MA's), (74, 31490), (119, 31298), (132, 31190), (147, 31148), (198, 31061), (219, 30986), (223, 30971), (225, 30965), (241, 30872),

Gene: Daishi\_51 Start: 32078, Stop: 31371, Start Num: 45

Candidate Starts for Daishi\_51:

(Start: 45 @32078 has 334 MA's), (118, 31886), (219, 31553), (223, 31538),

Gene: Dalmatian\_50 Start: 33441, Stop: 32716, Start Num: 45

Candidate Starts for Dalmatian\_50:

(Start: 45 @33441 has 334 MA's), (119, 33207), (130, 33117), (131, 33114), (145, 33063), (175, 33012), (213, 32946), (219, 32898), (223, 32883), (225, 32877), (228, 32847), (240, 32787),

Gene: Darrell\_51 Start: 33640, Stop: 32939, Start Num: 45

Candidate Starts for Darrell\_51:

(Start: 45 @33640 has 334 MA's), (118, 33445), (119, 33430), (125, 33382), (130, 33340), (135, 33313), (147, 33283), (150, 33274), (162, 33253), (198, 33196), (219, 33121), (223, 33106),

Gene: DARTHPhader\_46 Start: 33859, Stop: 33155, Start Num: 45

Candidate Starts for DARTHPhader\_46:

(Start: 45 @33859 has 334 MA's), (118, 33667), (119, 33652), (131, 33559), (216, 33355), (219, 33343), (223, 33328), (225, 33322), (228, 33292), (248, 33211),

Gene: Darwin\_9 Start: 4738, Stop: 5511, Start Num: 48

Candidate Starts for Darwin\_9:

(Start: 48 @4738 has 36 MA's), (51, 4750), (69, 4774), (76, 4792), (122, 5014), (132, 5098), (133, 5101), (179, 5182), (196, 5212), (222, 5296), (223, 5302), (226, 5320), (227, 5332), (245, 5410), (249, 5422),

Gene: Datway\_47 Start: 32743, Stop: 32024, Start Num: 50

Candidate Starts for Datway\_47:

(Start: 50 @32743 has 202 MA's), (119, 32515), (125, 32467), (131, 32422), (145, 32371), (147, 32368), (148, 32365), (206, 32272), (213, 32254), (219, 32206), (223, 32191),

Gene: Deano\_47 Start: 32789, Stop: 32070, Start Num: 50

Candidate Starts for Deano\_47:

(Start: 50 @32789 has 202 MA's), (119, 32561), (125, 32513), (137, 32438), (145, 32417), (206, 32318), (216, 32264), (219, 32252), (223, 32237), (225, 32231),

Gene: DeerParkTS\_47 Start: 32578, Stop: 31844, Start Num: 45

Candidate Starts for DeerParkTS\_47:

(Start: 45 @32578 has 334 MA's), (125, 32293), (130, 32251), (131, 32248), (213, 32080), (219, 32032), (223, 32017), (225, 32011), (228, 31981),

Gene: DekHockey33\_52 Start: 32026, Stop: 31304, Start Num: 49

Candidate Starts for DekHockey33\_52:

(Start: 49 @32026 has 24 MA's), (87, 31948), (92, 31936), (119, 31786), (130, 31696), (131, 31693), (165, 31615), (219, 31486), (223, 31471),

Gene: Deloris\_50 Start: 33234, Stop: 32506, Start Num: 45

Candidate Starts for Deloris\_50:

(Start: 45 @33234 has 334 MA's), (119, 32997), (130, 32907), (131, 32904), (170, 32808), (175, 32802), (189, 32778), (203, 32760), (219, 32688), (223, 32673), (225, 32667), (240, 32577),

Gene: DelvinSonDorr\_49 Start: 31970, Stop: 31236, Start Num: 45

Candidate Starts for DelvinSonDorr\_49:

(Start: 45 @31970 has 334 MA's), (74, 31925), (119, 31733), (125, 31685), (130, 31643), (131, 31640), (145, 31589), (213, 31472), (219, 31424), (223, 31409), (225, 31403), (241, 31310),

Gene: Dhanush\_48 Start: 32784, Stop: 32065, Start Num: 50

Candidate Starts for Dhanush\_48:

(Start: 50 @32784 has 202 MA's), (119, 32556), (125, 32508), (137, 32433), (145, 32412), (147, 32409), (206, 32313), (216, 32259), (219, 32247), (223, 32232), (225, 32226),

Gene: Dieselweasel\_53 Start: 33209, Stop: 32502, Start Num: 45

Candidate Starts for Dieselweasel\_53:

(Start: 45 @33209 has 334 MA's), (118, 33017), (130, 32912), (137, 32879), (219, 32684), (223, 32669),

Gene: Dignity\_51 Start: 33614, Stop: 32889, Start Num: 45

Candidate Starts for Dignity\_51:

(Start: 45 @33614 has 334 MA's), (119, 33380), (130, 33290), (131, 33287), (175, 33185), (213, 33119), (219, 33071), (223, 33056), (225, 33050),

Gene: Dinger\_38 Start: 29233, Stop: 28472, Start Num: 48

Candidate Starts for Dinger\_38:

(Start: 27 @29305 has 8 MA's), (Start: 48 @29233 has 36 MA's), (119, 28981), (125, 28933), (132, 28873), (139, 28852), (159, 28801), (191, 28741), (204, 28726), (223, 28639), (226, 28621),

Gene: DirtyDunning\_47 Start: 32802, Stop: 32083, Start Num: 50

Candidate Starts for DirtyDunning\_47:

(Start: 50 @32802 has 202 MA's), (74, 32757), (119, 32574), (145, 32430), (147, 32427), (206, 32331), (219, 32265), (223, 32250),

Gene: Discoknowium\_40 Start: 31509, Stop: 30796, Start Num: 50

Candidate Starts for Discoknowium\_40:

(Start: 50 @31509 has 202 MA's), (74, 31461), (90, 31431), (118, 31293), (127, 31218), (130, 31188), (131, 31185), (155, 31119), (176, 31083), (209, 31032), (212, 31023), (219, 30975), (223, 30960), (228, 30924), (239, 30867),

Gene: DontArgue\_46 Start: 31645, Stop: 30914, Start Num: 44

Candidate Starts for DontArgue\_46:

(Start: 44 @31645 has 13 MA's), (Start: 50 @31636 has 202 MA's), (119, 31405), (130, 31315), (131, 31312), (173, 31216), (174, 31213), (216, 31108), (219, 31096), (223, 31081), (240, 30985),

Gene: Dorothea\_51 Start: 32104, Stop: 31367, Start Num: 45

Candidate Starts for Dorothea\_51:

(Start: 45 @32104 has 334 MA's), (74, 32059), (119, 31867), (132, 31759), (147, 31717), (198, 31630), (219, 31555), (223, 31540), (225, 31534), (241, 31441),

Gene: Drake55\_51 Start: 33535, Stop: 32807, Start Num: 45

Candidate Starts for Drake55\_51:

(Start: 45 @33535 has 334 MA's), (119, 33298), (125, 33250), (130, 33208), (131, 33205), (213, 33037), (219, 32989), (223, 32974), (225, 32968),

Gene: Drake94\_45 Start: 31682, Stop: 30954, Start Num: 44

Candidate Starts for Drake94\_45:

(Start: 44 @31682 has 13 MA's), (Start: 50 @31676 has 202 MA's), (119, 31445), (125, 31397), (130, 31355), (131, 31352), (139, 31316), (150, 31289), (219, 31136), (223, 31121), (240, 31025),

Gene: DreamTeam1\_48 Start: 32703, Stop: 31996, Start Num: 45

Candidate Starts for DreamTeam1\_48:

(Start: 45 @32703 has 334 MA's), (118, 32508), (119, 32493), (125, 32445), (135, 32376), (198, 32259), (206, 32250), (219, 32184), (223, 32169),

Gene: DropBear\_49 Start: 32964, Stop: 32236, Start Num: 45

Candidate Starts for DropBear\_49:

(Start: 45 @32964 has 334 MA's), (70, 32928), (111, 32784), (118, 32742), (130, 32637), (131, 32634), (174, 32535), (219, 32418), (223, 32403), (225, 32397),

Gene: Druantia\_48 Start: 32784, Stop: 32065, Start Num: 50

Candidate Starts for Druantia\_48:

(Start: 50 @32784 has 202 MA's), (119, 32556), (125, 32508), (137, 32433), (145, 32412), (147, 32409), (206, 32313), (216, 32259), (219, 32247), (223, 32232), (225, 32226),

Gene: Dublin\_40 Start: 31537, Stop: 30818, Start Num: 50

Candidate Starts for Dublin\_40:

(Start: 50 @31537 has 202 MA's), (74, 31489), (90, 31459), (125, 31258), (126, 31255), (131, 31213), (216, 31009), (219, 30997), (223, 30982), (228, 30946), (229, 30943), (240, 30886),

Gene: DudeLittle\_48 Start: 33183, Stop: 32458, Start Num: 45

Candidate Starts for DudeLittle\_48:

(Start: 45 @33183 has 334 MA's), (119, 32949), (130, 32859), (131, 32856), (145, 32805), (213, 32688), (219, 32640), (223, 32625), (225, 32619),

Gene: Duplo\_51 Start: 32860, Stop: 32153, Start Num: 45

Candidate Starts for Duplo\_51:

(Start: 45 @32860 has 334 MA's), (118, 32665), (119, 32650), (130, 32560), (131, 32557), (141, 32515), (219, 32341), (223, 32326), (240, 32230),

Gene: DustyMartin\_51 Start: 32495, Stop: 31758, Start Num: 44

Candidate Starts for DustyMartin\_51:

(Start: 44 @32495 has 13 MA's), (Start: 50 @32489 has 202 MA's), (92, 32402), (119, 32249), (125, 32201), (130, 32159), (131, 32156), (147, 32102), (158, 32087), (175, 32054), (206, 32006), (219, 31940), (223, 31925), (240, 31829),

Gene: E3\_gp66 Start: 25499, Stop: 26308, Start Num: 45

Candidate Starts for E3\_gp66:

(Start: 45 @25499 has 334 MA's), (61, 25529), (Start: 68 @25544 has 6 MA's), (121, 25793), (143, 25910), (190, 25973), (218, 26063), (223, 26084), (224, 26087), (225, 26090), (237, 26168), (256, 26267), (258, 26273), (259, 26297),

Gene: EZMoney23\_47 Start: 32987, Stop: 32256, Start Num: 45

Candidate Starts for EZMoney23\_47:

(Start: 45 @32987 has 334 MA's), (74, 32942), (118, 32768), (119, 32753), (130, 32663), (131, 32660), (145, 32609), (219, 32444), (223, 32429), (225, 32423), (240, 32333),

Gene: Eagle\_48 Start: 32806, Stop: 32087, Start Num: 50

Candidate Starts for Eagle\_48:

(Start: 50 @32806 has 202 MA's), (119, 32578), (125, 32530), (137, 32455), (145, 32434), (147, 32431), (206, 32335), (216, 32281), (219, 32269), (223, 32254), (225, 32248),

Gene: EagleEye\_51 Start: 32618, Stop: 31875, Start Num: 45

Candidate Starts for EagleEye\_51:

(Start: 45 @32618 has 334 MA's), (130, 32291), (131, 32288), (141, 32246), (219, 32063), (223, 32048),

Gene: Eaglepride\_48 Start: 32476, Stop: 31748, Start Num: 44

Candidate Starts for Eaglepride\_48:

(Start: 44 @32476 has 13 MA's), (Start: 50 @32470 has 202 MA's), (117, 32260), (119, 32239), (125, 32191), (130, 32149), (131, 32146), (139, 32110), (150, 32083), (219, 31930), (223, 31915), (240, 31819),

Gene: Eapen\_48 Start: 32776, Stop: 32057, Start Num: 50

Candidate Starts for Eapen\_48:

(Start: 50 @32776 has 202 MA's), (119, 32548), (125, 32500), (137, 32425), (145, 32404), (147, 32401), (206, 32305), (216, 32251), (219, 32239), (223, 32224), (225, 32218),

Gene: Ebony\_49 Start: 32212, Stop: 31499, Start Num: 45

Candidate Starts for Ebony\_49:

(Start: 45 @32212 has 334 MA's), (77, 32161), (125, 31939), (130, 31897), (195, 31756), (213, 31726), (216, 31690), (219, 31678), (223, 31663), (225, 31657), (240, 31567),

Gene: Echild\_49 Start: 32520, Stop: 31795, Start Num: 45

Candidate Starts for Echild\_49:

(Start: 45 @32520 has 334 MA's), (119, 32286), (130, 32196), (131, 32193), (145, 32142), (189, 32067), (219, 31977), (223, 31962), (225, 31956), (240, 31866),

Gene: Edison31\_46 Start: 32435, Stop: 31698, Start Num: 44

Candidate Starts for Edison31\_46:

(Start: 44 @32435 has 13 MA's), (Start: 50 @32429 has 202 MA's), (119, 32189), (125, 32141), (130, 32099), (131, 32096), (158, 32027), (175, 31994), (203, 31955), (219, 31880), (223, 31865), (228, 31829), (240, 31769),

Gene: EdogawaKiddo\_47 Start: 33025, Stop: 32321, Start Num: 45

Candidate Starts for EdogawaKiddo\_47:

(Start: 45 @33025 has 334 MA's), (74, 32980), (75, 32977), (77, 32974), (118, 32833), (119, 32818), (125, 32770), (130, 32728), (219, 32509), (223, 32494),

Gene: EhyElimayoE\_6 Start: 3780, Stop: 2992, Start Num: 56

Candidate Starts for EhyElimayoE\_6:

(35, 3849), (Start: 56 @3780 has 8 MA's), (63, 3771), (70, 3759), (119, 3513), (124, 3474), (132, 3399), (180, 3309), (193, 3288), (215, 3219), (221, 3195), (223, 3183), (237, 3099), (244, 3075), (257, 2997),

Gene: Eidsmoe\_49 Start: 33088, Stop: 32384, Start Num: 45

Candidate Starts for Eidsmoe\_49:

(Start: 45 @33088 has 334 MA's), (74, 33043), (75, 33040), (77, 33037), (118, 32896), (119, 32881), (125, 32833), (130, 32791), (219, 32572), (223, 32557),

Gene: ElTiger69\_43 Start: 31689, Stop: 30985, Start Num: 50

Candidate Starts for ElTiger69\_43:

(Start: 50 @31689 has 202 MA's), (125, 31425), (145, 31329), (147, 31326), (148, 31323), (208, 31227), (219, 31164), (223, 31149), (232, 31092),

Gene: Elephantoon\_48 Start: 32391, Stop: 31690, Start Num: 45

Candidate Starts for Elephantoon\_48:

(Start: 45 @32391 has 334 MA's), (118, 32196), (125, 32133), (130, 32091), (135, 32064), (147, 32034), (150, 32025), (162, 32004), (198, 31947), (219, 31872), (223, 31857),

Gene: Elle\_46 Start: 29802, Stop: 29068, Start Num: 49

Candidate Starts for Elle\_46:

(Start: 49 @29802 has 24 MA's), (94, 29712), (119, 29559), (130, 29469), (137, 29436), (172, 29370), (219, 29250), (223, 29235), (240, 29139),

Gene: EmyBug\_48 Start: 33090, Stop: 32386, Start Num: 45

Candidate Starts for EmyBug\_48:

(Start: 45 @33090 has 334 MA's), (74, 33045), (75, 33042), (77, 33039), (118, 32898), (119, 32883), (125, 32835), (130, 32793), (219, 32574), (223, 32559),

Gene: EpicPhail\_53 Start: 33210, Stop: 32503, Start Num: 45

Candidate Starts for EpicPhail\_53:

(Start: 45 @33210 has 334 MA's), (118, 33018), (130, 32913), (137, 32880), (219, 32685), (223, 32670),

Gene: Epsocamisio\_50 Start: 31322, Stop: 30624, Start Num: 49

Candidate Starts for Epsocamisio\_50:

(Start: 49 @31322 has 24 MA's), (81, 31265), (119, 31106), (130, 31016), (131, 31013), (165, 30935), (219, 30806), (223, 30791),

Gene: Equemioh13\_50 Start: 33361, Stop: 32633, Start Num: 45

Candidate Starts for Equemioh13\_50:

(Start: 45 @33361 has 334 MA's), (119, 33124), (125, 33076), (130, 33034), (131, 33031), (213, 32863), (219, 32815), (223, 32800), (225, 32794),

Gene: EricB\_51 Start: 32078, Stop: 31341, Start Num: 45

Candidate Starts for EricB\_51:

(Start: 45 @32078 has 334 MA's), (74, 32033), (119, 31841), (132, 31733), (147, 31691), (198, 31604), (219, 31529), (223, 31514), (225, 31508), (241, 31415),

Gene: Erik\_38 Start: 29168, Stop: 28407, Start Num: 48

Candidate Starts for Erik\_38:

(26, 29255), (Start: 27 @29240 has 8 MA's), (Start: 48 @29168 has 36 MA's), (54, 29153), (119, 28916), (125, 28868), (132, 28808), (139, 28787), (159, 28736), (191, 28676), (204, 28661), (223, 28574), (226, 28556), (237, 28490), (240, 28478),

Gene: Eris\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Eris\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Eros\_48 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Eros\_48:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Espica\_38 Start: 29243, Stop: 28410, Start Num: 27

Candidate Starts for Espica\_38:

(Start: 27 @29243 has 8 MA's), (Start: 48 @29171 has 36 MA's), (119, 28919), (125, 28871), (132, 28811), (139, 28790), (159, 28739), (191, 28679), (204, 28664), (223, 28577), (226, 28559), (237, 28493), (240, 28481),

Gene: Et2Brutus\_48 Start: 32172, Stop: 31459, Start Num: 45

Candidate Starts for Et2Brutus\_48:

(Start: 45 @32172 has 334 MA's), (77, 32121), (125, 31899), (130, 31857), (195, 31716), (213, 31686), (216, 31650), (219, 31638), (223, 31623), (225, 31617), (240, 31527),

Gene: EtoileNova\_49 Start: 33018, Stop: 32290, Start Num: 45

Candidate Starts for EtoileNova\_49:

(Start: 33 @33072 has 7 MA's), (Start: 45 @33018 has 334 MA's), (70, 32982), (118, 32796), (130, 32691), (174, 32589), (219, 32472), (223, 32457), (240, 32361),

Gene: Eurydice\_49 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Eurydice\_49:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: EvilGenius\_51 Start: 34810, Stop: 34085, Start Num: 45

Candidate Starts for EvilGenius\_51:

(Start: 45 @34810 has 334 MA's), (119, 34576), (130, 34486), (131, 34483), (145, 34432), (170, 34387), (175, 34381), (213, 34315), (219, 34267), (223, 34252), (225, 34246),

Gene: ExplosioNervosa\_49 Start: 33108, Stop: 32404, Start Num: 45

Candidate Starts for ExplosioNervosa\_49:

(Start: 45 @33108 has 334 MA's), (74, 33063), (75, 33060), (77, 33057), (118, 32916), (119, 32901), (125, 32853), (130, 32811), (219, 32592), (223, 32577),

Gene: Fameo\_49 Start: 33359, Stop: 32634, Start Num: 45

Candidate Starts for Fameo\_49:

(Start: 45 @33359 has 334 MA's), (119, 33125), (130, 33035), (131, 33032), (145, 32981), (152, 32966), (203, 32888), (219, 32816), (223, 32801), (225, 32795),

Gene: Farber\_52 Start: 33199, Stop: 32492, Start Num: 45

Candidate Starts for Farber\_52:

(Start: 45 @33199 has 334 MA's), (118, 33007), (219, 32674), (223, 32659),

Gene: FatCactus\_41 Start: 30367, Stop: 29636, Start Num: 47

Candidate Starts for FatCactus\_41:

(Start: 47 @30367 has 1 MA's), (125, 30079), (130, 30037), (131, 30034), (141, 29992), (165, 29944), (213, 29866), (219, 29818), (223, 29803), (228, 29767), (237, 29719),

Gene: Fayely\_49 Start: 33057, Stop: 32353, Start Num: 45

Candidate Starts for Fayely\_49:

(Start: 45 @33057 has 334 MA's), (74, 33012), (75, 33009), (77, 33006), (118, 32865), (119, 32850), (125, 32802), (130, 32760), (219, 32541), (223, 32526),

Gene: Fernando\_52 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for Fernando\_52:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: Fibonacci\_49 Start: 32187, Stop: 31474, Start Num: 45

Candidate Starts for Fibonacci\_49:

(Start: 45 @32187 has 334 MA's), (77, 32136), (125, 31914), (130, 31872), (195, 31731), (213, 31701), (216, 31665), (219, 31653), (223, 31638), (225, 31632), (240, 31542),

Gene: FiringLine\_49 Start: 33030, Stop: 32305, Start Num: 45

Candidate Starts for FiringLine\_49:

(Start: 45 @33030 has 334 MA's), (119, 32796), (130, 32706), (131, 32703), (145, 32652), (170, 32607), (175, 32601), (213, 32535), (219, 32487), (223, 32472), (225, 32466), (240, 32376),

Gene: First\_0051 Start: 33488, Stop: 32760, Start Num: 45

Candidate Starts for First\_0051:

(Start: 45 @33488 has 334 MA's), (119, 33251), (130, 33161), (131, 33158), (175, 33056), (213, 32990), (219, 32942), (223, 32927), (225, 32921), (240, 32831),

Gene: Flare16\_49 Start: 33120, Stop: 32392, Start Num: 45

Candidate Starts for Flare16\_49:

(Start: 45 @33120 has 334 MA's), (119, 32883), (125, 32835), (130, 32793), (131, 32790), (213, 32622), (219, 32574), (223, 32559), (225, 32553),

Gene: Flaverint\_50 Start: 32639, Stop: 31920, Start Num: 45

Candidate Starts for Flaverint\_50:

(Start: 45 @32639 has 334 MA's), (74, 32594), (119, 32402), (125, 32354), (130, 32312), (131, 32309), (155, 32243), (180, 32207), (210, 32156), (213, 32147), (219, 32099), (223, 32084), (240, 31988),

Gene: Florean\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for Florean\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: Florence1\_40 Start: 31384, Stop: 30671, Start Num: 50

Candidate Starts for Florence1\_40:

(Start: 50 @31384 has 202 MA's), (74, 31336), (90, 31306), (125, 31105), (130, 31063), (131, 31060), (155, 30994), (176, 30958), (209, 30907), (212, 30898), (219, 30850), (223, 30835), (228, 30799), (240, 30739),

Gene: Florence4\_41 Start: 31384, Stop: 30671, Start Num: 50

Candidate Starts for Florence4\_41:

(Start: 50 @31384 has 202 MA's), (74, 31336), (90, 31306), (125, 31105), (130, 31063), (131, 31060), (155, 30994), (176, 30958), (209, 30907), (212, 30898), (219, 30850), (223, 30835), (228, 30799), (240, 30739),

Gene: Flux\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for Flux\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: FlyCatcher\_53 Start: 35123, Stop: 34428, Start Num: 50

Candidate Starts for FlyCatcher\_53:

(Start: 50 @35123 has 202 MA's), (72, 35081), (75, 35075), (119, 34919), (137, 34796), (160, 34748), (173, 34727), (188, 34700), (219, 34610), (223, 34595), (247, 34481),

Gene: ForGetIt\_41 Start: 31743, Stop: 31024, Start Num: 50

Candidate Starts for ForGetIt\_41:

(Start: 50 @31743 has 202 MA's), (77, 31689), (90, 31665), (103, 31641), (120, 31509), (147, 31365), (208, 31266), (219, 31203), (223, 31188), (228, 31152), (239, 31095),

Gene: ForesterFrank\_47 Start: 33733, Stop: 32999, Start Num: 45

Candidate Starts for ForesterFrank\_47:

(Start: 45 @33733 has 334 MA's), (74, 33688), (119, 33496), (130, 33406), (131, 33403), (175, 33301), (213, 33235), (219, 33187), (223, 33172), (225, 33166), (228, 33136), (241, 33073),

Gene: Frankenweenie\_9 Start: 4386, Stop: 3541, Start Num: 36

Candidate Starts for Frankenweenie\_9:

(1, 4770), (16, 4524), (25, 4440), (Start: 36 @4386 has 1 MA's), (Start: 56 @4323 has 8 MA's), (63, 4314), (70, 4302), (112, 4128), (124, 4023), (180, 3858), (193, 3837), (215, 3768), (221, 3744), (223, 3732), (244, 3624), (257, 3546),

Gene: Fred313\_49 Start: 32649, Stop: 31921, Start Num: 45

Candidate Starts for Fred313\_49:

(Start: 45 @32649 has 334 MA's), (70, 32613), (111, 32469), (118, 32427), (130, 32322), (131, 32319), (174, 32220), (219, 32103), (223, 32088), (225, 32082),

Gene: Fudan\_160 Start: 85740, Stop: 86450, Start Num: 50

Candidate Starts for Fudan\_160:

(Start: 50 @85740 has 202 MA's), (66, 85770), (74, 85791), (107, 85860), (110, 85902), (123, 86001), (124, 86010), (127, 86034), (134, 86088), (147, 86121), (217, 86262), (220, 86274), (224, 86289), (228, 86322), (243, 86391),

Gene: Funston\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Funston\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: GMA2\_44 Start: 44773, Stop: 44075, Start Num: 60

Candidate Starts for GMA2\_44:

(Start: 46 @44797 has 1 MA's), (60, 44773), (75, 44743), (95, 44701), (116, 44575), (124, 44512), (131, 44455), (132, 44440), (141, 44413), (169, 44368), (188, 44341), (198, 44329), (208, 44314), (226, 44221), (228, 44203), (234, 44164), (238, 44152), (246, 44128),

Gene: GMA3\_42 Start: 42519, Stop: 41794, Start Num: 57

Candidate Starts for GMA3\_42:

(Start: 57 @42519 has 10 MA's), (73, 42495), (91, 42453), (93, 42447), (107, 42402), (131, 42195), (211, 42054), (227, 41958), (234, 41913), (239, 41895), (246, 41877),

Gene: Gadost\_48 Start: 32785, Stop: 32066, Start Num: 50

Candidate Starts for Gadost\_48:

(Start: 50 @32785 has 202 MA's), (119, 32557), (125, 32509), (137, 32434), (145, 32413), (147, 32410), (206, 32314), (216, 32260), (219, 32248), (223, 32233), (225, 32227),

Gene: Gagieri\_17 Start: 8422, Stop: 9339, Start Num: 37

Candidate Starts for Gagieri\_17:

(21, 8347), (25, 8371), (30, 8395), (Start: 37 @8422 has 5 MA's), (58, 8485), (85, 8542), (144, 8866), (182, 8977), (200, 9034), (224, 9139), (234, 9211),

Gene: Gaia\_90 Start: 53810, Stop: 54535, Start Num: 50

Candidate Starts for Gaia\_90:

(Start: 50 @53810 has 202 MA's), (119, 54044), (125, 54092), (131, 54137), (132, 54152), (174, 54236), (219, 54353), (223, 54368), (228, 54404), (237, 54452), (240, 54464), (241, 54467), (245, 54476),

Gene: Gallia\_16 Start: 8763, Stop: 9548, Start Num: 40

Candidate Starts for Gallia\_16:

(40, 8763), (54, 8793), (100, 8889), (141, 9165), (166, 9204), (216, 9321), (227, 9378),

Gene: Garak\_53 Start: 32237, Stop: 31509, Start Num: 45

Candidate Starts for Garak\_53:

(Start: 45 @32237 has 334 MA's), (74, 32192), (119, 32000), (125, 31952), (130, 31910), (131, 31907), (155, 31841), (180, 31805), (210, 31754), (213, 31745), (219, 31697), (223, 31682), (241, 31583),

Gene: Garnacho\_156 Start: 85708, Stop: 86412, Start Num: 50

Candidate Starts for Garnacho\_156:

(Start: 50 @85708 has 202 MA's), (66, 85738), (74, 85759), (103, 85810), (110, 85870), (115, 85906), (119, 85939), (124, 85978), (127, 86002), (129, 86020), (132, 86050), (134, 86056), (141, 86077), (150, 86098), (161, 86116), (177, 86125), (204, 86161), (217, 86224), (235, 86326), (248, 86365),

Gene: GaugeLDP\_47 Start: 33391, Stop: 32687, Start Num: 45

Candidate Starts for GaugeLDP\_47:

(Start: 45 @33391 has 334 MA's), (114, 33226), (119, 33184), (125, 33136), (127, 33124), (130, 33094), (131, 33091), (203, 32947), (213, 32923), (217, 32884), (219, 32875), (223, 32860), (225, 32854),

Gene: Gemma\_51 Start: 33093, Stop: 32395, Start Num: 45

Candidate Starts for Gemma\_51:

(Start: 32 @33153 has 1 MA's), (Start: 45 @33093 has 334 MA's), (118, 32901), (130, 32796), (131, 32793), (149, 32742), (213, 32625), (219, 32577), (223, 32562),

Gene: George\_41 Start: 31961, Stop: 31248, Start Num: 50

Candidate Starts for George\_41:

(Start: 50 @31961 has 202 MA's), (74, 31913), (90, 31883), (130, 31640), (131, 31637), (155, 31571), (176, 31535), (209, 31484), (212, 31475), (219, 31427), (223, 31412), (228, 31376), (240, 31316),

Gene: Georgie2\_50 Start: 33075, Stop: 32350, Start Num: 45

Candidate Starts for Georgie2\_50:

(Start: 45 @33075 has 334 MA's), (119, 32841), (130, 32751), (131, 32748), (145, 32697), (152, 32682), (203, 32604), (213, 32580), (219, 32532), (223, 32517), (225, 32511), (240, 32421),

Gene: Ghoulboy\_43 Start: 32480, Stop: 31761, Start Num: 50

Candidate Starts for Ghoulboy\_43:

(Start: 50 @32480 has 202 MA's), (74, 32432), (118, 32264), (131, 32156), (216, 31952), (219, 31940), (223, 31925), (228, 31889), (239, 31832),

Gene: GiJojo\_153 Start: 86545, Stop: 87249, Start Num: 50

Candidate Starts for GiJojo\_153:

(Start: 50 @86545 has 202 MA's), (Start: 55 @86560 has 5 MA's), (103, 86647), (107, 86665), (110, 86707), (124, 86815), (127, 86839), (132, 86887), (134, 86893), (140, 86911), (157, 86938), (161, 86953), (217, 87061), (225, 87091), (228, 87121),

Gene: Gilberta\_50 Start: 32629, Stop: 31910, Start Num: 45

Candidate Starts for Gilberta\_50:

(Start: 45 @32629 has 334 MA's), (74, 32584), (119, 32392), (125, 32344), (130, 32302), (131, 32299), (155, 32233), (180, 32197), (210, 32146), (213, 32137), (219, 32089), (223, 32074), (240, 31978),

Gene: GingkoMaracino\_52 Start: 33092, Stop: 32385, Start Num: 45

Candidate Starts for GingkoMaracino\_52:

(Start: 45 @33092 has 334 MA's), (118, 32900), (130, 32795), (137, 32762), (219, 32567), (223, 32552),

Gene: Giroux\_51 Start: 33075, Stop: 32347, Start Num: 45

Candidate Starts for Giroux\_51:

(28, 33144), (Start: 45 @33075 has 334 MA's), (111, 32895), (118, 32853), (130, 32748), (131, 32745), (174, 32646), (203, 32601), (219, 32529), (223, 32514),

Gene: Gladiator\_49 Start: 31406, Stop: 30672, Start Num: 45

Candidate Starts for Gladiator\_49:

(Start: 45 @31406 has 334 MA's), (74, 31361), (92, 31325), (119, 31169), (130, 31079), (131, 31076), (145, 31025), (198, 30935), (203, 30932), (213, 30908), (219, 30860), (223, 30845), (225, 30839), (241, 30746),

Gene: Gmala1\_42 Start: 41527, Stop: 40772, Start Num: 53

Candidate Starts for Gmala1\_42:

(53, 41527), (75, 41491), (96, 41443), (149, 41146), (217, 41005), (225, 40975), (227, 40951), (234, 40906), (246, 40870), (248, 40864), (249, 40861),

Gene: Gollum\_38 Start: 29170, Stop: 28409, Start Num: 48

Candidate Starts for Gollum\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (54, 29155), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: Goose\_47 Start: 32213, Stop: 31482, Start Num: 50

Candidate Starts for Goose\_47:

(Start: 44 @32219 has 13 MA's), (Start: 50 @32213 has 202 MA's), (117, 31994), (119, 31973), (125, 31925), (130, 31883), (131, 31880), (174, 31784), (223, 31649), (240, 31553),

Gene: Goose1D\_43 Start: 29097, Stop: 28369, Start Num: 45

Candidate Starts for Goose1D\_43:

(Start: 45 @29097 has 334 MA's), (70, 29061), (111, 28917), (118, 28875), (130, 28770), (131, 28767), (174, 28668), (219, 28551), (223, 28536), (225, 28530),

Gene: Goose1X\_49 Start: 32239, Stop: 31511, Start Num: 45

Candidate Starts for Goose1X\_49:

(Start: 45 @32239 has 334 MA's), (70, 32203), (111, 32059), (118, 32017), (130, 31912), (131, 31909), (174, 31810), (219, 31693), (223, 31678), (225, 31672),

Gene: GordDuk1\_42 Start: 41470, Stop: 40643, Start Num: 53

Candidate Starts for GordDuk1\_42:

(53, 41470), (75, 41434), (82, 41422), (96, 41386), (217, 40948), (225, 40918), (227, 40894), (234, 40849), (246, 40813), (248, 40807), (249, 40804), (260, 40672),

Gene: GordTnk2\_42 Start: 41436, Stop: 40609, Start Num: 53

Candidate Starts for GordTnk2\_42:

(53, 41436), (75, 41400), (96, 41352), (149, 41055), (217, 40914), (225, 40884), (227, 40860), (234, 40815), (246, 40779), (248, 40773), (249, 40770), (260, 40638),

Gene: Gratitude\_49 Start: 33361, Stop: 32633, Start Num: 45

Candidate Starts for Gratitude\_49:

(Start: 45 @33361 has 334 MA's), (119, 33124), (125, 33076), (130, 33034), (131, 33031), (213, 32863), (219, 32815), (223, 32800), (225, 32794),

Gene: GreedyLawyer\_51 Start: 32085, Stop: 31348, Start Num: 45

Candidate Starts for GreedyLawyer\_51:

(Start: 45 @32085 has 334 MA's), (74, 32040), (119, 31848), (132, 31740), (147, 31698), (198, 31611), (219, 31536), (223, 31521), (225, 31515), (241, 31422),

Gene: Grif\_52 Start: 33281, Stop: 32574, Start Num: 45

Candidate Starts for Grif\_52:

(Start: 45 @33281 has 334 MA's), (118, 33089), (130, 32984), (137, 32951), (219, 32756), (223, 32741),

Gene: Groupthink\_53 Start: 33097, Stop: 32399, Start Num: 45

Candidate Starts for Groupthink\_53:

(Start: 32 @33157 has 1 MA's), (Start: 45 @33097 has 334 MA's), (118, 32905), (130, 32800), (131, 32797), (149, 32746), (213, 32629), (219, 32581), (223, 32566),

Gene: Grub\_52 Start: 33198, Stop: 32491, Start Num: 45

Candidate Starts for Grub\_52:

(Start: 45 @33198 has 334 MA's), (118, 33006), (130, 32901), (137, 32868), (219, 32673), (223, 32658),

Gene: Grum1\_52 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for Grum1\_52:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: Gruunaga\_51 Start: 32073, Stop: 31345, Start Num: 45

Candidate Starts for Gruunaga\_51:

(Start: 45 @32073 has 334 MA's), (74, 32028), (119, 31836), (125, 31788), (130, 31746), (131, 31743), (155, 31677), (180, 31641), (210, 31590), (213, 31581), (219, 31533), (223, 31518), (241, 31419),

Gene: GtownJaz\_52 Start: 33208, Stop: 32501, Start Num: 45

Candidate Starts for GtownJaz\_52:

(Start: 45 @33208 has 334 MA's), (118, 33016), (130, 32911), (137, 32878), (219, 32683), (223, 32668),

Gene: Gwennie\_52 Start: 33210, Stop: 32503, Start Num: 45

Candidate Starts for Gwennie\_52:

(Start: 45 @33210 has 334 MA's), (118, 33018), (130, 32913), (137, 32880), (219, 32685), (223, 32670),

Gene: HamSlice\_47 Start: 32779, Stop: 32060, Start Num: 50

Candidate Starts for HamSlice\_47:

(Start: 50 @32779 has 202 MA's), (119, 32551), (125, 32503), (137, 32428), (145, 32407), (147, 32404), (206, 32308), (216, 32254), (219, 32242), (223, 32227), (225, 32221),

Gene: Hammer\_52 Start: 31676, Stop: 30948, Start Num: 45

Candidate Starts for Hammer\_52:

(Start: 45 @31676 has 334 MA's), (74, 31631), (119, 31439), (125, 31391), (130, 31349), (131, 31346), (155, 31280), (180, 31244), (210, 31193), (213, 31184), (219, 31136), (223, 31121), (241, 31022),

Gene: Hanray\_47 Start: 33029, Stop: 32325, Start Num: 45

Candidate Starts for Hanray\_47:

(Start: 45 @33029 has 334 MA's), (74, 32984), (75, 32981), (77, 32978), (118, 32837), (119, 32822), (125, 32774), (130, 32732), (219, 32513), (223, 32498),

Gene: Happiness\_47 Start: 32786, Stop: 32067, Start Num: 50

Candidate Starts for Happiness\_47:

(Start: 50 @32786 has 202 MA's), (74, 32741), (119, 32558), (125, 32510), (137, 32435), (145, 32414), (147, 32411), (206, 32315), (216, 32261), (219, 32249), (223, 32234), (225, 32228),

Gene: Harlequin\_38 Start: 29175, Stop: 28414, Start Num: 48

Candidate Starts for Harlequin\_38:

(Start: 27 @29247 has 8 MA's), (Start: 48 @29175 has 36 MA's), (119, 28923), (125, 28875), (132, 28815), (139, 28794), (159, 28743), (191, 28683), (204, 28668), (223, 28581), (226, 28563), (237, 28497), (240, 28485),

Gene: HarryHoudini\_50 Start: 33544, Stop: 32816, Start Num: 45

Candidate Starts for HarryHoudini\_50:

(Start: 45 @33544 has 334 MA's), (119, 33307), (125, 33259), (130, 33217), (131, 33214), (213, 33046), (219, 32998), (223, 32983), (225, 32977),

Gene: HashRod\_53 Start: 33237, Stop: 32530, Start Num: 45

Candidate Starts for HashRod\_53:

(Start: 45 @33237 has 334 MA's), (118, 33045), (219, 32712), (223, 32697),

Gene: HaveUMetTed\_53 Start: 33079, Stop: 32381, Start Num: 45

Candidate Starts for HaveUMetTed\_53:

(Start: 32 @33139 has 1 MA's), (Start: 45 @33079 has 334 MA's), (118, 32887), (130, 32782), (131, 32779), (149, 32728), (213, 32611), (219, 32563), (223, 32548),

Gene: Heathen\_49 Start: 32705, Stop: 31977, Start Num: 45

Candidate Starts for Heathen\_49:

(Start: 45 @32705 has 334 MA's), (70, 32669), (111, 32525), (118, 32483), (130, 32378), (131, 32375), (174, 32276), (219, 32159), (223, 32144), (225, 32138),

Gene: Heffalump\_48 Start: 33827, Stop: 33102, Start Num: 45

Candidate Starts for Heffalump\_48:

(Start: 45 @33827 has 334 MA's), (119, 33593), (130, 33503), (131, 33500), (145, 33449), (152, 33434), (203, 33356), (219, 33284), (223, 33269), (225, 33263),

Gene: HelDan\_49 Start: 32957, Stop: 32229, Start Num: 45

Candidate Starts for HelDan\_49:

(Start: 45 @32957 has 334 MA's), (70, 32921), (111, 32777), (118, 32735), (130, 32630), (131, 32627), (174, 32528), (219, 32411), (223, 32396), (225, 32390),

Gene: Heliosoles\_51 Start: 33100, Stop: 32402, Start Num: 45

Candidate Starts for Heliosoles\_51:

(Start: 32 @33160 has 1 MA's), (Start: 45 @33100 has 334 MA's), (118, 32908), (130, 32803), (131, 32800), (149, 32749), (213, 32632), (219, 32584), (223, 32569),

Gene: Helmet\_53 Start: 32237, Stop: 31509, Start Num: 45

Candidate Starts for Helmet\_53:

(Start: 45 @32237 has 334 MA's), (74, 32192), (119, 32000), (125, 31952), (130, 31910), (131, 31907), (155, 31841), (180, 31805), (210, 31754), (213, 31745), (219, 31697), (223, 31682), (241, 31583),

Gene: Herbertwm\_49 Start: 32914, Stop: 32186, Start Num: 45

Candidate Starts for Herbertwm\_49:

(Start: 45 @32914 has 334 MA's), (119, 32677), (130, 32587), (145, 32533), (203, 32440), (219, 32368), (223, 32353), (225, 32347), (240, 32257),

Gene: Hercules11\_52 Start: 33215, Stop: 32508, Start Num: 45

Candidate Starts for Hercules11\_52:

(Start: 45 @33215 has 334 MA's), (118, 33023), (130, 32918), (137, 32885), (219, 32690), (223, 32675),

Gene: Hexamo\_51 Start: 31858, Stop: 31130, Start Num: 45

Candidate Starts for Hexamo\_51:

(Start: 45 @31858 has 334 MA's), (74, 31813), (92, 31777), (119, 31621), (125, 31573), (130, 31531), (131, 31528), (155, 31462), (180, 31426), (210, 31375), (213, 31366), (219, 31318), (223, 31303), (241, 31204),

Gene: HippoHollow\_49 Start: 34583, Stop: 33855, Start Num: 45

Candidate Starts for HippoHollow\_49:

(Start: 45 @34583 has 334 MA's), (74, 34538), (119, 34346), (130, 34256), (131, 34253), (185, 34133), (219, 34037), (223, 34022), (225, 34016),

Gene: Hiro\_38 Start: 29430, Stop: 28669, Start Num: 48

Candidate Starts for Hiro\_38:

(Start: 27 @29502 has 8 MA's), (Start: 48 @29430 has 36 MA's), (119, 29178), (125, 29130), (132, 29070), (139, 29049), (159, 28998), (191, 28938), (204, 28923), (223, 28836), (226, 28818), (237, 28752), (240, 28740),

Gene: Horex\_48 Start: 33048, Stop: 32344, Start Num: 45

Candidate Starts for Horex\_48:

(Start: 45 @33048 has 334 MA's), (74, 33003), (75, 33000), (77, 32997), (118, 32856), (119, 32841), (125, 32793), (130, 32751), (219, 32532), (223, 32517),

Gene: Holli\_47 Start: 32571, Stop: 31852, Start Num: 50

Candidate Starts for Holli\_47:

(Start: 50 @32571 has 202 MA's), (119, 32343), (125, 32295), (137, 32220), (145, 32199), (147, 32196), (206, 32100), (216, 32046), (219, 32034), (223, 32019), (225, 32013),

Gene: Hookmount\_48 Start: 33015, Stop: 32287, Start Num: 45

Candidate Starts for Hookmount\_48:

(Start: 33 @33069 has 7 MA's), (Start: 45 @33015 has 334 MA's), (70, 32979), (118, 32793), (130, 32688), (174, 32586), (219, 32469), (223, 32454), (240, 32358),

Gene: HortumSL17\_49 Start: 33024, Stop: 32320, Start Num: 45

Candidate Starts for HortumSL17\_49:

(Start: 45 @33024 has 334 MA's), (74, 32979), (75, 32976), (77, 32973), (118, 32832), (119, 32817), (125, 32769), (130, 32727), (219, 32508), (223, 32493),

Gene: Houdini22\_48 Start: 32785, Stop: 32066, Start Num: 50

Candidate Starts for Houdini22\_48:

(Start: 50 @32785 has 202 MA's), (119, 32557), (125, 32509), (137, 32434), (145, 32413), (147, 32410), (206, 32314), (216, 32260), (219, 32248), (223, 32233), (225, 32227),

Gene: HuhtaEnerson15\_42 Start: 31952, Stop: 31239, Start Num: 50

Candidate Starts for HuhtaEnerson15\_42:

(Start: 50 @31952 has 202 MA's), (74, 31904), (90, 31874), (125, 31673), (130, 31631), (131, 31628), (155, 31562), (176, 31526), (209, 31475), (212, 31466), (219, 31418), (223, 31403), (228, 31367), (240, 31307),

Gene: Hutc2\_49 Start: 32187, Stop: 31474, Start Num: 45

Candidate Starts for Hutc2\_49:

(Start: 45 @32187 has 334 MA's), (77, 32136), (125, 31914), (130, 31872), (195, 31731), (213, 31701), (216, 31665), (219, 31653), (223, 31638), (225, 31632), (240, 31542),

Gene: Huxley\_47 Start: 32842, Stop: 32123, Start Num: 50

Candidate Starts for Huxley\_47:

(Start: 50 @32842 has 202 MA's), (119, 32614), (125, 32566), (137, 32491), (145, 32470), (147, 32467), (206, 32371), (216, 32317), (219, 32305), (223, 32290), (225, 32284),

Gene: ICleared\_48 Start: 32810, Stop: 32091, Start Num: 50

Candidate Starts for ICleared\_48:

(Start: 50 @32810 has 202 MA's), (119, 32582), (125, 32534), (137, 32459), (145, 32438), (147, 32435), (206, 32339), (216, 32285), (219, 32273), (223, 32258), (225, 32252),

Gene: Ibantik\_22 Start: 10154, Stop: 9441, Start Num: 50

Candidate Starts for Ibantik\_22:

(Start: 50 @10154 has 202 MA's), (74, 10103), (85, 10079), (121, 9902), (130, 9827), (131, 9824), (132, 9809), (203, 9698), (208, 9686), (222, 9614), (223, 9608), (224, 9605),

Gene: Iceman\_48 Start: 33067, Stop: 32348, Start Num: 50

Candidate Starts for Iceman\_48:

(Start: 50 @33067 has 202 MA's), (119, 32839), (125, 32791), (145, 32695), (147, 32692), (206, 32596), (216, 32542), (219, 32530), (223, 32515), (225, 32509),

Gene: Idleandcovert\_50 Start: 33076, Stop: 32348, Start Num: 45

Candidate Starts for Idleandcovert\_50:

(28, 33145), (Start: 45 @33076 has 334 MA's), (111, 32896), (118, 32854), (130, 32749), (131, 32746), (174, 32647), (203, 32602), (219, 32530), (223, 32515),

Gene: Imbriano\_50 Start: 32100, Stop: 31366, Start Num: 45

Candidate Starts for Imbriano\_50:

(Start: 45 @32100 has 334 MA's), (74, 32055), (92, 32019), (119, 31863), (130, 31773), (131, 31770), (145, 31719), (198, 31629), (203, 31626), (213, 31602), (219, 31554), (223, 31539), (225, 31533), (241, 31440),

Gene: Indra\_54 Start: 32238, Stop: 31510, Start Num: 45

Candidate Starts for Indra\_54:

(Start: 45 @32238 has 334 MA's), (74, 32193), (119, 32001), (125, 31953), (130, 31911), (131, 31908), (155, 31842), (180, 31806), (210, 31755), (213, 31746), (219, 31698), (223, 31683), (241, 31584),

Gene: Insomnia\_50 Start: 32692, Stop: 31979, Start Num: 45

Candidate Starts for Insomnia\_50:

(Start: 45 @32692 has 334 MA's), (77, 32641), (125, 32419), (130, 32377), (195, 32236), (213, 32206), (216, 32170), (219, 32158), (223, 32143), (225, 32137), (240, 32047),

Gene: Iracema64\_49 Start: 33045, Stop: 32326, Start Num: 50

Candidate Starts for Iracema64\_49:

(Start: 50 @33045 has 202 MA's), (119, 32817), (125, 32769), (137, 32694), (145, 32673), (147, 32670), (206, 32574), (216, 32520), (219, 32508), (223, 32493), (225, 32487),

Gene: IronMan\_49 Start: 34206, Stop: 33481, Start Num: 45

Candidate Starts for IronMan\_49:

(Start: 45 @34206 has 334 MA's), (74, 34161), (119, 33972), (125, 33924), (130, 33882), (131, 33879), (135, 33855), (170, 33783), (175, 33777), (198, 33738), (203, 33735), (213, 33711), (219, 33663), (223, 33648), (225, 33642), (240, 33552),

Gene: Isca\_48 Start: 32511, Stop: 31777, Start Num: 45

Candidate Starts for Isca\_48:

(Start: 45 @32511 has 334 MA's), (118, 32283), (130, 32178), (131, 32175), (147, 32121), (174, 32076), (203, 32031), (219, 31959), (223, 31944), (240, 31848),

Gene: Isiphiwo\_49 Start: 31619, Stop: 30885, Start Num: 45

Candidate Starts for Isiphiwo\_49:

(Start: 45 @31619 has 334 MA's), (74, 31574), (92, 31538), (119, 31382), (130, 31292), (131, 31289), (145, 31238), (198, 31148), (203, 31145), (213, 31121), (219, 31073), (223, 31058), (225, 31052), (241, 30959),

Gene: Iwokeuplikedis\_52 Start: 33124, Stop: 32420, Start Num: 45

Candidate Starts for Iwokeuplikedis\_52:

(Start: 45 @33124 has 334 MA's), (119, 32917), (125, 32869), (127, 32857), (130, 32827), (131, 32824), (135, 32800), (137, 32794), (203, 32680), (219, 32608), (223, 32593), (225, 32587), (240, 32497),

Gene: JHC117\_52 Start: 33205, Stop: 32498, Start Num: 45

Candidate Starts for JHC117\_52:

(Start: 45 @33205 has 334 MA's), (118, 33013), (130, 32908), (137, 32875), (219, 32680), (223, 32665),

Gene: JSwag\_51 Start: 31511, Stop: 30810, Start Num: 49

Candidate Starts for JSwag\_51:

(Start: 49 @31511 has 24 MA's), (81, 31454), (119, 31295), (130, 31205), (131, 31202), (136, 31175), (167, 31118), (219, 30992), (223, 30977),

Gene: Jaan\_49 Start: 34372, Stop: 33647, Start Num: 45

Candidate Starts for Jaan\_49:

(Start: 45 @34372 has 334 MA's), (74, 34327), (119, 34138), (125, 34090), (130, 34048), (131, 34045), (150, 33982), (174, 33946), (175, 33943), (213, 33877), (216, 33841), (219, 33829), (223, 33814),

Gene: Jabiru\_42 Start: 31562, Stop: 30858, Start Num: 50

Candidate Starts for Jabiru\_42:

(Start: 50 @31562 has 202 MA's), (127, 31286), (130, 31256), (131, 31253), (141, 31211), (183, 31139), (219, 31037), (223, 31022), (228, 30986), (240, 30926),

Gene: Jabith\_50 Start: 32693, Stop: 31980, Start Num: 45

Candidate Starts for Jabith\_50:

(Start: 45 @32693 has 334 MA's), (77, 32642), (125, 32420), (130, 32378), (195, 32237), (213, 32207), (216, 32171), (219, 32159), (223, 32144), (225, 32138), (240, 32048),

Gene: Jaykayelowell\_46 Start: 32774, Stop: 32055, Start Num: 50

Candidate Starts for Jaykayelowell\_46:

(Start: 50 @32774 has 202 MA's), (119, 32546), (125, 32498), (137, 32423), (145, 32402), (147, 32399), (206, 32303), (216, 32249), (219, 32237), (223, 32222), (225, 32216),

Gene: JeanGrey\_19 Start: 9759, Stop: 10466, Start Num: 57

Candidate Starts for JeanGrey\_19:

(Start: 57 @9759 has 10 MA's), (90, 9822), (95, 9834), (129, 10065), (140, 10119), (208, 10236), (213, 10248), (219, 10296), (227, 10341), (238, 10398), (252, 10449),

Gene: Jeffabunny\_51 Start: 31894, Stop: 31166, Start Num: 45

Candidate Starts for Jeffabunny\_51:

(Start: 45 @31894 has 334 MA's), (74, 31849), (119, 31657), (125, 31609), (130, 31567), (131, 31564), (155, 31498), (180, 31462), (210, 31411), (213, 31402), (219, 31354), (223, 31339), (241, 31240),

Gene: JenCasNa\_53 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for JenCasNa\_53:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: JeppNRM\_53 Start: 33098, Stop: 32400, Start Num: 45

Candidate Starts for JeppNRM\_53:

(Start: 32 @33158 has 1 MA's), (Start: 45 @33098 has 334 MA's), (118, 32906), (130, 32801), (131, 32798), (149, 32747), (213, 32630), (219, 32582), (223, 32567),

Gene: Jerm\_51 Start: 33607, Stop: 32882, Start Num: 45

Candidate Starts for Jerm\_51:

(Start: 45 @33607 has 334 MA's), (119, 33373), (130, 33283), (131, 33280), (175, 33178), (213, 33112), (219, 33064), (223, 33049), (225, 33043),

Gene: Jester\_38 Start: 29106, Stop: 28345, Start Num: 48

Candidate Starts for Jester\_38:

(Start: 27 @29178 has 8 MA's), (Start: 48 @29106 has 36 MA's), (119, 28854), (125, 28806), (132, 28746), (139, 28725), (159, 28674), (191, 28614), (204, 28599), (223, 28512), (226, 28494), (237, 28428), (240, 28416),

Gene: JetBlade\_48 Start: 32775, Stop: 32056, Start Num: 50

Candidate Starts for JetBlade\_48:

(Start: 50 @32775 has 202 MA's), (119, 32547), (125, 32499), (137, 32424), (145, 32403), (147, 32400), (206, 32304), (216, 32250), (219, 32238), (223, 32223), (225, 32217),

Gene: JewelBug\_52 Start: 32255, Stop: 31518, Start Num: 45

Candidate Starts for JewelBug\_52:

(Start: 45 @32255 has 334 MA's), (74, 32210), (119, 32018), (132, 31910), (147, 31868), (198, 31781), (219, 31706), (223, 31691), (225, 31685), (241, 31592),

Gene: Jiawan\_47 Start: 33061, Stop: 32357, Start Num: 45

Candidate Starts for Jiawan\_47:

(Start: 45 @33061 has 334 MA's), (74, 33016), (75, 33013), (77, 33010), (118, 32869), (119, 32854), (125, 32806), (130, 32764), (219, 32545), (223, 32530),

Gene: Jobu08\_51 Start: 33038, Stop: 32331, Start Num: 45

Candidate Starts for Jobu08\_51:

(Start: 45 @33038 has 334 MA's), (118, 32846), (130, 32741), (219, 32513), (223, 32498),

Gene: JonJames\_113 Start: 65373, Stop: 66119, Start Num: 55

Candidate Starts for JonJames\_113:

(Start: 55 @65373 has 5 MA's), (59, 65379), (Start: 68 @65391 has 6 MA's), (72, 65400), (74, 65406), (89, 65439), (104, 65490), (109, 65523), (128, 65679), (132, 65724), (141, 65739), (163, 65778), (170, 65790), (208, 65850), (213, 65862), (225, 65931), (226, 65943), (227, 65955), (250, 66054), (256, 66105),

Gene: JoongJeon\_47 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for JoongJeon\_47:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Jordennis\_51 Start: 31769, Stop: 31035, Start Num: 45

Candidate Starts for Jordennis\_51:

(Start: 45 @31769 has 334 MA's), (74, 31724), (92, 31688), (119, 31532), (130, 31442), (131, 31439), (145, 31388), (198, 31298), (203, 31295), (213, 31271), (219, 31223), (223, 31208), (225, 31202), (241, 31109),

Gene: Joselito\_50 Start: 32638, Stop: 31919, Start Num: 45

Candidate Starts for Joselito\_50:

(Start: 45 @32638 has 334 MA's), (74, 32593), (119, 32401), (125, 32353), (130, 32311), (131, 32308), (155, 32242), (180, 32206), (210, 32155), (213, 32146), (219, 32098), (223, 32083), (240, 31987),

Gene: JoshKayV\_51 Start: 33688, Stop: 32963, Start Num: 45

Candidate Starts for JoshKayV\_51:

(Start: 45 @33688 has 334 MA's), (119, 33454), (130, 33364), (131, 33361), (145, 33310), (213, 33193), (219, 33145), (223, 33130), (225, 33124), (240, 33034),

Gene: Journey13\_43 Start: 31444, Stop: 30737, Start Num: 45

Candidate Starts for Journey13\_43:

(Start: 45 @31444 has 334 MA's), (125, 31186), (126, 31183), (127, 31174), (130, 31144), (131, 31141), (134, 31120), (187, 31018), (219, 30925), (223, 30910), (240, 30814),

Gene: Jovo\_41 Start: 31999, Stop: 31280, Start Num: 50

Candidate Starts for Jovo\_41:

(Start: 50 @31999 has 202 MA's), (77, 31945), (90, 31921), (103, 31897), (120, 31765), (147, 31621), (208, 31522), (219, 31459), (223, 31444), (228, 31408), (239, 31351),

Gene: Jsquared\_47 Start: 31938, Stop: 31240, Start Num: 45

Candidate Starts for Jsquared\_47:

(Start: 45 @31938 has 334 MA's), (86, 31872), (119, 31707), (125, 31659), (132, 31599), (147, 31560), (208, 31485), (219, 31422), (223, 31407),

Gene: Junimo\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Junimo\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: JustBecause\_6 Start: 3465, Stop: 2683, Start Num: 56

Candidate Starts for JustBecause\_6:

(Start: 33 @3534 has 7 MA's), (Start: 56 @3465 has 8 MA's), (63, 3456), (70, 3444), (73, 3435), (112, 3270), (115, 3237), (128, 3138), (132, 3090), (163, 3030), (170, 3018), (180, 3000), (193, 2979), (215, 2910), (221, 2886), (223, 2874), (244, 2766), (257, 2688),

Gene: KADY\_52 Start: 33237, Stop: 32530, Start Num: 45

Candidate Starts for KADY\_52:

(Start: 45 @33237 has 334 MA's), (118, 33045), (219, 32712), (223, 32697),

Gene: KFPoly\_47 Start: 32775, Stop: 32056, Start Num: 50

Candidate Starts for KFPoly\_47:

(Start: 50 @32775 has 202 MA's), (119, 32547), (125, 32499), (137, 32424), (145, 32403), (147, 32400), (206, 32304), (216, 32250), (219, 32238), (223, 32223), (225, 32217),

Gene: Kachowdy\_49 Start: 32957, Stop: 32229, Start Num: 45

Candidate Starts for Kachowdy\_49:

(Start: 45 @32957 has 334 MA's), (70, 32921), (111, 32777), (118, 32735), (130, 32630), (131, 32627), (174, 32528), (219, 32411), (223, 32396), (225, 32390),

Gene: Kalb97\_53 Start: 33096, Stop: 32398, Start Num: 45

Candidate Starts for Kalb97\_53:

(Start: 32 @33156 has 1 MA's), (Start: 45 @33096 has 334 MA's), (118, 32904), (130, 32799), (131, 32796), (149, 32745), (213, 32628), (219, 32580), (223, 32565),

Gene: Kalnoky\_53 Start: 33094, Stop: 32396, Start Num: 45

Candidate Starts for Kalnoky\_53:

(Start: 32 @33154 has 1 MA's), (Start: 45 @33094 has 334 MA's), (118, 32902), (130, 32797), (131, 32794), (149, 32743), (213, 32626), (219, 32578), (223, 32563),

Gene: Kalpine\_47 Start: 33330, Stop: 32599, Start Num: 45

Candidate Starts for Kalpine\_47:

(Start: 45 @33330 has 334 MA's), (74, 33285), (119, 33096), (125, 33048), (130, 33006), (131, 33003), (145, 32952), (213, 32835), (219, 32787), (223, 32772), (228, 32736), (240, 32676),

Gene: Kamy\_48 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Kamy\_48:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Katalie136\_47 Start: 32757, Stop: 32038, Start Num: 50

Candidate Starts for Katalie136\_47:

(Start: 50 @32757 has 202 MA's), (119, 32529), (125, 32481), (131, 32436), (145, 32385), (147, 32382), (148, 32379), (206, 32286), (213, 32268), (219, 32220), (223, 32205),

Gene: KatherineG\_53 Start: 32002, Stop: 31304, Start Num: 49

Candidate Starts for KatherineG\_53:

(Start: 49 @32002 has 24 MA's), (81, 31945), (119, 31786), (130, 31696), (131, 31693), (165, 31615), (219, 31486), (223, 31471),

Gene: Kazan\_52 Start: 32091, Stop: 31354, Start Num: 45

Candidate Starts for Kazan\_52:

(Start: 45 @32091 has 334 MA's), (74, 32046), (119, 31854), (132, 31746), (147, 31704), (198, 31617), (219, 31542), (223, 31527), (225, 31521), (241, 31428),

Gene: KekoraPapaka\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for KekoraPapaka\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Kela\_6 Start: 3456, Stop: 2674, Start Num: 56

Candidate Starts for Kela\_6:

(Start: 33 @3525 has 7 MA's), (Start: 56 @3456 has 8 MA's), (63, 3447), (70, 3435), (73, 3426), (112, 3261), (115, 3228), (124, 3156), (128, 3129), (132, 3081), (163, 3021), (170, 3009), (180, 2991), (193, 2970), (215, 2901), (221, 2877), (223, 2865), (244, 2757), (257, 2679),

Gene: Kerberos\_51 Start: 32822, Stop: 32115, Start Num: 45

Candidate Starts for Kerberos\_51:

(Start: 45 @32822 has 334 MA's), (118, 32627), (119, 32612), (130, 32522), (131, 32519), (141, 32477), (219, 32303), (223, 32288), (240, 32192),

Gene: Keziacharles14\_49 Start: 34058, Stop: 33357, Start Num: 45

Candidate Starts for Keziacharles14\_49:

(Start: 45 @34058 has 334 MA's), (118, 33863), (119, 33848), (130, 33758), (135, 33731), (150, 33692), (162, 33671), (164, 33668), (198, 33614), (219, 33539), (223, 33524), (225, 33518), (232, 33467),

Gene: Kimba\_49 Start: 32213, Stop: 31500, Start Num: 45

Candidate Starts for Kimba\_49:

(Start: 45 @32213 has 334 MA's), (77, 32162), (125, 31940), (130, 31898), (195, 31757), (213, 31727), (216, 31691), (219, 31679), (223, 31664), (225, 31658), (240, 31568),

Gene: Kimchi1738\_9 Start: 4740, Stop: 5513, Start Num: 48

Candidate Starts for Kimchi1738\_9:

(Start: 48 @4740 has 36 MA's), (51, 4752), (69, 4776), (76, 4794), (122, 5016), (132, 5100), (133, 5103), (179, 5184), (196, 5214), (217, 5280), (222, 5298), (223, 5304), (226, 5322), (227, 5334),

Gene: Kimona\_48 Start: 31365, Stop: 30673, Start Num: 45

Candidate Starts for Kimona\_48:

(Start: 45 @31365 has 334 MA's), (119, 31161), (130, 31071), (131, 31068), (223, 30837), (240, 30741),

Gene: KingCyrus\_51 Start: 34805, Stop: 34080, Start Num: 45

Candidate Starts for KingCyrus\_51:

(Start: 45 @34805 has 334 MA's), (130, 34481), (131, 34478), (170, 34382), (175, 34376), (213, 34310), (219, 34262), (223, 34247), (225, 34241),

Gene: Kingmustik0402\_48 Start: 32770, Stop: 32051, Start Num: 50

Candidate Starts for Kingmustik0402\_48:

(4, 33106), (6, 33094), (8, 33025), (11, 33013), (12, 33010), (13, 33001), (14, 32980), (Start: 50 @32770 has 202 MA's), (119, 32542), (125, 32494), (137, 32419), (145, 32398), (147, 32395), (206, 32299), (216, 32245), (219, 32233), (223, 32218), (225, 32212),

Gene: Kipper29\_51 Start: 32104, Stop: 31367, Start Num: 45

Candidate Starts for Kipper29\_51:

(Start: 45 @32104 has 334 MA's), (74, 32059), (119, 31867), (132, 31759), (147, 31717), (198, 31630), (219, 31555), (223, 31540), (225, 31534), (241, 31441),

Gene: KittenMittens\_44 Start: 31690, Stop: 30962, Start Num: 44

Candidate Starts for KittenMittens\_44:

(Start: 44 @31690 has 13 MA's), (Start: 50 @31684 has 202 MA's), (119, 31453), (125, 31405), (130, 31363), (131, 31360), (139, 31324), (150, 31297), (219, 31144), (223, 31129), (240, 31033),

Gene: Klodlith\_49 Start: 32723, Stop: 32016, Start Num: 45

Candidate Starts for Klodlith\_49:

(Start: 45 @32723 has 334 MA's), (118, 32528), (119, 32513), (120, 32510), (125, 32465), (135, 32396), (198, 32279), (206, 32270), (219, 32204), (223, 32189),

Gene: Koan\_46 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Koan\_46:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Koduck\_50 Start: 32263, Stop: 31532, Start Num: 45

Candidate Starts for Koduck\_50:

(Start: 45 @32263 has 334 MA's), (74, 32218), (119, 32023), (125, 31975), (129, 31945), (130, 31933), (131, 31930), (132, 31915), (174, 31831), (213, 31762), (219, 31714), (223, 31699), (240, 31603),

Gene: Koko\_52 Start: 32224, Stop: 31487, Start Num: 45

Candidate Starts for Koko\_52:

(Start: 45 @32224 has 334 MA's), (74, 32179), (119, 31987), (125, 31939), (131, 31894), (150, 31828), (219, 31675), (223, 31660), (241, 31561),

Gene: Koreni\_47 Start: 32462, Stop: 31743, Start Num: 50

Candidate Starts for Koreni\_47:

(Start: 50 @32462 has 202 MA's), (119, 32234), (125, 32186), (137, 32111), (145, 32090), (147, 32087), (206, 31991), (216, 31937), (219, 31925), (223, 31910), (225, 31904),

Gene: Kradal\_6 Start: 3780, Stop: 2992, Start Num: 56

Candidate Starts for Kradal\_6:

(35, 3849), (Start: 56 @3780 has 8 MA's), (63, 3771), (70, 3759), (119, 3513), (124, 3474), (132, 3399), (180, 3309), (193, 3288), (215, 3219), (221, 3195), (223, 3183), (237, 3099), (244, 3075), (257, 2997),

Gene: Kratak\_48 Start: 32944, Stop: 32225, Start Num: 50

Candidate Starts for Kratak\_48:

(Start: 50 @32944 has 202 MA's), (74, 32899), (119, 32716), (145, 32572), (147, 32569), (206, 32473), (219, 32407), (223, 32392),

Gene: Kremtemulon\_48 Start: 32732, Stop: 32013, Start Num: 50

Candidate Starts for Kremtemulon\_48:

(Start: 50 @32732 has 202 MA's), (119, 32504), (125, 32456), (137, 32381), (145, 32360), (147, 32357), (206, 32261), (216, 32207), (219, 32195), (223, 32180), (225, 32174),

Gene: Krishelle\_38 Start: 29533, Stop: 28772, Start Num: 48

Candidate Starts for Krishelle\_38:

(Start: 48 @29533 has 36 MA's), (119, 29281), (125, 29233), (132, 29173), (139, 29152), (159, 29101), (191, 29041), (204, 29026), (223, 28939), (226, 28921),

Gene: Kristoff\_47 Start: 32787, Stop: 32050, Start Num: 44

Candidate Starts for Kristoff\_47:

(Start: 44 @32787 has 13 MA's), (Start: 50 @32781 has 202 MA's), (119, 32541), (125, 32493), (130, 32451), (131, 32448), (158, 32379), (175, 32346), (206, 32298), (219, 32232), (223, 32217), (225, 32211), (228, 32181), (240, 32121),

Gene: Kudfre\_109 Start: 60671, Stop: 61387, Start Num: 57

Candidate Starts for Kudfre\_109:

(Start: 57 @60671 has 10 MA's), (91, 60734), (107, 60779), (108, 60782), (119, 60890), (124, 60929), (128, 60956), (129, 60971), (142, 61031), (202, 61112), (216, 61169), (227, 61226), (229, 61235), (234, 61271), (247, 61310), (250, 61325), (254, 61343),

Gene: Kumao\_7 Start: 2568, Stop: 1870, Start Num: 45

Candidate Starts for Kumao\_7:

(Start: 45 @2568 has 334 MA's), (115, 2391), (131, 2265), (132, 2250), (150, 2202), (164, 2178), (213, 2097), (219, 2049), (223, 2034), (228, 1998),

Gene: Kyee\_48 Start: 32779, Stop: 32060, Start Num: 50

Candidate Starts for Kyee\_48:

(Start: 50 @32779 has 202 MA's), (119, 32551), (125, 32503), (137, 32428), (145, 32407), (147, 32404), (206, 32308), (216, 32254), (219, 32242), (223, 32227), (225, 32221),

Gene: L5\_48 Start: 32338, Stop: 31607, Start Num: 45

Candidate Starts for L5\_48:

(Start: 45 @32338 has 334 MA's), (74, 32293), (119, 32098), (125, 32050), (129, 32020), (130, 32008), (131, 32005), (132, 31990), (174, 31906), (213, 31837), (219, 31789), (223, 31774), (240, 31678),

Gene: LBerry\_53 Start: 33210, Stop: 32503, Start Num: 45

Candidate Starts for LBerry\_53:

(Start: 45 @33210 has 334 MA's), (118, 33018), (130, 32913), (137, 32880), (219, 32685), (223, 32670),

Gene: LHTSCC\_50 Start: 33203, Stop: 32484, Start Num: 50

Candidate Starts for LHTSCC\_50:

(Start: 50 @33203 has 202 MA's), (74, 33158), (119, 32975), (125, 32927), (145, 32831), (147, 32828), (216, 32678), (219, 32666), (223, 32651), (225, 32645),

Gene: LadyBird\_54 Start: 33923, Stop: 33195, Start Num: 45

Candidate Starts for LadyBird\_54:

(Start: 45 @33923 has 334 MA's), (119, 33686), (130, 33596), (131, 33593), (213, 33425), (219, 33377), (223, 33362), (225, 33356), (240, 33266),

Gene: Lambert1\_48 Start: 33068, Stop: 32286, Start Num: 33

Candidate Starts for Lambert1\_48:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: Landor\_49 Start: 34284, Stop: 33559, Start Num: 45

Candidate Starts for Landor\_49:

(Start: 45 @34284 has 334 MA's), (74, 34239), (119, 34050), (125, 34002), (130, 33960), (131, 33957), (213, 33789), (216, 33753), (219, 33741), (223, 33726),

Gene: LappelDuVide\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for LappelDuVide\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: Larenn\_48 Start: 33223, Stop: 32495, Start Num: 45

Candidate Starts for Larenn\_48:

(Start: 45 @33223 has 334 MA's), (74, 33178), (119, 32986), (125, 32938), (130, 32896), (131, 32893), (213, 32725), (219, 32677), (223, 32662), (225, 32656), (228, 32626), (240, 32566),

Gene: LarryKay\_52 Start: 33239, Stop: 32532, Start Num: 45

Candidate Starts for LarryKay\_52:

(Start: 45 @33239 has 334 MA's), (118, 33047), (219, 32714), (223, 32699),

Gene: LastResort\_51 Start: 31563, Stop: 30865, Start Num: 49

Candidate Starts for LastResort\_51:

(Start: 49 @31563 has 24 MA's), (81, 31506), (119, 31347), (130, 31257), (131, 31254), (165, 31176), (219, 31047), (223, 31032),

Gene: Lemur\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Lemur\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: LeoAvram\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for LeoAvram\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Leogania\_49 Start: 34245, Stop: 33511, Start Num: 45

Candidate Starts for Leogania\_49:

(Start: 45 @34245 has 334 MA's), (119, 34008), (125, 33960), (130, 33918), (131, 33915), (213, 33747), (219, 33699), (223, 33684), (225, 33678), (228, 33648),

Gene: Lev2\_41 Start: 31631, Stop: 30912, Start Num: 50

Candidate Starts for Lev2\_41:

(Start: 50 @31631 has 202 MA's), (77, 31577), (90, 31553), (103, 31529), (120, 31397), (147, 31253), (208, 31154), (219, 31091), (223, 31076), (228, 31040), (239, 30983),

Gene: Leviathan\_51 Start: 33663, Stop: 32938, Start Num: 45

Candidate Starts for Leviathan\_51:

(Start: 45 @33663 has 334 MA's), (119, 33429), (127, 33369), (130, 33339), (131, 33336), (175, 33234), (213, 33168), (219, 33120), (223, 33105), (225, 33099),

Gene: LilTurb\_50 Start: 33496, Stop: 32771, Start Num: 45

Candidate Starts for LilTurb\_50:

(Start: 45 @33496 has 334 MA's), (119, 33262), (130, 33172), (131, 33169), (175, 33067), (213, 33001), (219, 32953), (223, 32938), (225, 32932),

Gene: Lilbooboo\_41 Start: 31881, Stop: 32585, Start Num: 50

Candidate Starts for Lilbooboo\_41:

(Start: 50 @31881 has 202 MA's), (119, 32106), (124, 32145), (141, 32244), (158, 32274), (187, 32310), (203, 32331), (223, 32418), (239, 32511), (240, 32514),

Gene: Lilbunny\_50 Start: 31868, Stop: 31140, Start Num: 45

Candidate Starts for Lilbunny\_50:

(Start: 45 @31868 has 334 MA's), (74, 31823), (119, 31631), (125, 31583), (130, 31541), (131, 31538), (155, 31472), (180, 31436), (210, 31385), (213, 31376), (219, 31328), (223, 31313), (241, 31214),

Gene: Lilith\_53 Start: 33199, Stop: 32492, Start Num: 45

Candidate Starts for Lilith\_53:

(Start: 45 @33199 has 334 MA's), (118, 33007), (130, 32902), (137, 32869), (219, 32674), (223, 32659),

Gene: Lilleskat\_47 Start: 32978, Stop: 32274, Start Num: 45

Candidate Starts for Lilleskat\_47:

(Start: 45 @32978 has 334 MA's), (74, 32933), (75, 32930), (77, 32927), (118, 32786), (119, 32771), (125, 32723), (130, 32681), (219, 32462), (223, 32447),

Gene: Lillie\_38 Start: 29242, Stop: 28409, Start Num: 27

Candidate Starts for Lillie\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (150, 28762), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: LionsBait\_51 Start: 34584, Stop: 33856, Start Num: 45

Candidate Starts for LionsBait\_51:

(Start: 45 @34584 has 334 MA's), (74, 34539), (119, 34347), (130, 34257), (131, 34254), (185, 34134), (219, 34038), (223, 34023), (225, 34017),

Gene: LittleB\_48 Start: 32782, Stop: 32063, Start Num: 50

Candidate Starts for LittleB\_48:

(Start: 50 @32782 has 202 MA's), (119, 32554), (125, 32506), (137, 32431), (145, 32410), (147, 32407), (206, 32311), (216, 32257), (219, 32245), (223, 32230), (225, 32224),

Gene: LittleCherry\_42 Start: 31971, Stop: 31249, Start Num: 50

Candidate Starts for LittleCherry\_42:

(23, 32082), (Start: 50 @31971 has 202 MA's), (74, 31923), (90, 31893), (127, 31680), (180, 31536), (219, 31428), (223, 31413), (228, 31377), (240, 31317),

Gene: LittleGuy\_48 Start: 32677, Stop: 31958, Start Num: 50

Candidate Starts for LittleGuy\_48:

(Start: 50 @32677 has 202 MA's), (119, 32449), (125, 32401), (137, 32326), (145, 32305), (147, 32302), (206, 32206), (216, 32152), (219, 32140), (223, 32125), (225, 32119),

Gene: LochMonster\_49 Start: 33017, Stop: 32298, Start Num: 50

Candidate Starts for LochMonster\_49:

(Start: 50 @33017 has 202 MA's), (119, 32789), (125, 32741), (137, 32666), (145, 32645), (147, 32642), (206, 32546), (216, 32492), (219, 32480), (223, 32465), (225, 32459),

Gene: LogiBear\_51 Start: 31506, Stop: 30805, Start Num: 65

Candidate Starts for LogiBear\_51:

(65, 31506), (89, 31461), (113, 31344), (119, 31296), (145, 31152), (151, 31140), (172, 31107), (198, 31062), (223, 30972), (228, 30936),

Gene: LoneWolf\_50 Start: 33013, Stop: 32309, Start Num: 45

Candidate Starts for LoneWolf\_50:

(Start: 45 @33013 has 334 MA's), (75, 32965), (77, 32962), (118, 32821), (119, 32806), (130, 32716), (219, 32497), (223, 32482),

Gene: Looper\_52 Start: 31540, Stop: 30842, Start Num: 49

Candidate Starts for Looper\_52:

(Start: 49 @31540 has 24 MA's), (81, 31483), (119, 31324), (130, 31234), (131, 31231), (165, 31153), (219, 31024), (223, 31009),

Gene: Lorenzo\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Lorenzo\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Loser\_51 Start: 34033, Stop: 33299, Start Num: 45

Candidate Starts for Loser\_51:

(Start: 45 @34033 has 334 MA's), (74, 33988), (119, 33796), (125, 33748), (130, 33706), (145, 33652), (175, 33601), (219, 33487), (223, 33472), (225, 33466), (228, 33436), (241, 33373),

Gene: Louie6\_51 Start: 33238, Stop: 32531, Start Num: 45

Candidate Starts for Louie6\_51:

(Start: 45 @33238 has 334 MA's), (118, 33046), (219, 32713), (223, 32698),

Gene: Lowa\_52 Start: 33198, Stop: 32491, Start Num: 45

Candidate Starts for Lowa\_52:

(Start: 45 @33198 has 334 MA's), (118, 33006), (130, 32901), (137, 32868), (219, 32673), (223, 32658),

Gene: Lucivia\_50 Start: 32687, Stop: 31968, Start Num: 45

Candidate Starts for Lucivia\_50:

(Start: 45 @32687 has 334 MA's), (74, 32642), (119, 32450), (125, 32402), (130, 32360), (131, 32357), (155, 32291), (180, 32255), (210, 32204), (213, 32195), (219, 32147), (223, 32132), (240, 32036),

Gene: LuckySocle\_162 Start: 85689, Stop: 86399, Start Num: 50

Candidate Starts for LuckySocle\_162:

(Start: 50 @85689 has 202 MA's), (66, 85719), (74, 85740), (107, 85809), (110, 85851), (123, 85950), (124, 85959), (127, 85983), (134, 86037), (147, 86070), (217, 86211), (220, 86223), (224, 86238), (228, 86271), (243, 86340),

Gene: Lucyedi\_50 Start: 32813, Stop: 32070, Start Num: 45

Candidate Starts for Lucyedi\_50:

(Start: 45 @32813 has 334 MA's), (130, 32486), (131, 32483), (141, 32441), (219, 32258), (223, 32243),

Gene: LugYA\_55 Start: 33207, Stop: 32500, Start Num: 45

Candidate Starts for LugYA\_55:

(Start: 45 @33207 has 334 MA's), (118, 33015), (130, 32910), (137, 32877), (219, 32682), (223, 32667),

Gene: Lunsford\_49 Start: 32775, Stop: 32056, Start Num: 50

Candidate Starts for Lunsford\_49:

(Start: 50 @32775 has 202 MA's), (119, 32547), (125, 32499), (137, 32424), (145, 32403), (147, 32400), (206, 32304), (216, 32250), (219, 32238), (223, 32223), (225, 32217),

Gene: MA5\_49 Start: 32411, Stop: 31680, Start Num: 45

Candidate Starts for MA5\_49:

(Start: 45 @32411 has 334 MA's), (70, 32375), (119, 32168), (130, 32078), (174, 31976), (219, 31859), (223, 31844), (228, 31808),

Gene: MK4\_49 Start: 32496, Stop: 31762, Start Num: 45

Candidate Starts for MK4\_49:

(Start: 45 @32496 has 334 MA's), (118, 32268), (130, 32163), (131, 32160), (147, 32106), (174, 32061), (203, 32016), (219, 31944), (223, 31929), (240, 31833),

Gene: MaCh\_50 Start: 32620, Stop: 31907, Start Num: 45

Candidate Starts for MaCh\_50:

(Start: 45 @32620 has 334 MA's), (77, 32569), (125, 32347), (127, 32335), (131, 32302), (132, 32287), (150, 32239), (164, 32215), (213, 32134), (219, 32086), (223, 32071), (228, 32035), (240, 31975),

Gene: Mabel\_49 Start: 32222, Stop: 31509, Start Num: 45

Candidate Starts for Mabel\_49:

(Start: 45 @32222 has 334 MA's), (77, 32171), (125, 31949), (130, 31907), (195, 31766), (213, 31736), (216, 31700), (217, 31697), (219, 31688), (223, 31673), (225, 31667), (240, 31577),

Gene: MacGully\_21 Start: 8379, Stop: 9269, Start Num: 42

Candidate Starts for MacGully\_21:

(3, 8028), (Start: 42 @8379 has 1 MA's), (132, 8775), (137, 8790), (144, 8814), (153, 8838), (224, 9078), (225, 9081),

Gene: MadMarie\_52 Start: 33208, Stop: 32501, Start Num: 45

Candidate Starts for MadMarie\_52:

(Start: 45 @33208 has 334 MA's), (118, 33016), (130, 32911), (137, 32878), (219, 32683), (223, 32668),

Gene: Mainiac\_52 Start: 33200, Stop: 32493, Start Num: 45

Candidate Starts for Mainiac\_52:

(Start: 45 @33200 has 334 MA's), (118, 33008), (130, 32903), (137, 32870), (219, 32675), (223, 32660),

Gene: MajorMajor\_48 Start: 32001, Stop: 31303, Start Num: 46

Candidate Starts for MajorMajor\_48:

(Start: 46 @32001 has 1 MA's), (119, 31770), (125, 31722), (127, 31710), (132, 31662), (147, 31623), (208, 31548), (219, 31485), (223, 31470),

Gene: Malec\_49 Start: 33787, Stop: 33059, Start Num: 45

Candidate Starts for Malec\_49:

(Start: 45 @33787 has 334 MA's), (74, 33742), (119, 33550), (125, 33502), (130, 33460), (131, 33457), (213, 33289), (219, 33241), (223, 33226), (225, 33220), (228, 33190), (240, 33130),

Gene: Malinsilva\_54 Start: 33198, Stop: 32491, Start Num: 45

Candidate Starts for Malinsilva\_54:

(Start: 45 @33198 has 334 MA's), (118, 33006), (130, 32901), (137, 32868), (219, 32673), (223, 32658),

Gene: Maminiaina\_48 Start: 32777, Stop: 32073, Start Num: 45

Candidate Starts for Maminiaina\_48:

(Start: 45 @32777 has 334 MA's), (75, 32729), (77, 32726), (118, 32585), (119, 32570), (125, 32522), (130, 32480), (219, 32261), (223, 32246), (224, 32243), (225, 32240),

Gene: Manu\_52 Start: 33097, Stop: 32399, Start Num: 45

Candidate Starts for Manu\_52:

(Start: 32 @33157 has 1 MA's), (Start: 45 @33097 has 334 MA's), (118, 32905), (130, 32800), (131, 32797), (149, 32746), (213, 32629), (219, 32581), (223, 32566),

Gene: MarQuardt\_52 Start: 33208, Stop: 32501, Start Num: 45

Candidate Starts for MarQuardt\_52:

(Start: 45 @33208 has 334 MA's), (118, 33016), (130, 32911), (137, 32878), (219, 32683), (223, 32668),

Gene: Marchesa\_49 Start: 32955, Stop: 32227, Start Num: 45

Candidate Starts for Marchesa\_49:

(Start: 45 @32955 has 334 MA's), (70, 32919), (111, 32775), (118, 32733), (130, 32628), (131, 32625), (174, 32526), (219, 32409), (223, 32394), (225, 32388),

Gene: Margo\_48 Start: 33094, Stop: 32312, Start Num: 33

Candidate Starts for Margo\_48:

(Start: 33 @33094 has 7 MA's), (Start: 45 @33040 has 334 MA's), (70, 33004), (118, 32818), (130, 32713), (174, 32611), (219, 32494), (223, 32479), (240, 32383),

Gene: Marie\_52 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for Marie\_52:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: Marius\_53 Start: 33094, Stop: 32396, Start Num: 45

Candidate Starts for Marius\_53:

(Start: 32 @33154 has 1 MA's), (Start: 45 @33094 has 334 MA's), (118, 32902), (130, 32797), (131, 32794), (149, 32743), (213, 32626), (219, 32578), (223, 32563),

Gene: MarysWell\_40 Start: 31825, Stop: 31112, Start Num: 50

Candidate Starts for MarysWell\_40:

(Start: 50 @31825 has 202 MA's), (74, 31777), (90, 31747), (118, 31609), (134, 31480), (137, 31471), (145, 31450), (204, 31363), (206, 31357), (208, 31354), (219, 31291), (223, 31276), (228, 31240), (239, 31183),

Gene: Maselop\_18 Start: 8899, Stop: 9792, Start Num: 37

Candidate Starts for Maselop\_18:

(Start: 37 @8899 has 5 MA's), (58, 8941), (72, 8968), (85, 8998), (119, 9172), (144, 9322), (205, 9502), (224, 9592), (230, 9631), (234, 9664),

Gene: Maverick\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Maverick\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Maxo\_49 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Maxo\_49:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Mayonnaise\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Mayonnaise\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Mazhar510\_48 Start: 32782, Stop: 32063, Start Num: 50

Candidate Starts for Mazhar510\_48:

(Start: 50 @32782 has 202 MA's), (119, 32554), (125, 32506), (137, 32431), (145, 32410), (147, 32407), (206, 32311), (216, 32257), (219, 32245), (223, 32230), (225, 32224),

Gene: Mbo2\_58 Start: 46625, Stop: 45849, Start Num: 42

Candidate Starts for Mbo2\_58:

(Start: 42 @46625 has 1 MA's), (Start: 68 @46577 has 6 MA's), (75, 46562), (99, 46499), (119, 46358), (124, 46319), (128, 46292), (132, 46247), (143, 46223), (163, 46187), (170, 46175), (201, 46130), (207, 46118), (219, 46058), (224, 46040), (233, 45974),

Gene: McFly\_51 Start: 32085, Stop: 31348, Start Num: 45

Candidate Starts for McFly\_51:

(Start: 45 @32085 has 334 MA's), (74, 32040), (119, 31848), (132, 31740), (147, 31698), (198, 31611), (219, 31536), (223, 31521), (225, 31515), (241, 31422),

Gene: Medusa\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for Medusa\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: MeeZee\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for MeeZee\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: MegTheThird\_48 Start: 32605, Stop: 31904, Start Num: 45

Candidate Starts for MegTheThird\_48:

(Start: 45 @32605 has 334 MA's), (118, 32410), (119, 32395), (125, 32347), (135, 32278), (150, 32239), (198, 32161), (219, 32086), (223, 32071), (225, 32065), (240, 31975),

Gene: Melvin\_50 Start: 32776, Stop: 32057, Start Num: 50

Candidate Starts for Melvin\_50:

(Start: 50 @32776 has 202 MA's), (119, 32548), (125, 32500), (137, 32425), (145, 32404), (147, 32401), (206, 32305), (216, 32251), (219, 32239), (223, 32224), (225, 32218),

Gene: Methuselah\_48 Start: 33233, Stop: 32526, Start Num: 45

Candidate Starts for Methuselah\_48:

(Start: 45 @33233 has 334 MA's), (118, 33041), (219, 32708), (223, 32693),

Gene: Micasa\_43 Start: 32101, Stop: 31379, Start Num: 50

Candidate Starts for Micasa\_43:

(Start: 50 @32101 has 202 MA's), (74, 32053), (90, 32023), (127, 31810), (131, 31777), (180, 31666), (219, 31558), (223, 31543), (228, 31507), (240, 31447),

Gene: Microwolf\_52 Start: 33207, Stop: 32500, Start Num: 45

Candidate Starts for Microwolf\_52:

(Start: 45 @33207 has 334 MA's), (118, 33015), (130, 32910), (137, 32877), (219, 32682), (223, 32667),

Gene: MiculUcigas\_49 Start: 33020, Stop: 32292, Start Num: 45

Candidate Starts for MiculUcigas\_49:

(Start: 45 @33020 has 334 MA's), (119, 32783), (125, 32735), (130, 32693), (131, 32690), (213, 32522), (219, 32474), (223, 32459), (225, 32453),

Gene: Midas2\_41 Start: 31816, Stop: 31097, Start Num: 50

Candidate Starts for Midas2\_41:

(Start: 50 @31816 has 202 MA's), (77, 31762), (90, 31738), (103, 31714), (120, 31582), (147, 31438), (208, 31339), (219, 31276), (223, 31261), (228, 31225), (239, 31168),

Gene: Miko\_46 Start: 33176, Stop: 32445, Start Num: 45

Candidate Starts for Miko\_46:

(Start: 45 @33176 has 334 MA's), (118, 32957), (125, 32894), (130, 32852), (131, 32849), (219, 32633), (223, 32618), (225, 32612), (240, 32522),

Gene: Milcery\_42 Start: 31929, Stop: 31216, Start Num: 50

Candidate Starts for Milcery\_42:

(Start: 50 @31929 has 202 MA's), (74, 31881), (90, 31851), (125, 31650), (130, 31608), (131, 31605), (155, 31539), (176, 31503), (209, 31452), (212, 31443), (219, 31395), (223, 31380), (228, 31344), (240, 31284),

Gene: Millski\_47 Start: 32782, Stop: 32063, Start Num: 50

Candidate Starts for Millski\_47:

(Start: 50 @32782 has 202 MA's), (119, 32554), (125, 32506), (137, 32431), (145, 32410), (147, 32407), (206, 32311), (216, 32257), (219, 32245), (223, 32230), (225, 32224),

Gene: MinecraftSteve\_53 Start: 31802, Stop: 31074, Start Num: 49

Candidate Starts for MinecraftSteve\_53:

(Start: 49 @31802 has 24 MA's), (94, 31712), (119, 31556), (130, 31466), (131, 31463), (165, 31385), (219, 31256), (223, 31241),

Gene: Minispark\_48 Start: 32542, Stop: 31841, Start Num: 45

Candidate Starts for Minispark\_48:

(Start: 45 @32542 has 334 MA's), (119, 32332), (125, 32284), (130, 32242), (135, 32215), (147, 32185), (150, 32176), (162, 32155), (198, 32098), (213, 32071), (219, 32023), (223, 32008),

Gene: Misomonster\_53 Start: 33236, Stop: 32529, Start Num: 45

Candidate Starts for Misomonster\_53:

(Start: 45 @33236 has 334 MA's), (118, 33044), (219, 32711), (223, 32696),

Gene: MissWhite\_48 Start: 31539, Stop: 30817, Start Num: 45

Candidate Starts for MissWhite\_48:

(Start: 45 @31539 has 334 MA's), (74, 31494), (119, 31308), (125, 31260), (130, 31218), (131, 31215), (155, 31149), (180, 31113), (210, 31062), (213, 31053), (219, 31005), (223, 30990), (240, 30894),

Gene: ModicumRichard\_72 Start: 47212, Stop: 47916, Start Num: 68

Candidate Starts for ModicumRichard\_72:

(Start: 68 @47212 has 6 MA's), (103, 47296), (119, 47425), (125, 47473), (127, 47485), (130, 47515), (141, 47560), (204, 47662), (219, 47734), (223, 47749), (228, 47785),

Gene: MoneyMay\_52 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for MoneyMay\_52:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: Montavir\_51 Start: 33207, Stop: 32500, Start Num: 45

Candidate Starts for Montavir\_51:

(Start: 45 @33207 has 334 MA's), (118, 33015), (130, 32910), (137, 32877), (219, 32682), (223, 32667),

Gene: Morgana\_76 Start: 48827, Stop: 49531, Start Num: 68

Candidate Starts for Morgana\_76:

(15, 48581), (17, 48608), (Start: 68 @48827 has 6 MA's), (119, 49040), (125, 49088), (130, 49130), (145, 49184), (171, 49229), (177, 49241), (198, 49274), (204, 49277), (219, 49349), (223, 49364), (240, 49460),

Gene: Morpher26\_47 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Morpher26\_47:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (131, 32457), (145, 32406), (147, 32403), (148, 32400), (206, 32307), (213, 32289), (219, 32241), (223, 32226),

Gene: Morrow\_49 Start: 32787, Stop: 32068, Start Num: 50

Candidate Starts for Morrow\_49:

(Start: 50 @32787 has 202 MA's), (119, 32559), (125, 32511), (137, 32436), (145, 32415), (147, 32412), (206, 32316), (216, 32262), (219, 32250), (223, 32235), (225, 32229),

Gene: MuchMore\_55 Start: 33198, Stop: 32491, Start Num: 45

Candidate Starts for MuchMore\_55:

(Start: 45 @33198 has 334 MA's), (118, 33006), (130, 32901), (137, 32868), (219, 32673), (223, 32658),

Gene: Mulciber\_49 Start: 32184, Stop: 31471, Start Num: 45

Candidate Starts for Mulciber\_49:

(Start: 45 @32184 has 334 MA's), (77, 32133), (125, 31911), (130, 31869), (195, 31728), (213, 31698), (216, 31662), (219, 31650), (223, 31635), (225, 31629), (240, 31539),

Gene: Munch\_50 Start: 32638, Stop: 31919, Start Num: 45

Candidate Starts for Munch\_50:

(Start: 45 @32638 has 334 MA's), (74, 32593), (119, 32401), (125, 32353), (130, 32311), (131, 32308), (155, 32242), (180, 32206), (210, 32155), (213, 32146), (219, 32098), (223, 32083), (240, 31987),

Gene: Mundrea\_47 Start: 32765, Stop: 32046, Start Num: 50

Candidate Starts for Mundrea\_47:

(31, 32828), (Start: 50 @32765 has 202 MA's), (119, 32537), (137, 32414), (147, 32390), (148, 32387), (206, 32294), (216, 32240), (219, 32228), (223, 32213),

Gene: Myxus\_49 Start: 33024, Stop: 32320, Start Num: 45

Candidate Starts for Myxus\_49:

(Start: 45 @33024 has 334 MA's), (74, 32979), (75, 32976), (77, 32973), (118, 32832), (119, 32817), (125, 32769), (130, 32727), (219, 32508), (223, 32493),

Gene: NaSiaTalie\_49 Start: 33117, Stop: 32389, Start Num: 45

Candidate Starts for NaSiaTalie\_49:

(Start: 45 @33117 has 334 MA's), (119, 32880), (125, 32832), (130, 32790), (131, 32787), (213, 32619), (219, 32571), (223, 32556), (225, 32550),

Gene: Naca\_43 Start: 32243, Stop: 31527, Start Num: 50

Candidate Starts for Naca\_43:

(Start: 50 @32243 has 202 MA's), (77, 32189), (90, 32165), (91, 32162), (118, 32030), (125, 31967), (130, 31925), (131, 31922), (138, 31889), (174, 31823), (213, 31754), (219, 31706), (223, 31691),

Gene: Naiad\_38 Start: 29183, Stop: 28422, Start Num: 48

Candidate Starts for Naiad\_38:

(Start: 27 @29255 has 8 MA's), (Start: 48 @29183 has 36 MA's), (119, 28931), (125, 28883), (132, 28823), (139, 28802), (150, 28775), (159, 28751), (191, 28691), (204, 28676), (223, 28589), (226, 28571), (237, 28505), (240, 28493),

Gene: Naji\_51 Start: 32823, Stop: 32116, Start Num: 45

Candidate Starts for Naji\_51:

(Start: 45 @32823 has 334 MA's), (118, 32628), (119, 32613), (130, 32523), (131, 32520), (141, 32478), (219, 32304), (223, 32289), (240, 32193),

Gene: Nancinator\_38 Start: 29171, Stop: 28410, Start Num: 48

Candidate Starts for Nancinator\_38:

(Start: 27 @29243 has 8 MA's), (Start: 48 @29171 has 36 MA's), (119, 28919), (125, 28871), (132, 28811), (139, 28790), (159, 28739), (191, 28679), (204, 28664), (223, 28577), (226, 28559), (237, 28493), (240, 28481),

Gene: Natosaleda\_38 Start: 29170, Stop: 28409, Start Num: 48

Candidate Starts for Natosaleda\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: Nebkiss\_89 Start: 52422, Stop: 53147, Start Num: 50

Candidate Starts for Nebkiss\_89:

(Start: 50 @52422 has 202 MA's), (119, 52656), (125, 52704), (131, 52749), (132, 52764), (174, 52848), (219, 52965), (223, 52980), (228, 53016), (237, 53064), (240, 53076), (241, 53079), (245, 53088),

Gene: Nebs\_49 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Nebs\_49:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Nebulosus\_51 Start: 31559, Stop: 30861, Start Num: 49

Candidate Starts for Nebulosus\_51:

(Start: 49 @31559 has 24 MA's), (81, 31502), (119, 31343), (130, 31253), (131, 31250), (165, 31172), (219, 31043), (223, 31028),

Gene: Nedarya\_47 Start: 31008, Stop: 30265, Start Num: 49

Candidate Starts for Nedarya\_47:

(Start: 49 @31008 has 24 MA's), (80, 30945), (119, 30762), (130, 30672), (131, 30669), (145, 30618), (219, 30453), (223, 30438),

Gene: Neeharika16\_50 Start: 31545, Stop: 30808, Start Num: 45

Candidate Starts for Neeharika16\_50:

(Start: 45 @31545 has 334 MA's), (74, 31500), (119, 31308), (125, 31260), (127, 31248), (130, 31218), (131, 31215), (164, 31125), (219, 30996), (223, 30981), (225, 30975), (241, 30882),

Gene: Nemo27\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for Nemo27\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: Newrala\_51 Start: 32093, Stop: 31359, Start Num: 45

Candidate Starts for Newrala\_51:

(Start: 45 @32093 has 334 MA's), (74, 32048), (92, 32012), (119, 31856), (130, 31766), (131, 31763), (145, 31712), (198, 31622), (203, 31619), (213, 31595), (219, 31547), (223, 31532), (225, 31526), (241, 31433),

Gene: NicoleTera\_48 Start: 33381, Stop: 32650, Start Num: 45

Candidate Starts for NicoleTera\_48:

(Start: 45 @33381 has 334 MA's), (89, 33309), (118, 33162), (119, 33147), (125, 33099), (130, 33057), (131, 33054), (213, 32886), (219, 32838), (223, 32823), (225, 32817), (228, 32787),

Gene: Nirvana\_8 Start: 4133, Stop: 3351, Start Num: 56

Candidate Starts for Nirvana\_8:

(Start: 56 @4133 has 8 MA's), (63, 4124), (70, 4112), (112, 3938), (124, 3833), (132, 3758), (170, 3686), (180, 3668), (193, 3647), (211, 3614), (215, 3578), (221, 3554), (223, 3542), (244, 3434), (257, 3356),

Gene: Noella\_48 Start: 33015, Stop: 32287, Start Num: 45

Candidate Starts for Noella\_48:

(Start: 33 @33069 has 7 MA's), (Start: 45 @33015 has 334 MA's), (70, 32979), (118, 32793), (130, 32688), (174, 32586), (219, 32469), (223, 32454), (240, 32358),

Gene: Noelle\_48 Start: 33067, Stop: 32348, Start Num: 50

Candidate Starts for Noelle\_48:

(Start: 50 @33067 has 202 MA's), (119, 32839), (125, 32791), (131, 32746), (145, 32695), (147, 32692), (148, 32689), (206, 32596), (216, 32542), (219, 32530), (223, 32515),

Gene: Norbert\_47 Start: 33014, Stop: 32286, Start Num: 45

Candidate Starts for Norbert\_47:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: NorthStar\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for NorthStar\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Northrop\_48 Start: 32777, Stop: 32058, Start Num: 50

Candidate Starts for Northrop\_48:

(Start: 50 @32777 has 202 MA's), (119, 32549), (125, 32501), (137, 32426), (145, 32405), (147, 32402), (206, 32306), (216, 32252), (219, 32240), (223, 32225), (225, 32219),

Gene: NotAPhaseMom\_48 Start: 32785, Stop: 32066, Start Num: 50

Candidate Starts for NotAPhaseMom\_48:

(Start: 50 @32785 has 202 MA's), (119, 32557), (125, 32509), (137, 32434), (145, 32413), (147, 32410), (206, 32314), (216, 32260), (219, 32248), (223, 32233), (225, 32227),

Gene: NothingSpecial\_47 Start: 33635, Stop: 32904, Start Num: 45

Candidate Starts for NothingSpecial\_47:

(Start: 45 @33635 has 334 MA's), (66, 33605), (119, 33398), (125, 33350), (130, 33308), (131, 33305), (134, 33284), (170, 33209), (213, 33134), (216, 33098), (219, 33086), (223, 33071), (225, 33065), (240, 32975),

Gene: Nyxis\_48 Start: 32671, Stop: 31952, Start Num: 50

Candidate Starts for Nyxis\_48:

(Start: 50 @32671 has 202 MA's), (119, 32443), (125, 32395), (137, 32320), (145, 32299), (147, 32296), (206, 32200), (216, 32146), (219, 32134), (223, 32119), (225, 32113),

Gene: OKCentral2016\_46 Start: 32116, Stop: 31385, Start Num: 50

Candidate Starts for OKCentral2016\_46:

(Start: 44 @32122 has 13 MA's), (Start: 50 @32116 has 202 MA's), (117, 31897), (119, 31876), (125, 31828), (130, 31786), (131, 31783), (174, 31687), (223, 31552), (240, 31456),

Gene: OKaNui\_48 Start: 32831, Stop: 32112, Start Num: 50

Candidate Starts for OKaNui\_48:

(Start: 50 @32831 has 202 MA's), (119, 32603), (125, 32555), (137, 32480), (145, 32459), (147, 32456), (206, 32360), (216, 32306), (219, 32294), (223, 32279), (225, 32273),

Gene: ObLaDi\_72 Start: 47184, Stop: 47888, Start Num: 68

Candidate Starts for ObLaDi\_72:

(Start: 68 @47184 has 6 MA's), (103, 47268), (119, 47397), (125, 47445), (127, 47457), (130, 47487), (141, 47532), (204, 47634), (219, 47706), (223, 47721), (228, 47757),

Gene: Obama12\_49 Start: 33205, Stop: 32486, Start Num: 50

Candidate Starts for Obama12\_49:

(Start: 50 @33205 has 202 MA's), (74, 33160), (119, 32977), (125, 32929), (145, 32833), (147, 32830), (216, 32680), (219, 32668), (223, 32653), (225, 32647),

Gene: Octobien14\_107 Start: 59811, Stop: 60539, Start Num: 57

Candidate Starts for Octobien14\_107:

(Start: 57 @59811 has 10 MA's), (91, 59874), (107, 59919), (108, 59922), (119, 60030), (121, 60048), (124, 60069), (128, 60096), (129, 60111), (142, 60171), (225, 60354), (227, 60378), (229, 60387), (234, 60423), (247, 60462), (250, 60477), (254, 60495),

Gene: Odin\_48 Start: 31799, Stop: 31077, Start Num: 45

Candidate Starts for Odin\_48:

(Start: 45 @31799 has 334 MA's), (90, 31724), (91, 31721), (126, 31523), (130, 31484), (131, 31481), (141, 31439), (154, 31418), (178, 31373), (219, 31265), (223, 31250), (224, 31247), (225, 31244), (240, 31154),

Gene: Ohfah\_49 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Ohfah\_49:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: OlanP\_51 Start: 33267, Stop: 32569, Start Num: 45

Candidate Starts for OlanP\_51:

(Start: 32 @33327 has 1 MA's), (Start: 45 @33267 has 334 MA's), (118, 33075), (130, 32970), (131, 32967), (149, 32916), (170, 32871), (213, 32799), (219, 32751), (223, 32736),

Gene: Ollie\_52 Start: 33077, Stop: 32370, Start Num: 45

Candidate Starts for Ollie\_52:

(Start: 45 @33077 has 334 MA's), (118, 32885), (130, 32780), (137, 32747), (219, 32552), (223, 32537),

Gene: OneUp\_83 Start: 54980, Stop: 55717, Start Num: 57

Candidate Starts for OneUp\_83:

(Start: 57 @54980 has 10 MA's), (88, 55037), (104, 55088), (119, 55211), (127, 55274), (128, 55277), (143, 55346), (170, 55388), (227, 55553),

Gene: Onglai\_47 Start: 31365, Stop: 30661, Start Num: 45

Candidate Starts for Onglai\_47:

(Start: 45 @31365 has 334 MA's), (74, 31320), (75, 31317), (77, 31314), (118, 31173), (119, 31158), (125, 31110), (130, 31068), (219, 30849), (223, 30834),

Gene: Oofda\_51 Start: 31445, Stop: 30717, Start Num: 49

Candidate Starts for Oofda\_51:

(Start: 49 @31445 has 24 MA's), (94, 31355), (119, 31199), (130, 31109), (165, 31028), (219, 30899), (223, 30884), (240, 30788),

Gene: Orange\_49 Start: 32187, Stop: 31468, Start Num: 45

Candidate Starts for Orange\_49:

(Start: 45 @32187 has 334 MA's), (74, 32142), (119, 31950), (125, 31902), (130, 31860), (131, 31857), (155, 31791), (180, 31755), (210, 31704), (213, 31695), (219, 31647), (223, 31632), (225, 31626), (240, 31536),

Gene: P28Green\_53 Start: 33209, Stop: 32502, Start Num: 45

Candidate Starts for P28Green\_53:

(Start: 45 @33209 has 334 MA's), (118, 33017), (130, 32912), (137, 32879), (219, 32684), (223, 32669),

Gene: PGHhamlin\_54 Start: 33198, Stop: 32491, Start Num: 45

Candidate Starts for PGHhamlin\_54:

(Start: 45 @33198 has 334 MA's), (118, 33006), (130, 32901), (137, 32868), (219, 32673), (223, 32658),

Gene: PackMan\_48 Start: 33024, Stop: 32320, Start Num: 45

Candidate Starts for PackMan\_48:

(Start: 45 @33024 has 334 MA's), (74, 32979), (75, 32976), (77, 32973), (118, 32832), (119, 32817), (125, 32769), (130, 32727), (219, 32508), (223, 32493),

Gene: PainterBoy\_50 Start: 32749, Stop: 32006, Start Num: 45

Candidate Starts for PainterBoy\_50:

(Start: 45 @32749 has 334 MA's), (130, 32422), (131, 32419), (141, 32377), (219, 32194), (223, 32179),

Gene: Palestino\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Palestino\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Panamaxus\_46 Start: 33014, Stop: 32286, Start Num: 45

Candidate Starts for Panamaxus\_46:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: Park1214\_166 Start: 87104, Stop: 87808, Start Num: 50

Candidate Starts for Park1214\_166:

(Start: 50 @87104 has 202 MA's), (66, 87134), (74, 87155), (110, 87266), (114, 87293), (120, 87338), (124, 87374), (127, 87398), (132, 87446), (134, 87452), (177, 87521), (190, 87542), (217, 87620), (224, 87647), (228, 87680), (232, 87701),

Gene: Partridge\_38 Start: 29332, Stop: 28571, Start Num: 48

Candidate Starts for Partridge\_38:

(Start: 27 @29404 has 8 MA's), (Start: 48 @29332 has 36 MA's), (119, 29080), (125, 29032), (132, 28972), (139, 28951), (159, 28900), (191, 28840), (204, 28825), (223, 28738), (226, 28720),

Gene: Pawn\_52 Start: 33101, Stop: 32403, Start Num: 45

Candidate Starts for Pawn\_52:

(Start: 32 @33161 has 1 MA's), (Start: 45 @33101 has 334 MA's), (118, 32909), (130, 32804), (131, 32801), (149, 32750), (213, 32633), (219, 32585), (223, 32570),

Gene: PeaceMeal1\_45 Start: 31691, Stop: 30963, Start Num: 44

Candidate Starts for PeaceMeal1\_45:

(Start: 44 @31691 has 13 MA's), (Start: 50 @31685 has 202 MA's), (119, 31454), (125, 31406), (130, 31364), (131, 31361), (139, 31325), (150, 31298), (219, 31145), (223, 31130), (240, 31034),

Gene: Peaches\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for Peaches\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: Pembroke\_52 Start: 33207, Stop: 32500, Start Num: 45

Candidate Starts for Pembroke\_52:

(Start: 45 @33207 has 334 MA's), (118, 33015), (130, 32910), (137, 32877), (219, 32682), (223, 32667),

Gene: Penny1\_53 Start: 33210, Stop: 32503, Start Num: 45

Candidate Starts for Penny1\_53:

(Start: 45 @33210 has 334 MA's), (118, 33018), (130, 32913), (137, 32880), (219, 32685), (223, 32670),

Gene: Perplexer\_47 Start: 32754, Stop: 32035, Start Num: 50

Candidate Starts for Perplexer\_47:

(Start: 50 @32754 has 202 MA's), (119, 32526), (125, 32478), (131, 32433), (145, 32382), (147, 32379), (148, 32376), (206, 32283), (213, 32265), (219, 32217), (223, 32202),

Gene: PeterPeter\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for PeterPeter\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Petersenfast\_49 Start: 32189, Stop: 31476, Start Num: 45

Candidate Starts for Petersenfast\_49:

(Start: 45 @32189 has 334 MA's), (77, 32138), (125, 31916), (130, 31874), (195, 31733), (213, 31703), (216, 31667), (219, 31655), (223, 31640), (225, 31634), (240, 31544),

Gene: PeteyPab\_9 Start: 4717, Stop: 5490, Start Num: 48

Candidate Starts for PeteyPab\_9:

(Start: 48 @4717 has 36 MA's), (51, 4729), (69, 4753), (76, 4771), (122, 4993), (132, 5077), (133, 5080), (179, 5161), (217, 5257), (222, 5275), (223, 5281), (226, 5299), (227, 5311), (245, 5389), (249, 5401),

Gene: PetiteSangsue\_47 Start: 32757, Stop: 32038, Start Num: 50

Candidate Starts for PetiteSangsue\_47:

(Start: 50 @32757 has 202 MA's), (119, 32529), (125, 32481), (131, 32436), (145, 32385), (147, 32382), (148, 32379), (206, 32286), (213, 32268), (219, 32220), (223, 32205),

Gene: PetterN\_45 Start: 31663, Stop: 30968, Start Num: 50

Candidate Starts for PetterN\_45:

(Start: 50 @31663 has 202 MA's), (77, 31609), (90, 31585), (91, 31582), (118, 31450), (125, 31387), (137, 31312), (166, 31258), (219, 31147), (223, 31132),

Gene: Ph8s\_51 Start: 32414, Stop: 31710, Start Num: 45

Candidate Starts for Ph8s\_51:

(Start: 45 @32414 has 334 MA's), (130, 32117), (131, 32114), (137, 32084), (141, 32072), (154, 32051), (170, 32018), (174, 32015), (178, 32006), (219, 31898), (223, 31883), (228, 31847), (240, 31787),

Gene: Phacado\_48 Start: 32780, Stop: 32061, Start Num: 50

Candidate Starts for Phacado\_48:

(Start: 50 @32780 has 202 MA's), (119, 32552), (125, 32504), (137, 32429), (145, 32408), (147, 32405), (206, 32309), (216, 32255), (219, 32243), (223, 32228), (225, 32222),

Gene: Phaded\_50 Start: 34266, Stop: 33541, Start Num: 45

Candidate Starts for Phaded\_50:

(Start: 45 @34266 has 334 MA's), (74, 34221), (119, 34032), (125, 33984), (130, 33942), (131, 33939), (150, 33876), (174, 33840), (175, 33837), (213, 33771), (216, 33735), (219, 33723), (223, 33708), (240, 33612),

Gene: Phaeder\_49 Start: 33024, Stop: 32320, Start Num: 45

Candidate Starts for Phaeder\_49:

(Start: 45 @33024 has 334 MA's), (74, 32979), (75, 32976), (77, 32973), (118, 32832), (119, 32817), (125, 32769), (130, 32727), (219, 32508), (223, 32493),

Gene: PhailMary\_37 Start: 29564, Stop: 28731, Start Num: 27

Candidate Starts for PhailMary\_37:

(Start: 27 @29564 has 8 MA's), (Start: 48 @29492 has 36 MA's), (125, 29192), (132, 29132), (139, 29111), (159, 29060), (191, 29000), (204, 28985), (223, 28898), (226, 28880), (237, 28814), (240, 28802),

Gene: Phantastic\_50 Start: 32700, Stop: 31966, Start Num: 45

Candidate Starts for Phantastic\_50:

(Start: 45 @32700 has 334 MA's), (118, 32472), (130, 32367), (131, 32364), (147, 32310), (174, 32265), (219, 32148), (223, 32133), (240, 32037),

Gene: Pharaoh\_44 Start: 32794, Stop: 32087, Start Num: 45

Candidate Starts for Pharaoh\_44:

(Start: 45 @32794 has 334 MA's), (118, 32599), (119, 32584), (149, 32440), (150, 32437), (219, 32275), (223, 32260), (225, 32254), (228, 32224),

Gene: Phelipe\_49 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Phelipe\_49:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Phighter1804\_48 Start: 32847, Stop: 32128, Start Num: 50

Candidate Starts for Phighter1804\_48:

(Start: 50 @32847 has 202 MA's), (74, 32802), (119, 32619), (145, 32475), (147, 32472), (206, 32376), (219, 32310), (223, 32295),

Gene: PhishRPhriends\_50 Start: 32275, Stop: 31577, Start Num: 45

Candidate Starts for PhishRPhriends\_50:

(Start: 32 @32335 has 1 MA's), (Start: 45 @32275 has 334 MA's), (118, 32083), (130, 31978), (131, 31975), (149, 31924), (213, 31807), (219, 31759), (223, 31744),

Gene: Phlei\_38 Start: 32546, Stop: 31824, Start Num: 45

Candidate Starts for Phlei\_38:

(Start: 45 @32546 has 334 MA's), (74, 32501), (102, 32447), (119, 32315), (125, 32267), (131, 32222), (178, 32114), (216, 32018), (219, 32006), (223, 31991), (224, 31988), (225, 31985), (228, 31955), (240, 31895),

Gene: Phlorence\_40 Start: 31500, Stop: 30787, Start Num: 50

Candidate Starts for Phlorence\_40:

(Start: 50 @31500 has 202 MA's), (74, 31452), (90, 31422), (118, 31284), (127, 31209), (130, 31179), (131, 31176), (155, 31110), (176, 31074), (209, 31023), (212, 31014), (219, 30966), (223, 30951), (228, 30915), (239, 30858),

Gene: Phoebe\_53 Start: 33199, Stop: 32492, Start Num: 45

Candidate Starts for Phoebe\_53:

(Start: 45 @33199 has 334 MA's), (118, 33007), (130, 32902), (137, 32869), (219, 32674), (223, 32659),

Gene: Phonnegut\_49 Start: 33073, Stop: 32369, Start Num: 45

Candidate Starts for Phonnegut\_49:

(Start: 45 @33073 has 334 MA's), (74, 33028), (75, 33025), (77, 33022), (118, 32881), (119, 32866), (125, 32818), (130, 32776), (219, 32557), (223, 32542),

Gene: Phontbonne\_48 Start: 32672, Stop: 31953, Start Num: 50

Candidate Starts for Phontbonne\_48:

(Start: 50 @32672 has 202 MA's), (119, 32444), (125, 32396), (137, 32321), (145, 32300), (147, 32297), (206, 32201), (216, 32147), (219, 32135), (223, 32120), (225, 32114),

Gene: Phoxy\_52 Start: 33234, Stop: 32527, Start Num: 45

Candidate Starts for Phoxy\_52:

(Start: 45 @33234 has 334 MA's), (118, 33042), (219, 32709), (223, 32694),

Gene: Phrankenstein\_38 Start: 29116, Stop: 28355, Start Num: 48

Candidate Starts for Phrankenstein\_38:

(Start: 27 @29188 has 8 MA's), (Start: 48 @29116 has 36 MA's), (54, 29101), (119, 28864), (125, 28816), (132, 28756), (139, 28735), (159, 28684), (191, 28624), (204, 28609), (223, 28522), (226, 28504), (237, 28438), (240, 28426),

Gene: Phranny\_53 Start: 33083, Stop: 32385, Start Num: 45

Candidate Starts for Phranny\_53:

(Start: 32 @33143 has 1 MA's), (Start: 45 @33083 has 334 MA's), (118, 32891), (130, 32786), (131, 32783), (149, 32732), (213, 32615), (219, 32567), (223, 32552),

Gene: PickleBack\_41 Start: 31632, Stop: 30913, Start Num: 50

Candidate Starts for PickleBack\_41:

(Start: 50 @31632 has 202 MA's), (77, 31578), (90, 31554), (103, 31530), (120, 31398), (147, 31254), (208, 31155), (219, 31092), (223, 31077), (228, 31041), (239, 30984),

Gene: Pioneer\_49 Start: 33073, Stop: 32369, Start Num: 45

Candidate Starts for Pioneer\_49:

(Start: 45 @33073 has 334 MA's), (74, 33028), (75, 33025), (77, 33022), (118, 32881), (119, 32866), (125, 32818), (130, 32776), (219, 32557), (223, 32542),

Gene: Pipcraft\_46 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Pipcraft\_46:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Piro94\_49 Start: 33461, Stop: 32733, Start Num: 45

Candidate Starts for Piro94\_49:

(Start: 45 @33461 has 334 MA's), (119, 33224), (125, 33176), (130, 33134), (131, 33131), (213, 32963), (219, 32915), (223, 32900), (225, 32894),

Gene: Pistachio\_51 Start: 32623, Stop: 31895, Start Num: 45

Candidate Starts for Pistachio\_51:

(28, 32692), (Start: 45 @32623 has 334 MA's), (111, 32443), (118, 32401), (130, 32296), (131, 32293), (174, 32194), (203, 32149), (219, 32077), (223, 32062),

Gene: Pmask\_51 Start: 32094, Stop: 31360, Start Num: 45

Candidate Starts for Pmask\_51:

(Start: 45 @32094 has 334 MA's), (74, 32049), (92, 32013), (119, 31857), (130, 31767), (131, 31764), (145, 31713), (198, 31623), (203, 31620), (213, 31596), (219, 31548), (223, 31533), (225, 31527), (241, 31434),

Gene: Pocahontas\_48 Start: 33011, Stop: 32283, Start Num: 45

Candidate Starts for Pocahontas\_48:

(Start: 33 @33065 has 7 MA's), (Start: 45 @33011 has 334 MA's), (70, 32975), (118, 32789), (130, 32684), (174, 32582), (219, 32465), (223, 32450), (240, 32354),

Gene: Polymorphads\_49 Start: 32774, Stop: 32055, Start Num: 50

Candidate Starts for Polymorphads\_49:

(Start: 50 @32774 has 202 MA's), (119, 32546), (125, 32498), (137, 32423), (145, 32402), (147, 32399), (206, 32303), (216, 32249), (219, 32237), (223, 32222), (225, 32216),

Gene: Polyphemus\_53 Start: 32470, Stop: 31733, Start Num: 45

Candidate Starts for Polyphemus\_53:

(Start: 45 @32470 has 334 MA's), (74, 32425), (119, 32233), (127, 32173), (132, 32125), (147, 32083), (162, 32053), (198, 31996), (219, 31921), (223, 31906), (225, 31900), (241, 31807),

Gene: Polyyuki\_18 Start: 8915, Stop: 9802, Start Num: 37

Candidate Starts for Polyyuki\_18:

(Start: 18 @8819 has 1 MA's), (22, 8849), (30, 8888), (Start: 37 @8915 has 5 MA's), (58, 8954), (72, 8981), (85, 9011), (119, 9185), (144, 9335), (155, 9365), (182, 9440), (223, 9599), (234, 9674), (237, 9683),

Gene: Pomar16\_51 Start: 32863, Stop: 32156, Start Num: 45

Candidate Starts for Pomar16\_51:

(Start: 45 @32863 has 334 MA's), (118, 32668), (119, 32653), (130, 32563), (131, 32560), (141, 32518), (219, 32344), (223, 32329), (240, 32233),

Gene: Poompha\_46 Start: 31689, Stop: 30961, Start Num: 44

Candidate Starts for Poompha\_46:

(Start: 44 @31689 has 13 MA's), (Start: 50 @31683 has 202 MA's), (119, 31452), (125, 31404), (130, 31362), (131, 31359), (139, 31323), (150, 31296), (219, 31143), (223, 31128), (240, 31032),

Gene: Popcicle\_48 Start: 33011, Stop: 32283, Start Num: 45

Candidate Starts for Popcicle\_48:

(Start: 33 @33065 has 7 MA's), (Start: 45 @33011 has 334 MA's), (70, 32975), (118, 32789), (130, 32684), (174, 32582), (219, 32465), (223, 32450), (240, 32354),

Gene: PotatoChip\_9 Start: 4719, Stop: 5492, Start Num: 48

Candidate Starts for PotatoChip\_9:

(Start: 48 @4719 has 36 MA's), (51, 4731), (69, 4755), (76, 4773), (122, 4995), (132, 5079), (133, 5082), (179, 5163), (217, 5259), (222, 5277), (223, 5283), (226, 5301), (227, 5313), (245, 5391), (249, 5403),

Gene: PotatoSplit\_54 Start: 33210, Stop: 32503, Start Num: 45

Candidate Starts for PotatoSplit\_54:

(Start: 45 @33210 has 334 MA's), (118, 33018), (130, 32913), (137, 32880), (219, 32685), (223, 32670),

Gene: Power\_48 Start: 33083, Stop: 32358, Start Num: 45

Candidate Starts for Power\_48:

(Start: 45 @33083 has 334 MA's), (119, 32849), (130, 32759), (131, 32756), (145, 32705), (152, 32690), (203, 32612), (213, 32588), (219, 32540), (223, 32525), (225, 32519), (240, 32429),

Gene: Priamo\_53 Start: 31850, Stop: 31140, Start Num: 45

Candidate Starts for Priamo\_53:

(Start: 45 @31850 has 334 MA's), (74, 31805), (119, 31613), (159, 31466), (203, 31400), (219, 31328), (223, 31313), (225, 31307), (241, 31214),

Gene: Prinash11\_42 Start: 31792, Stop: 31079, Start Num: 50

Candidate Starts for Prinash11\_42:

(Start: 50 @31792 has 202 MA's), (74, 31744), (90, 31714), (127, 31501), (131, 31468), (155, 31402), (176, 31366), (209, 31315), (212, 31306), (219, 31258), (223, 31243), (228, 31207), (240, 31147),

Gene: Priya\_49 Start: 33091, Stop: 32387, Start Num: 45

Candidate Starts for Priya\_49:

(Start: 45 @33091 has 334 MA's), (74, 33046), (75, 33043), (77, 33040), (118, 32899), (119, 32884), (125, 32836), (130, 32794), (219, 32575), (223, 32560),

Gene: Prudy\_48 Start: 33800, Stop: 33069, Start Num: 45

Candidate Starts for Prudy\_48:

(Start: 45 @33800 has 334 MA's), (130, 33476), (131, 33473), (145, 33422), (175, 33371), (219, 33257), (223, 33242), (225, 33236),

Gene: Pukovnik\_48 Start: 33871, Stop: 33143, Start Num: 45

Candidate Starts for Pukovnik\_48:

(Start: 45 @33871 has 334 MA's), (119, 33634), (125, 33586), (130, 33544), (131, 33541), (203, 33397), (219, 33325), (223, 33310), (225, 33304),

Gene: Pumbaa\_48 Start: 32726, Stop: 32007, Start Num: 50

Candidate Starts for Pumbaa\_48:

(Start: 50 @32726 has 202 MA's), (119, 32498), (125, 32450), (137, 32375), (145, 32354), (147, 32351), (206, 32255), (216, 32201), (219, 32189), (223, 32174), (225, 32168),

Gene: Pupper\_63 Start: 21949, Stop: 22686, Start Num: 57

Candidate Starts for Pupper\_63:

(Start: 57 @21949 has 10 MA's), (91, 22021), (109, 22090), (144, 22318), (163, 22345), (192, 22384), (225, 22498), (239, 22585), (256, 22672),

Gene: Puppy\_51 Start: 32696, Stop: 31968, Start Num: 45

Candidate Starts for Puppy\_51:

(19, 32822), (Start: 45 @32696 has 334 MA's), (111, 32516), (118, 32474), (130, 32369), (131, 32366), (174, 32267), (203, 32222), (219, 32150), (223, 32135),

Gene: PurpleHaze\_52 Start: 33096, Stop: 32398, Start Num: 45

Candidate Starts for PurpleHaze\_52:

(Start: 32 @33156 has 1 MA's), (Start: 45 @33096 has 334 MA's), (118, 32904), (130, 32799), (131, 32796), (149, 32745), (213, 32628), (219, 32580), (223, 32565),

Gene: Qobbit\_49 Start: 33053, Stop: 32349, Start Num: 45

Candidate Starts for Qobbit\_49:

(Start: 45 @33053 has 334 MA's), (74, 33008), (75, 33005), (77, 33002), (118, 32861), (119, 32846), (125, 32798), (130, 32756), (219, 32537), (223, 32522),

Gene: Quantum\_6 Start: 3780, Stop: 2992, Start Num: 56

Candidate Starts for Quantum\_6:

(35, 3849), (Start: 56 @3780 has 8 MA's), (63, 3771), (70, 3759), (119, 3513), (124, 3474), (132, 3399), (180, 3309), (193, 3288), (215, 3219), (221, 3195), (223, 3183), (237, 3099), (244, 3075), (257, 2997),

Gene: QueenB2\_48 Start: 33043, Stop: 32318, Start Num: 45

Candidate Starts for QueenB2\_48:

(Start: 45 @33043 has 334 MA's), (119, 32809), (130, 32719), (131, 32716), (145, 32665), (152, 32650), (203, 32572), (219, 32500), (223, 32485),

Gene: QueenBeesly\_49 Start: 33030, Stop: 32305, Start Num: 45

Candidate Starts for QueenBeesly\_49:

(Start: 45 @33030 has 334 MA's), (119, 32796), (130, 32706), (131, 32703), (145, 32652), (170, 32607), (175, 32601), (213, 32535), (219, 32487), (223, 32472), (225, 32466), (240, 32376),

Gene: QuinnKiro\_47 Start: 33068, Stop: 32286, Start Num: 33

Candidate Starts for QuinnKiro\_47:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: Quokka\_47 Start: 32001, Stop: 31303, Start Num: 46

Candidate Starts for Quokka\_47:

(Start: 46 @32001 has 1 MA's), (119, 31770), (125, 31722), (127, 31710), (132, 31662), (147, 31623), (208, 31548), (219, 31485), (223, 31470),

Gene: RER2\_31 Start: 26042, Stop: 25281, Start Num: 48

Candidate Starts for RER2\_31:

(Start: 27 @26114 has 8 MA's), (Start: 48 @26042 has 36 MA's), (125, 25742), (132, 25682), (139, 25661), (159, 25610), (191, 25550), (204, 25535), (223, 25448), (226, 25430), (237, 25364), (240, 25352),

Gene: RGL3\_33 Start: 26970, Stop: 26239, Start Num: 48

Candidate Starts for RGL3\_33:

(Start: 32 @27033 has 1 MA's), (Start: 48 @26970 has 36 MA's), (52, 26958), (97, 26871), (119, 26727), (132, 26619), (141, 26595), (184, 26520), (198, 26496), (223, 26406), (226, 26388), (228, 26370),

Gene: Rachaly\_48 Start: 33353, Stop: 32622, Start Num: 45

Candidate Starts for Rachaly\_48:

(Start: 45 @33353 has 334 MA's), (118, 33134), (125, 33071), (130, 33029), (131, 33026), (219, 32810), (223, 32795), (225, 32789), (240, 32699),

Gene: Rahalelujah\_49 Start: 32557, Stop: 31856, Start Num: 45

Candidate Starts for Rahalelujah\_49:

(Start: 45 @32557 has 334 MA's), (119, 32347), (125, 32299), (130, 32257), (135, 32230), (147, 32200), (150, 32191), (162, 32170), (198, 32113), (219, 32038), (223, 32023),

Gene: Rasputin\_38 Start: 29140, Stop: 28379, Start Num: 48

Candidate Starts for Rasputin\_38:

(Start: 27 @29212 has 8 MA's), (Start: 48 @29140 has 36 MA's), (119, 28888), (125, 28840), (132, 28780), (139, 28759), (159, 28708), (191, 28648), (204, 28633), (223, 28546), (226, 28528), (237, 28462), (240, 28450),

Gene: Ravana\_53 Start: 32182, Stop: 31454, Start Num: 49

Candidate Starts for Ravana\_53:

(Start: 49 @32182 has 24 MA's), (94, 32092), (119, 31936), (130, 31846), (165, 31765), (219, 31636), (223, 31621),

Gene: ReMo\_51 Start: 31560, Stop: 30862, Start Num: 49

Candidate Starts for ReMo\_51:

(Start: 49 @31560 has 24 MA's), (81, 31503), (119, 31344), (130, 31254), (131, 31251), (165, 31173), (219, 31044), (223, 31029),

Gene: Reba\_52 Start: 32756, Stop: 32058, Start Num: 45

Candidate Starts for Reba\_52:

(Start: 32 @32816 has 1 MA's), (Start: 45 @32756 has 334 MA's), (118, 32564), (130, 32459), (131, 32456), (149, 32405), (213, 32288), (219, 32240), (223, 32225),

Gene: Rebeuca\_47 Start: 32788, Stop: 32051, Start Num: 44

Candidate Starts for Rebeuca\_47:

(Start: 44 @32788 has 13 MA's), (Start: 50 @32782 has 202 MA's), (119, 32542), (125, 32494), (130, 32452), (131, 32449), (158, 32380), (175, 32347), (206, 32299), (219, 32233), (223, 32218), (225, 32212), (228, 32182), (240, 32122),

Gene: RedRock\_51 Start: 34246, Stop: 33512, Start Num: 45

Candidate Starts for RedRock\_51:

(Start: 45 @34246 has 334 MA's), (74, 34201), (119, 34009), (125, 33961), (130, 33919), (131, 33916), (145, 33865), (175, 33814), (219, 33700), (223, 33685), (225, 33679), (228, 33649), (241, 33586),

Gene: RedWattleHog\_184 Start: 115100, Stop: 115843, Start Num: 55

Candidate Starts for RedWattleHog\_184:

(Start: 55 @115100 has 5 MA's), (67, 115115), (75, 115136), (77, 115139), (79, 115142), (101, 115193), (106, 115214), (119, 115328), (143, 115463), (170, 115505), (197, 115538), (216, 115613), (224, 115643), (225, 115646), (227, 115670), (229, 115679), (237, 115724), (239, 115733), (250, 115769),

Gene: Refuge\_48 Start: 34235, Stop: 33531, Start Num: 45

Candidate Starts for Refuge\_48:

(Start: 45 @34235 has 334 MA's), (118, 34043), (119, 34028), (131, 33935), (216, 33731), (219, 33719), (223, 33704), (225, 33698), (228, 33668),

Gene: Relief\_47 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Relief\_47:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Remus\_52 Start: 31485, Stop: 30787, Start Num: 49

Candidate Starts for Remus\_52:

(Start: 49 @31485 has 24 MA's), (81, 31428), (119, 31269), (130, 31179), (131, 31176), (165, 31098), (219, 30969), (223, 30954),

Gene: ResDef\_48 Start: 33014, Stop: 32286, Start Num: 45

Candidate Starts for ResDef\_48:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: Retro23\_50 Start: 33437, Stop: 32712, Start Num: 45

Candidate Starts for Retro23\_50:

(Start: 45 @33437 has 334 MA's), (119, 33203), (130, 33113), (131, 33110), (145, 33059), (213, 32942), (219, 32894), (223, 32879), (225, 32873), (228, 32843),

Gene: RexFury\_38 Start: 29201, Stop: 28440, Start Num: 48

Candidate Starts for RexFury\_38:

(Start: 27 @29273 has 8 MA's), (Start: 48 @29201 has 36 MA's), (119, 28949), (125, 28901), (132, 28841), (139, 28820), (159, 28769), (191, 28709), (204, 28694), (223, 28607), (226, 28589), (237, 28523), (240, 28511),

Gene: Rhodalysa\_38 Start: 29242, Stop: 28409, Start Num: 27

Candidate Starts for Rhodalysa\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (150, 28762), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: RhynO\_48 Start: 32587, Stop: 31850, Start Num: 44

Candidate Starts for RhynO\_48:

(Start: 44 @32587 has 13 MA's), (Start: 50 @32581 has 202 MA's), (92, 32494), (119, 32341), (125, 32293), (130, 32251), (131, 32248), (147, 32194), (158, 32179), (175, 32146), (206, 32098), (219, 32032), (223, 32017), (240, 31921),

Gene: Rifter\_52 Start: 31639, Stop: 30911, Start Num: 45

Candidate Starts for Rifter\_52:

(Start: 45 @31639 has 334 MA's), (74, 31594), (119, 31402), (125, 31354), (130, 31312), (131, 31309), (155, 31243), (180, 31207), (210, 31156), (213, 31147), (219, 31099), (223, 31084), (241, 30985),

Gene: RockieBear\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for RockieBear\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Rocksand\_48 Start: 32777, Stop: 32058, Start Num: 50

Candidate Starts for Rocksand\_48:

(Start: 50 @32777 has 202 MA's), (119, 32549), (125, 32501), (137, 32426), (145, 32405), (147, 32402), (206, 32306), (216, 32252), (219, 32240), (223, 32225), (225, 32219),

Gene: Rockstar\_49 Start: 32505, Stop: 31771, Start Num: 45

Candidate Starts for Rockstar\_49:

(Start: 45 @32505 has 334 MA's), (118, 32277), (130, 32172), (131, 32169), (147, 32115), (174, 32070), (203, 32025), (219, 31953), (223, 31938), (240, 31842),

Gene: Roimos\_49 Start: 32873, Stop: 32145, Start Num: 45

Candidate Starts for Roimos\_49:

(Start: 45 @32873 has 334 MA's), (70, 32837), (111, 32693), (118, 32651), (130, 32546), (131, 32543), (174, 32444), (219, 32327), (223, 32312), (225, 32306),

Gene: Roksolana\_52 Start: 32130, Stop: 31396, Start Num: 45

Candidate Starts for Roksolana\_52:

(Start: 45 @32130 has 334 MA's), (74, 32085), (119, 31893), (130, 31803), (131, 31800), (145, 31749), (198, 31659), (203, 31656), (213, 31632), (219, 31584), (223, 31569), (225, 31563), (241, 31470),

Gene: Romney\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Romney\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Roosevelt\_47 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Roosevelt\_47:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Rosa24\_47 Start: 32812, Stop: 32093, Start Num: 50

Candidate Starts for Rosa24\_47:

(Start: 50 @32812 has 202 MA's), (84, 32749), (119, 32584), (125, 32536), (137, 32461), (145, 32440), (147, 32437), (206, 32341), (216, 32287), (219, 32275), (223, 32260), (225, 32254),

Gene: Rosalind\_51 Start: 31718, Stop: 30993, Start Num: 49

Candidate Starts for Rosalind\_51:

(Start: 49 @31718 has 24 MA's), (87, 31640), (92, 31628), (119, 31478), (130, 31388), (131, 31385), (136, 31358), (167, 31301), (219, 31175), (223, 31160),

Gene: Rowa\_46 Start: 33718, Stop: 34437, Start Num: 41

Candidate Starts for Rowa\_46:

(34, 33679), (Start: 41 @33718 has 1 MA's), (Start: 50 @33733 has 202 MA's), (98, 33829), (119, 33961), (120, 33964), (123, 33991), (129, 34042), (130, 34054), (131, 34057), (132, 34072), (208, 34195), (216, 34246), (223, 34273), (224, 34276), (225, 34279), (228, 34309), (240, 34369), (242, 34375), (253, 34423),

Gene: Rowdy\_51 Start: 32495, Stop: 31758, Start Num: 44

Candidate Starts for Rowdy\_51:

(Start: 44 @32495 has 13 MA's), (Start: 50 @32489 has 202 MA's), (92, 32402), (119, 32249), (125, 32201), (130, 32159), (131, 32156), (147, 32102), (158, 32087), (175, 32054), (206, 32006), (219, 31940), (223, 31925), (240, 31829),

Gene: Ruin\_48 Start: 32774, Stop: 32055, Start Num: 50

Candidate Starts for Ruin\_48:

(Start: 50 @32774 has 202 MA's), (119, 32546), (125, 32498), (137, 32423), (145, 32402), (147, 32399), (206, 32303), (216, 32249), (219, 32237), (223, 32222), (225, 32216),

Gene: Rummer\_51 Start: 33237, Stop: 32530, Start Num: 45

Candidate Starts for Rummer\_51:

(Start: 45 @33237 has 334 MA's), (118, 33045), (219, 32712), (223, 32697),

Gene: RunningOnE\_22 Start: 9918, Stop: 9211, Start Num: 50

Candidate Starts for RunningOnE\_22:

(Start: 50 @9918 has 202 MA's), (74, 9873), (130, 9597), (131, 9594), (203, 9471), (222, 9390), (223, 9384), (232, 9327), (236, 9303), (240, 9288),

Gene: RyeScarlet\_50 Start: 33048, Stop: 32344, Start Num: 45

Candidate Starts for RyeScarlet\_50:

(Start: 45 @33048 has 334 MA's), (74, 33003), (75, 33000), (77, 32997), (118, 32856), (119, 32841), (125, 32793), (130, 32751), (219, 32532), (223, 32517),

Gene: SCentae\_62 Start: 21703, Stop: 22440, Start Num: 57

Candidate Starts for SCentae\_62:

(Start: 57 @21703 has 10 MA's), (91, 21775), (109, 21844), (144, 22072), (163, 22099), (192, 22138), (225, 22252), (239, 22339), (256, 22426),

Gene: Sabertooth\_48 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Sabertooth\_48:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Sabia\_52 Start: 33200, Stop: 32493, Start Num: 45

Candidate Starts for Sabia\_52:

(Start: 45 @33200 has 334 MA's), (118, 33008), (130, 32903), (137, 32870), (219, 32675), (223, 32660),

Gene: Sabinator\_51 Start: 33205, Stop: 32498, Start Num: 45

Candidate Starts for Sabinator\_51:

(Start: 45 @33205 has 334 MA's), (118, 33013), (130, 32908), (137, 32875), (219, 32680), (223, 32665),

Gene: Sachima\_46 Start: 32958, Stop: 32254, Start Num: 45

Candidate Starts for Sachima\_46:

(Start: 45 @32958 has 334 MA's), (74, 32913), (75, 32910), (77, 32907), (118, 32766), (119, 32751), (125, 32703), (130, 32661), (213, 32490), (219, 32442), (223, 32427),

Gene: Salz\_48 Start: 32160, Stop: 31447, Start Num: 45

Candidate Starts for Salz\_48:

(Start: 45 @32160 has 334 MA's), (77, 32109), (125, 31887), (130, 31845), (195, 31704), (213, 31674), (216, 31638), (219, 31626), (223, 31611), (225, 31605), (240, 31515),

Gene: Samora\_42 Start: 32452, Stop: 33144, Start Num: 50

Candidate Starts for Samora\_42:

(Start: 50 @32452 has 202 MA's), (64, 32479), (119, 32668), (121, 32686), (131, 32764), (223, 32977), (225, 32983), (240, 33073),

Gene: Sarkar\_6 Start: 3780, Stop: 2992, Start Num: 56

Candidate Starts for Sarkar\_6:

(35, 3849), (Start: 56 @3780 has 8 MA's), (63, 3771), (70, 3759), (119, 3513), (124, 3474), (132, 3399), (180, 3309), (193, 3288), (215, 3219), (221, 3195), (223, 3183), (237, 3099), (244, 3075), (257, 2997),

Gene: Saskia\_50 Start: 32159, Stop: 31440, Start Num: 45

Candidate Starts for Saskia\_50:

(Start: 45 @32159 has 334 MA's), (74, 32114), (119, 31922), (125, 31874), (130, 31832), (131, 31829), (155, 31763), (180, 31727), (210, 31676), (213, 31667), (219, 31619), (223, 31604), (240, 31508),

Gene: Satis\_6 Start: 3776, Stop: 2988, Start Num: 56

Candidate Starts for Satis\_6:

(35, 3845), (Start: 56 @3776 has 8 MA's), (63, 3767), (70, 3755), (119, 3509), (124, 3470), (132, 3395), (180, 3305), (193, 3284), (215, 3215), (221, 3191), (223, 3179), (237, 3095), (244, 3071), (257, 2993),

Gene: SaturnRing\_50 Start: 33076, Stop: 32348, Start Num: 45

Candidate Starts for SaturnRing\_50:

(Start: 45 @33076 has 334 MA's), (111, 32896), (118, 32854), (130, 32749), (131, 32746), (174, 32647), (203, 32602), (219, 32530), (223, 32515),

Gene: Scamp\_48 Start: 32783, Stop: 32064, Start Num: 50

Candidate Starts for Scamp\_48:

(Start: 50 @32783 has 202 MA's), (119, 32555), (125, 32507), (137, 32432), (145, 32411), (147, 32408), (206, 32312), (216, 32258), (219, 32246), (223, 32231), (225, 32225),

Gene: Scherzo\_49 Start: 33262, Stop: 32558, Start Num: 45

Candidate Starts for Scherzo\_49:

(Start: 45 @33262 has 334 MA's), (74, 33217), (75, 33214), (77, 33211), (118, 33070), (119, 33055), (125, 33007), (130, 32965), (219, 32746), (223, 32731),

Gene: Scorpia\_45 Start: 31749, Stop: 31045, Start Num: 50

Candidate Starts for Scorpia\_45:

(Start: 50 @31749 has 202 MA's), (117, 31554), (118, 31548), (125, 31485), (130, 31443), (131, 31440), (138, 31407), (174, 31341), (213, 31272), (219, 31224), (223, 31209),

Gene: Scout\_49 Start: 32204, Stop: 31476, Start Num: 45

Candidate Starts for Scout\_49:

(Start: 45 @32204 has 334 MA's), (70, 32168), (111, 32024), (118, 31982), (130, 31877), (131, 31874), (174, 31775), (219, 31658), (223, 31643), (225, 31637),

Gene: Sebastisaurus\_42 Start: 32978, Stop: 33688, Start Num: 50

Candidate Starts for Sebastisaurus\_42:

(Start: 50 @32978 has 202 MA's), (73, 33020), (74, 33023), (85, 33047), (93, 33062), (115, 33161), (123, 33224), (124, 33233), (131, 33290), (132, 33305), (140, 33329), (164, 33380), (170, 33386), (187, 33416), (223, 33524), (224, 33527), (225, 33530), (228, 33560), (248, 33641), (251, 33665),

Gene: SemperFi\_50 Start: 33298, Stop: 32573, Start Num: 45

Candidate Starts for SemperFi\_50:

(Start: 45 @33298 has 334 MA's), (119, 33064), (130, 32974), (131, 32971), (145, 32920), (170, 32875), (175, 32869), (213, 32803), (219, 32755), (223, 32740), (225, 32734), (240, 32644),

Gene: SenorClean\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for SenorClean\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Sephiroth\_106 Start: 60622, Stop: 61335, Start Num: 57

Candidate Starts for Sephiroth\_106:

(Start: 57 @60622 has 10 MA's), (91, 60685), (107, 60730), (108, 60733), (119, 60841), (124, 60880), (128, 60907), (129, 60922), (142, 60982), (173, 61024), (202, 61063), (216, 61120), (227, 61177), (229, 61186), (234, 61222), (247, 61261), (250, 61276), (254, 61294),

Gene: Serenity\_49 Start: 32189, Stop: 31464, Start Num: 45

Candidate Starts for Serenity\_49:

(Start: 45 @32189 has 334 MA's), (119, 31958), (125, 31910), (127, 31898), (132, 31850), (208, 31709), (219, 31646), (223, 31631),

Gene: Severus\_45 Start: 31683, Stop: 30961, Start Num: 50

Candidate Starts for Severus\_45:

(Start: 44 @31689 has 13 MA's), (Start: 50 @31683 has 202 MA's), (119, 31452), (125, 31404), (130, 31362), (131, 31359), (139, 31323), (150, 31296), (219, 31143), (223, 31128), (240, 31032),

Gene: Shaka\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Shaka\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Sham4\_49 Start: 32188, Stop: 31475, Start Num: 45

Candidate Starts for Sham4\_49:

(Start: 45 @32188 has 334 MA's), (77, 32137), (125, 31915), (130, 31873), (195, 31732), (213, 31702), (216, 31666), (219, 31654), (223, 31639), (225, 31633), (240, 31543),

Gene: Shapes\_51 Start: 32495, Stop: 31758, Start Num: 44

Candidate Starts for Shapes\_51:

(Start: 44 @32495 has 13 MA's), (Start: 50 @32489 has 202 MA's), (92, 32402), (119, 32249), (125, 32201), (130, 32159), (131, 32156), (147, 32102), (158, 32087), (175, 32054), (206, 32006), (219, 31940), (223, 31925), (240, 31829),

Gene: Shawty\_40 Start: 31544, Stop: 32257, Start Num: 50

Candidate Starts for Shawty\_40:

(Start: 50 @31544 has 202 MA's), (119, 31772), (121, 31790), (124, 31811), (131, 31868), (132, 31883), (141, 31910), (150, 31931), (158, 31940), (187, 31976), (223, 32084), (224, 32087), (225, 32090), (228, 32120), (245, 32192), (248, 32201),

Gene: ShayRa\_53 Start: 31764, Stop: 31066, Start Num: 49

Candidate Starts for ShayRa\_53:

(Start: 49 @31764 has 24 MA's), (81, 31707), (119, 31548), (130, 31458), (131, 31455), (165, 31377), (219, 31248), (223, 31233),

Gene: SheaKeira\_48 Start: 32614, Stop: 31907, Start Num: 45

Candidate Starts for SheaKeira\_48:

(Start: 45 @32614 has 334 MA's), (118, 32419), (119, 32404), (125, 32356), (135, 32287), (206, 32161), (219, 32095), (223, 32080), (240, 31984),

Gene: Sheen\_49 Start: 35012, Stop: 34317, Start Num: 50

Candidate Starts for Sheen\_49:

(20, 35141), (Start: 50 @35012 has 202 MA's), (72, 34970), (75, 34964), (119, 34808), (160, 34637), (173, 34616), (188, 34589), (219, 34499), (223, 34484), (247, 34370),

Gene: SheldonCooper\_50 Start: 33204, Stop: 32485, Start Num: 50

Candidate Starts for SheldonCooper\_50:

(Start: 50 @33204 has 202 MA's), (74, 33159), (119, 32976), (125, 32928), (145, 32832), (147, 32829), (216, 32679), (219, 32667), (223, 32652), (225, 32646),

Gene: Shep\_49 Start: 31918, Stop: 31190, Start Num: 45

Candidate Starts for Shep\_49:

(Start: 45 @31918 has 334 MA's), (70, 31882), (111, 31738), (118, 31696), (130, 31591), (131, 31588), (174, 31489), (219, 31372), (223, 31357), (225, 31351),

Gene: Shuman\_38 Start: 29255, Stop: 28422, Start Num: 27

Candidate Starts for Shuman\_38:

(Start: 27 @29255 has 8 MA's), (Start: 48 @29183 has 36 MA's), (119, 28931), (125, 28883), (132, 28823), (139, 28802), (159, 28751), (191, 28691), (204, 28676), (223, 28589), (226, 28571), (237, 28505), (240, 28493),

Gene: Shygu2\_47 Start: 32757, Stop: 32038, Start Num: 50

Candidate Starts for Shygu2\_47:

(Start: 50 @32757 has 202 MA's), (119, 32529), (131, 32436), (145, 32385), (147, 32382), (206, 32286), (208, 32283), (219, 32220), (223, 32205),

Gene: Skadoosh\_49 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Skadoosh\_49:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Skipitt\_47 Start: 32775, Stop: 32056, Start Num: 50

Candidate Starts for Skipitt\_47:

(Start: 50 @32775 has 202 MA's), (119, 32547), (125, 32499), (137, 32424), (145, 32403), (147, 32400), (206, 32304), (216, 32250), (219, 32238), (223, 32223), (225, 32217),

Gene: Sknot\_49 Start: 33120, Stop: 32392, Start Num: 45

Candidate Starts for Sknot\_49:

(Start: 45 @33120 has 334 MA's), (119, 32883), (125, 32835), (130, 32793), (131, 32790), (213, 32622), (219, 32574), (223, 32559), (225, 32553),

Gene: Smeagan\_52 Start: 33750, Stop: 33025, Start Num: 45

Candidate Starts for Smeagan\_52:

(Start: 45 @33750 has 334 MA's), (119, 33516), (130, 33426), (131, 33423), (175, 33321), (213, 33255), (219, 33207), (223, 33192), (225, 33186),

Gene: SmellyB\_51 Start: 32085, Stop: 31348, Start Num: 45

Candidate Starts for SmellyB\_51:

(Start: 45 @32085 has 334 MA's), (74, 32040), (119, 31848), (132, 31740), (147, 31698), (198, 31611), (219, 31536), (223, 31521), (225, 31515), (241, 31422),

Gene: SnapTap\_49 Start: 33109, Stop: 32384, Start Num: 45

Candidate Starts for SnapTap\_49:

(Start: 45 @33109 has 334 MA's), (119, 32875), (130, 32785), (131, 32782), (145, 32731), (152, 32716), (203, 32638), (213, 32614), (219, 32566), (223, 32551), (225, 32545), (240, 32455),

Gene: Snape\_49 Start: 32186, Stop: 31473, Start Num: 45

Candidate Starts for Snape\_49:

(Start: 45 @32186 has 334 MA's), (77, 32135), (125, 31913), (130, 31871), (195, 31730), (213, 31700), (216, 31664), (219, 31652), (223, 31637), (225, 31631), (240, 31541),

Gene: Snickers\_52 Start: 33180, Stop: 32473, Start Num: 45

Candidate Starts for Snickers\_52:

(Start: 45 @33180 has 334 MA's), (118, 32988), (130, 32883), (137, 32850), (219, 32655), (223, 32640),

Gene: SoYo\_52 Start: 33118, Stop: 32411, Start Num: 45

Candidate Starts for SoYo\_52:

(Start: 45 @33118 has 334 MA's), (118, 32926), (130, 32821), (137, 32788), (219, 32593), (223, 32578),

Gene: SoilDragon\_52 Start: 32654, Stop: 31947, Start Num: 45

Candidate Starts for SoilDragon\_52:

(Start: 45 @32654 has 334 MA's), (118, 32462), (130, 32357), (219, 32129), (223, 32114),

Gene: Soshari\_54 Start: 33233, Stop: 32526, Start Num: 45

Candidate Starts for Soshari\_54:

(Start: 45 @33233 has 334 MA's), (118, 33041), (219, 32708), (223, 32693),

Gene: Soups\_52 Start: 31793, Stop: 31065, Start Num: 49

Candidate Starts for Soups\_52:

(Start: 49 @31793 has 24 MA's), (94, 31703), (119, 31547), (130, 31457), (131, 31454), (165, 31376), (219, 31247), (223, 31232),

Gene: Sparxx\_49 Start: 32776, Stop: 32057, Start Num: 50

Candidate Starts for Sparxx\_49:

(Start: 50 @32776 has 202 MA's), (119, 32548), (125, 32500), (137, 32425), (145, 32404), (147, 32401), (206, 32305), (216, 32251), (219, 32239), (223, 32224), (225, 32218),

Gene: Spike509\_52 Start: 33234, Stop: 32527, Start Num: 45

Candidate Starts for Spike509\_52:

(Start: 45 @33234 has 334 MA's), (118, 33042), (219, 32709), (223, 32694),

Gene: Spino\_47 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Spino\_47:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Spouty\_49 Start: 33090, Stop: 32386, Start Num: 45

Candidate Starts for Spouty\_49:

(Start: 45 @33090 has 334 MA's), (74, 33045), (75, 33042), (77, 33039), (118, 32898), (119, 32883), (125, 32835), (130, 32793), (219, 32574), (223, 32559),

Gene: StCroix\_38 Start: 29183, Stop: 28422, Start Num: 48

Candidate Starts for StCroix\_38:

(Start: 27 @29255 has 8 MA's), (Start: 48 @29183 has 36 MA's), (119, 28931), (125, 28883), (132, 28823), (139, 28802), (150, 28775), (159, 28751), (191, 28691), (204, 28676), (223, 28589), (226, 28571), (237, 28505), (240, 28493),

Gene: Stagni\_52 Start: 33209, Stop: 32502, Start Num: 45

Candidate Starts for Stagni\_52:

(Start: 45 @33209 has 334 MA's), (118, 33017), (130, 32912), (137, 32879), (219, 32684), (223, 32669),

Gene: StarStuff\_51 Start: 32825, Stop: 32118, Start Num: 45

Candidate Starts for StarStuff\_51:

(Start: 45 @32825 has 334 MA's), (118, 32630), (119, 32615), (130, 32525), (131, 32522), (141, 32480), (219, 32306), (223, 32291), (240, 32195),

Gene: Stasia\_47 Start: 32652, Stop: 31936, Start Num: 50

Candidate Starts for Stasia\_47:

(Start: 50 @32652 has 202 MA's), (74, 32607), (119, 32424), (125, 32376), (130, 32334), (131, 32331), (173, 32235), (174, 32232), (217, 32124), (219, 32115), (223, 32100),

Gene: SteMason\_47 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for SteMason\_47:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Steamy\_45 Start: 32519, Stop: 31815, Start Num: 45

Candidate Starts for Steamy\_45:

(Start: 45 @32519 has 334 MA's), (118, 32327), (119, 32312), (137, 32189), (178, 32111), (216, 32015), (219, 32003), (223, 31988),

Gene: StepMih\_52 Start: 33200, Stop: 32493, Start Num: 45

Candidate Starts for StepMih\_52:

(Start: 45 @33200 has 334 MA's), (118, 33008), (130, 32903), (137, 32870), (219, 32675), (223, 32660),

Gene: Stickynote\_9 Start: 4738, Stop: 5511, Start Num: 48

Candidate Starts for Stickynote\_9:

(Start: 48 @4738 has 36 MA's), (51, 4750), (69, 4774), (76, 4792), (122, 5014), (133, 5101), (196, 5212), (223, 5302), (226, 5320), (227, 5332), (245, 5410), (249, 5422),

Gene: Stormageddon\_185 Start: 116065, Stop: 116808, Start Num: 55

Candidate Starts for Stormageddon\_185:

(Start: 55 @116065 has 5 MA's), (67, 116080), (75, 116101), (77, 116104), (79, 116107), (101, 116158), (106, 116179), (119, 116293), (143, 116428), (170, 116470), (197, 116503), (216, 116578), (224, 116608), (225, 116611), (227, 116635), (229, 116644), (237, 116689), (239, 116698), (250, 116734),

Gene: Strosahl\_52 Start: 31485, Stop: 30787, Start Num: 49

Candidate Starts for Strosahl\_52:

(Start: 49 @31485 has 24 MA's), (81, 31428), (119, 31269), (130, 31179), (131, 31176), (165, 31098), (219, 30969), (223, 30954),

Gene: Sultana\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for Sultana\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: SuperAwesome\_51 Start: 32093, Stop: 31359, Start Num: 45

Candidate Starts for SuperAwesome\_51:

(Start: 45 @32093 has 334 MA's), (74, 32048), (92, 32012), (119, 31856), (130, 31766), (131, 31763), (145, 31712), (198, 31622), (203, 31619), (213, 31595), (219, 31547), (223, 31532), (225, 31526), (241, 31433),

Gene: SuperCallie99\_50 Start: 31966, Stop: 31232, Start Num: 45

Candidate Starts for SuperCallie99\_50:

(Start: 45 @31966 has 334 MA's), (74, 31921), (119, 31729), (125, 31681), (130, 31639), (131, 31636), (145, 31585), (198, 31495), (203, 31492), (213, 31468), (219, 31420), (223, 31405), (225, 31399), (241, 31306),

Gene: Superchunk\_48 Start: 31632, Stop: 30928, Start Num: 45

Candidate Starts for Superchunk\_48:

(Start: 45 @31632 has 334 MA's), (107, 31536), (130, 31335), (131, 31332), (141, 31290), (154, 31269), (178, 31224), (219, 31116), (223, 31101), (224, 31098), (225, 31095), (240, 31005),

Gene: Swann\_38 Start: 29170, Stop: 28409, Start Num: 48

Candidate Starts for Swann\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: SweetiePie\_49 Start: 33238, Stop: 32513, Start Num: 45

Candidate Starts for SweetiePie\_49:

(Start: 45 @33238 has 334 MA's), (119, 33004), (126, 32953), (130, 32914), (131, 32911), (145, 32860), (170, 32815), (175, 32809), (213, 32743), (219, 32695), (223, 32680), (225, 32674), (240, 32584),

Gene: SwirlSquare\_52 Start: 32323, Stop: 31595, Start Num: 45

Candidate Starts for SwirlSquare\_52:

(Start: 45 @32323 has 334 MA's), (119, 32092), (125, 32044), (130, 32002), (131, 31999), (141, 31957), (175, 31897), (178, 31891), (216, 31795), (219, 31783), (223, 31768), (228, 31732), (240, 31672),

Gene: Swirley\_44 Start: 32293, Stop: 31580, Start Num: 50

Candidate Starts for Swirley\_44:

(Start: 50 @32293 has 202 MA's), (74, 32245), (90, 32215), (127, 32002), (130, 31972), (131, 31969), (155, 31903), (176, 31867), (209, 31816), (212, 31807), (219, 31759), (223, 31744), (228, 31708), (240, 31648),

Gene: Switzerland\_52 Start: 31898, Stop: 31173, Start Num: 49

Candidate Starts for Switzerland\_52:

(Start: 49 @31898 has 24 MA's), (87, 31820), (92, 31808), (119, 31658), (130, 31568), (131, 31565), (136, 31538), (167, 31481), (219, 31355), (223, 31340),

Gene: SydNat\_43 Start: 32489, Stop: 31770, Start Num: 50

Candidate Starts for SydNat\_43:

(Start: 50 @32489 has 202 MA's), (74, 32441), (118, 32273), (131, 32165), (216, 31961), (219, 31949), (223, 31934), (228, 31898), (239, 31841),

Gene: Syleon\_110 Start: 61211, Stop: 61927, Start Num: 57

Candidate Starts for Syleon\_110:

(Start: 57 @61211 has 10 MA's), (71, 61229), (91, 61274), (107, 61319), (108, 61322), (119, 61430), (124, 61469), (129, 61511), (142, 61571), (202, 61652), (216, 61709), (225, 61742), (227, 61766), (229, 61775), (234, 61811), (247, 61850), (250, 61865), (254, 61883),

Gene: TG1\_37 Start: 30675, Stop: 31379, Start Num: 50

Candidate Starts for TG1\_37:

(24, 30573), (38, 30639), (Start: 41 @30660 has 1 MA's), (Start: 50 @30675 has 202 MA's), (98, 30774), (120, 30906), (121, 30921), (131, 30999), (223, 31215), (225, 31221), (232, 31272), (239, 31308), (251, 31356),

Gene: TNguyen7\_50 Start: 33043, Stop: 32315, Start Num: 45

Candidate Starts for TNguyen7\_50:

(19, 33169), (Start: 45 @33043 has 334 MA's), (111, 32863), (118, 32821), (130, 32716), (131, 32713), (174, 32614), (203, 32569), (219, 32497), (223, 32482),

Gene: TWAMP\_38 Start: 29242, Stop: 28409, Start Num: 27

Candidate Starts for TWAMP\_38:

(Start: 27 @29242 has 8 MA's), (Start: 48 @29170 has 36 MA's), (119, 28918), (125, 28870), (132, 28810), (139, 28789), (150, 28762), (159, 28738), (191, 28678), (204, 28663), (223, 28576), (226, 28558), (237, 28492), (240, 28480),

Gene: Tailonex\_36 Start: 31505, Stop: 30813, Start Num: 57

Candidate Starts for Tailonex\_36:

(Start: 50 @31523 has 202 MA's), (Start: 57 @31505 has 10 MA's), (74, 31475), (89, 31442), (95, 31427), (125, 31229), (129, 31199), (131, 31184), (132, 31169), (181, 31082), (186, 31076), (220, 30977), (225, 30959), (228, 30929), (239, 30872), (254, 30824),

Gene: Takoda\_38 Start: 29143, Stop: 28382, Start Num: 48

Candidate Starts for Takoda\_38:

(Start: 27 @29215 has 8 MA's), (Start: 48 @29143 has 36 MA's), (119, 28891), (125, 28843), (132, 28783), (139, 28762), (150, 28735), (159, 28711), (191, 28651), (204, 28636), (223, 28549), (226, 28531), (240, 28453),

Gene: Talos\_164 Start: 85603, Stop: 86307, Start Num: 50

Candidate Starts for Talos\_164:

(29, 85528), (39, 85564), (Start: 50 @85603 has 202 MA's), (74, 85654), (103, 85705), (110, 85765), (124, 85873), (127, 85897), (129, 85915), (134, 85951), (157, 85996), (161, 86011), (204, 86056), (217, 86119), (228, 86179), (235, 86221),

Gene: Taquarus\_48 Start: 32784, Stop: 32065, Start Num: 50

Candidate Starts for Taquarus\_48:

(Start: 50 @32784 has 202 MA's), (119, 32556), (125, 32508), (137, 32433), (145, 32412), (147, 32409), (206, 32313), (216, 32259), (219, 32247), (223, 32232), (225, 32226),

Gene: TarsusIV\_48 Start: 33069, Stop: 32335, Start Num: 45

Candidate Starts for TarsusIV\_48:

(Start: 45 @33069 has 334 MA's), (119, 32826), (125, 32778), (130, 32736), (131, 32733), (213, 32565), (219, 32517), (223, 32502), (225, 32496), (240, 32406),

Gene: Tarynearal\_40 Start: 31735, Stop: 31022, Start Num: 50

Candidate Starts for Tarynearal\_40:

(Start: 50 @31735 has 202 MA's), (74, 31687), (90, 31657), (127, 31444), (131, 31411), (155, 31345), (176, 31309), (209, 31258), (212, 31249), (219, 31201), (223, 31186), (228, 31150), (240, 31090),

Gene: Taurus\_53 Start: 33206, Stop: 32499, Start Num: 45

Candidate Starts for Taurus\_53:

(Start: 45 @33206 has 334 MA's), (118, 33014), (130, 32909), (137, 32876), (219, 32681), (223, 32666),

Gene: Temprado\_52 Start: 32237, Stop: 31509, Start Num: 45

Candidate Starts for Temprado\_52:

(Start: 45 @32237 has 334 MA's), (74, 32192), (119, 32000), (125, 31952), (130, 31910), (131, 31907), (155, 31841), (180, 31805), (210, 31754), (213, 31745), (219, 31697), (223, 31682), (241, 31583),

Gene: Terrific\_52 Start: 33474, Stop: 32746, Start Num: 45

Candidate Starts for Terrific\_52:

(Start: 45 @33474 has 334 MA's), (119, 33237), (125, 33189), (130, 33147), (131, 33144), (213, 32976), (219, 32928), (223, 32913), (225, 32907),

Gene: Texage\_47 Start: 33069, Stop: 32287, Start Num: 33

Candidate Starts for Texage\_47:

(Start: 33 @33069 has 7 MA's), (Start: 45 @33015 has 334 MA's), (70, 32979), (118, 32793), (130, 32688), (174, 32586), (219, 32469), (223, 32454), (240, 32358),

Gene: Thanksgivukkah\_47 Start: 32779, Stop: 32060, Start Num: 50

Candidate Starts for Thanksgivukkah\_47:

(Start: 50 @32779 has 202 MA's), (119, 32551), (125, 32503), (137, 32428), (145, 32407), (147, 32404), (206, 32308), (216, 32254), (219, 32242), (223, 32227), (225, 32221),

Gene: Theia\_39 Start: 31764, Stop: 31045, Start Num: 50

Candidate Starts for Theia\_39:

(Start: 50 @31764 has 202 MA's), (77, 31710), (90, 31686), (103, 31662), (120, 31530), (147, 31386), (208, 31287), (219, 31224), (223, 31209), (228, 31173), (239, 31116),

Gene: Tiffany\_52 Start: 33092, Stop: 32385, Start Num: 45

Candidate Starts for Tiffany\_52:

(Start: 45 @33092 has 334 MA's), (118, 32900), (130, 32795), (137, 32762), (219, 32567), (223, 32552),

Gene: Tiger\_40 Start: 31297, Stop: 30578, Start Num: 50

Candidate Starts for Tiger\_40:

(Start: 50 @31297 has 202 MA's), (77, 31243), (90, 31219), (103, 31195), (120, 31063), (147, 30919), (208, 30820), (219, 30757), (223, 30742), (228, 30706), (239, 30649),

Gene: Timothy\_49 Start: 32163, Stop: 31450, Start Num: 45

Candidate Starts for Timothy\_49:

(Start: 45 @32163 has 334 MA's), (77, 32112), (125, 31890), (130, 31848), (195, 31707), (213, 31677), (216, 31641), (217, 31638), (219, 31629), (223, 31614), (225, 31608), (240, 31518),

Gene: TinaFeyge\_48 Start: 32776, Stop: 32057, Start Num: 50

Candidate Starts for TinaFeyge\_48:

(Start: 50 @32776 has 202 MA's), (119, 32548), (125, 32500), (137, 32425), (145, 32404), (147, 32401), (206, 32305), (216, 32251), (217, 32248), (219, 32239), (223, 32224), (225, 32218),

Gene: TinyPebbles\_51 Start: 33239, Stop: 32532, Start Num: 45

Candidate Starts for TinyPebbles\_51:

(Start: 45 @33239 has 334 MA's), (118, 33047), (219, 32714), (223, 32699),

Gene: TinyTimmy\_49 Start: 32206, Stop: 31493, Start Num: 45

Candidate Starts for TinyTimmy\_49:

(Start: 45 @32206 has 334 MA's), (77, 32155), (125, 31933), (130, 31891), (195, 31750), (213, 31720), (216, 31684), (219, 31672), (223, 31657), (225, 31651), (240, 31561),

Gene: Tinybot\_47 Start: 32808, Stop: 32089, Start Num: 50

Candidate Starts for Tinybot\_47:

(Start: 50 @32808 has 202 MA's), (119, 32580), (125, 32532), (137, 32457), (145, 32436), (147, 32433), (206, 32337), (216, 32283), (219, 32271), (223, 32256), (225, 32250),

Gene: TipsytheTRex\_45 Start: 32262, Stop: 31537, Start Num: 45

Candidate Starts for TopsytheTRex\_45:

(Start: 45 @32262 has 334 MA's), (119, 32031), (125, 31983), (132, 31923), (208, 31782), (219, 31719), (223, 31704),

Gene: TiroTheta9\_48 Start: 32775, Stop: 32056, Start Num: 50

Candidate Starts for TiroTheta9\_48:

(Start: 50 @32775 has 202 MA's), (119, 32547), (125, 32499), (137, 32424), (145, 32403), (147, 32400), (206, 32304), (216, 32250), (219, 32238), (223, 32223), (225, 32217),

Gene: Toaka\_49 Start: 32819, Stop: 32118, Start Num: 45

Candidate Starts for Toaka\_49:

(Start: 45 @32819 has 334 MA's), (118, 32624), (119, 32609), (125, 32561), (130, 32519), (135, 32492), (150, 32453), (162, 32432), (198, 32375), (219, 32300), (223, 32285), (228, 32249),

Gene: Todacoro\_48 Start: 33068, Stop: 32286, Start Num: 33

Candidate Starts for Todacoro\_48:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: Tomathan\_51 Start: 32822, Stop: 32115, Start Num: 45

Candidate Starts for Tomathan\_51:

(Start: 45 @32822 has 334 MA's), (118, 32627), (119, 32612), (130, 32522), (131, 32519), (141, 32477), (219, 32303), (223, 32288), (240, 32192),

Gene: ToneTone\_48 Start: 31800, Stop: 31072, Start Num: 45

Candidate Starts for ToneTone\_48:

(Start: 45 @31800 has 334 MA's), (74, 31755), (119, 31563), (125, 31515), (130, 31473), (131, 31470), (155, 31404), (180, 31368), (210, 31317), (213, 31308), (219, 31260), (223, 31245), (241, 31146),

Gene: Topanga\_45 Start: 32437, Stop: 31700, Start Num: 44

Candidate Starts for Topanga\_45:

(Start: 44 @32437 has 13 MA's), (Start: 50 @32431 has 202 MA's), (119, 32191), (125, 32143), (130, 32101), (131, 32098), (158, 32029), (175, 31996), (206, 31948), (219, 31882), (223, 31867), (225, 31861), (228, 31831), (240, 31771),

Gene: Toro\_51 Start: 35123, Stop: 34428, Start Num: 50

Candidate Starts for Toro\_51:

(Start: 50 @35123 has 202 MA's), (72, 35081), (75, 35075), (119, 34919), (137, 34796), (160, 34748), (173, 34727), (188, 34700), (219, 34610), (223, 34595), (247, 34481),

Gene: Travvers\_51 Start: 32822, Stop: 32115, Start Num: 45

Candidate Starts for Travvers\_51:

(Start: 45 @32822 has 334 MA's), (118, 32627), (119, 32612), (130, 32522), (131, 32519), (141, 32477), (219, 32303), (223, 32288), (240, 32192),

Gene: Trike\_45 Start: 31697, Stop: 30969, Start Num: 44

Candidate Starts for Trike\_45:

(Start: 44 @31697 has 13 MA's), (Start: 50 @31691 has 202 MA's), (117, 31481), (119, 31460), (125, 31412), (130, 31370), (131, 31367), (139, 31331), (150, 31304), (219, 31151), (223, 31136), (240, 31040),

Gene: Tristan\_48 Start: 34070, Stop: 33345, Start Num: 45

Candidate Starts for Tristan\_48:

(Start: 45 @34070 has 334 MA's), (74, 34025), (119, 33836), (125, 33788), (130, 33746), (131, 33743), (213, 33575), (216, 33539), (219, 33527), (223, 33512),

Gene: Trixie\_47 Start: 33165, Stop: 32434, Start Num: 45

Candidate Starts for Trixie\_47:

(Start: 45 @33165 has 334 MA's), (74, 33120), (119, 32931), (125, 32883), (130, 32841), (131, 32838), (145, 32787), (213, 32670), (219, 32622), (223, 32607),

Gene: Trooper\_50 Start: 33465, Stop: 32737, Start Num: 45

Candidate Starts for Trooper\_50:

(Start: 45 @33465 has 334 MA's), (119, 33228), (125, 33180), (130, 33138), (131, 33135), (213, 32967), (219, 32919), (223, 32904), (225, 32898), (240, 32808),

Gene: TroyPia\_49 Start: 32779, Stop: 32060, Start Num: 50

Candidate Starts for TroyPia\_49:

(Start: 50 @32779 has 202 MA's), (119, 32551), (125, 32503), (137, 32428), (145, 32407), (147, 32404), (206, 32308), (216, 32254), (219, 32242), (223, 32227), (225, 32221),

Gene: Tubs\_49 Start: 33024, Stop: 32320, Start Num: 45

Candidate Starts for Tubs\_49:

(Start: 45 @33024 has 334 MA's), (74, 32979), (75, 32976), (77, 32973), (118, 32832), (119, 32817), (125, 32769), (130, 32727), (219, 32508), (223, 32493),

Gene: Tucker\_51 Start: 31669, Stop: 30959, Start Num: 62

Candidate Starts for Tucker\_51:

(Start: 62 @31669 has 2 MA's), (118, 31474), (125, 31411), (131, 31366), (132, 31351), (150, 31300), (219, 31147), (223, 31132), (225, 31126), (241, 31033),

Gene: Turbido\_50 Start: 33493, Stop: 32768, Start Num: 45

Candidate Starts for Turbido\_50:

(Start: 45 @33493 has 334 MA's), (119, 33259), (130, 33169), (131, 33166), (175, 33064), (213, 32998), (219, 32950), (223, 32935), (225, 32929),

Gene: Twigg\_42 Start: 31932, Stop: 31219, Start Num: 50

Candidate Starts for Twigg\_42:

(Start: 50 @31932 has 202 MA's), (74, 31884), (90, 31854), (127, 31641), (131, 31608), (155, 31542), (176, 31506), (209, 31455), (212, 31446), (219, 31398), (223, 31383), (228, 31347), (239, 31290),

Gene: Twister\_45 Start: 32342, Stop: 31611, Start Num: 50

Candidate Starts for Twister\_45:

(Start: 44 @32348 has 13 MA's), (Start: 50 @32342 has 202 MA's), (119, 32102), (125, 32054), (130, 32012), (131, 32009), (158, 31940), (175, 31907), (206, 31859), (219, 31793), (223, 31778), (225, 31772), (228, 31742), (240, 31682),

Gene: TygerBlood\_48 Start: 32781, Stop: 32062, Start Num: 50

Candidate Starts for TygerBlood\_48:

(Start: 50 @32781 has 202 MA's), (119, 32553), (125, 32505), (137, 32430), (145, 32409), (147, 32406), (206, 32310), (216, 32256), (219, 32244), (223, 32229), (225, 32223),

Gene: Ugenie5\_46 Start: 33261, Stop: 32557, Start Num: 45

Candidate Starts for Ugenie5\_46:

(Start: 45 @33261 has 334 MA's), (74, 33216), (75, 33213), (77, 33210), (118, 33069), (119, 33054), (125, 33006), (130, 32964), (219, 32745), (223, 32730),

Gene: UhSalsa\_38 Start: 29171, Stop: 28410, Start Num: 48

Candidate Starts for UhSalsa\_38:

(Start: 27 @29243 has 8 MA's), (Start: 48 @29171 has 36 MA's), (119, 28919), (125, 28871), (132, 28811), (139, 28790), (159, 28739), (191, 28679), (204, 28664), (223, 28577), (226, 28559), (237, 28493), (240, 28481),

Gene: Ulysses\_47 Start: 32458, Stop: 31739, Start Num: 50

Candidate Starts for Ulysses\_47:

(Start: 50 @32458 has 202 MA's), (119, 32230), (125, 32182), (137, 32107), (145, 32086), (147, 32083), (206, 31987), (216, 31933), (219, 31921), (223, 31906), (225, 31900),

Gene: UnionJack\_42 Start: 31250, Stop: 30546, Start Num: 50

Candidate Starts for UnionJack\_42:

(Start: 50 @31250 has 202 MA's), (127, 30974), (130, 30944), (131, 30941), (183, 30827), (219, 30725), (223, 30710), (240, 30614),

Gene: Updawg\_50 Start: 33361, Stop: 32633, Start Num: 45

Candidate Starts for Updawg\_50:

(Start: 45 @33361 has 334 MA's), (119, 33124), (125, 33076), (130, 33034), (131, 33031), (213, 32863), (219, 32815), (223, 32800), (225, 32794),

Gene: VA6\_50 Start: 33457, Stop: 32729, Start Num: 45

Candidate Starts for VA6\_50:

(Start: 45 @33457 has 334 MA's), (119, 33220), (130, 33130), (131, 33127), (145, 33076), (203, 32983), (213, 32959), (219, 32911), (223, 32896), (225, 32890), (240, 32800),

Gene: VC3\_52 Start: 33241, Stop: 32555, Start Num: 45

Candidate Starts for VC3\_52:

(Start: 45 @33241 has 334 MA's), (119, 33031), (131, 32938), (132, 32923), (203, 32815), (213, 32791), (216, 32755), (219, 32743), (223, 32728), (228, 32692), (240, 32632),

Gene: Vanisoa\_49 Start: 33845, Stop: 33144, Start Num: 45

Candidate Starts for Vanisoa\_49:

(Start: 45 @33845 has 334 MA's), (118, 33650), (119, 33635), (125, 33587), (130, 33545), (147, 33488), (150, 33479), (162, 33458), (198, 33401), (219, 33326), (223, 33311),

Gene: Vash\_40 Start: 31693, Stop: 32385, Start Num: 50

Candidate Starts for Vash\_40:

(Start: 50 @31693 has 202 MA's), (75, 31741), (119, 31909), (131, 32005), (223, 32218), (225, 32224), (240, 32314),

Gene: Veracruz\_47 Start: 33068, Stop: 32286, Start Num: 33

Candidate Starts for Veracruz\_47:

(Start: 33 @33068 has 7 MA's), (Start: 45 @33014 has 334 MA's), (70, 32978), (118, 32792), (130, 32687), (174, 32585), (219, 32468), (223, 32453), (240, 32357),

Gene: Vix\_52 Start: 33289, Stop: 32582, Start Num: 45

Candidate Starts for Vix\_52:

(Start: 45 @33289 has 334 MA's), (118, 33097), (130, 32992), (137, 32959), (219, 32764), (223, 32749),

Gene: VohminGhazi\_51 Start: 32086, Stop: 31349, Start Num: 45

Candidate Starts for VohminGhazi\_51:

(Start: 45 @32086 has 334 MA's), (74, 32041), (119, 31849), (132, 31741), (147, 31699), (198, 31612), (219, 31537), (223, 31522), (225, 31516), (241, 31423),

Gene: Waits\_52 Start: 31687, Stop: 30962, Start Num: 49

Candidate Starts for Waits\_52:

(Start: 49 @31687 has 24 MA's), (87, 31609), (92, 31597), (119, 31447), (130, 31357), (131, 31354), (136, 31327), (167, 31270), (219, 31144), (223, 31129),

Gene: WalterMcMickey\_45 Start: 32348, Stop: 31611, Start Num: 44

Candidate Starts for WalterMcMickey\_45:

(Start: 44 @32348 has 13 MA's), (Start: 50 @32342 has 202 MA's), (119, 32102), (125, 32054), (130, 32012), (131, 32009), (158, 31940), (175, 31907), (206, 31859), (219, 31793), (223, 31778), (225, 31772), (228, 31742), (240, 31682),

Gene: Wander\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Wander\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Warrior24\_53 Start: 31900, Stop: 31172, Start Num: 49

Candidate Starts for Warrior24\_53:

(Start: 49 @31900 has 24 MA's), (94, 31810), (119, 31654), (130, 31564), (165, 31483), (219, 31354), (223, 31339),

Gene: Watson\_52 Start: 33198, Stop: 32491, Start Num: 45

Candidate Starts for Watson\_52:

(Start: 45 @33198 has 334 MA's), (118, 33006), (130, 32901), (137, 32868), (219, 32673), (223, 32658),

Gene: WeiHuaDA\_51 Start: 34006, Stop: 33275, Start Num: 45

Candidate Starts for WeiHuaDA\_51:

(Start: 45 @34006 has 334 MA's), (66, 33976), (74, 33961), (119, 33772), (125, 33724), (130, 33682), (131, 33679), (145, 33628), (213, 33511), (219, 33463), (223, 33448), (228, 33412),

Gene: Whabigail7\_50 Start: 33478, Stop: 32753, Start Num: 45

Candidate Starts for Whabigail7\_50:

(Start: 45 @33478 has 334 MA's), (119, 33244), (130, 33154), (131, 33151), (175, 33049), (213, 32983), (219, 32935), (223, 32920), (225, 32914),

Gene: WideWale\_50 Start: 33361, Stop: 32633, Start Num: 45

Candidate Starts for WideWale\_50:

(Start: 45 @33361 has 334 MA's), (119, 33124), (125, 33076), (130, 33034), (131, 33031), (213, 32863), (219, 32815), (223, 32800), (225, 32794),

Gene: Wiks\_50 Start: 31868, Stop: 31140, Start Num: 45

Candidate Starts for Wiks\_50:

(Start: 45 @31868 has 334 MA's), (74, 31823), (119, 31631), (125, 31583), (130, 31541), (131, 31538), (155, 31472), (180, 31436), (210, 31385), (213, 31376), (219, 31328), (223, 31313), (241, 31214),

Gene: Wilbur\_48 Start: 32778, Stop: 32059, Start Num: 50

Candidate Starts for Wilbur\_48:

(Start: 50 @32778 has 202 MA's), (119, 32550), (125, 32502), (137, 32427), (145, 32406), (147, 32403), (206, 32307), (216, 32253), (219, 32241), (223, 32226), (225, 32220),

Gene: Wile\_47 Start: 32788, Stop: 32069, Start Num: 50

Candidate Starts for Wile\_47:

(Start: 50 @32788 has 202 MA's), (119, 32560), (125, 32512), (131, 32467), (145, 32416), (147, 32413), (148, 32410), (206, 32317), (213, 32299), (219, 32251), (223, 32236),

Gene: Wizard007\_48 Start: 32786, Stop: 32067, Start Num: 50

Candidate Starts for Wizard007\_48:

(Start: 50 @32786 has 202 MA's), (125, 32510), (137, 32435), (145, 32414), (147, 32411), (206, 32315), (216, 32261), (219, 32249), (223, 32234), (225, 32228),

Gene: Wolpertinger\_48 Start: 32138, Stop: 31476, Start Num: 77

Candidate Starts for Wolpertinger\_48:

(Start: 45 @32189 has 334 MA's), (77, 32138), (125, 31916), (130, 31874), (195, 31733), (213, 31703), (216, 31667), (219, 31655), (223, 31640), (225, 31634), (240, 31544),

Gene: Wooldri\_54 Start: 33118, Stop: 32411, Start Num: 45

Candidate Starts for Wooldri\_54:

(Start: 45 @33118 has 334 MA's), (118, 32926), (130, 32821), (137, 32788), (219, 32593), (223, 32578),

Gene: WorldCup\_48 Start: 32551, Stop: 31850, Start Num: 45

Candidate Starts for WorldCup\_48:

(Start: 45 @32551 has 334 MA's), (119, 32341), (125, 32293), (130, 32251), (135, 32224), (147, 32194), (150, 32185), (162, 32164), (198, 32107), (213, 32080), (219, 32032), (223, 32017),

Gene: WunderPhul\_51 Start: 31866, Stop: 31138, Start Num: 45

Candidate Starts for WunderPhul\_51:

(Start: 45 @31866 has 334 MA's), (74, 31821), (119, 31629), (125, 31581), (130, 31539), (131, 31536), (155, 31470), (180, 31434), (210, 31383), (213, 31374), (219, 31326), (223, 31311), (241, 31212),

Gene: Xena\_46 Start: 32754, Stop: 32035, Start Num: 50

Candidate Starts for Xena\_46:

(Start: 50 @32754 has 202 MA's), (119, 32526), (125, 32478), (131, 32433), (145, 32382), (147, 32379), (148, 32376), (206, 32283), (213, 32265), (219, 32217), (223, 32202),

Gene: XianYue\_48 Start: 32830, Stop: 32096, Start Num: 45

Candidate Starts for XianYue\_48:

(Start: 45 @32830 has 334 MA's), (119, 32593), (125, 32545), (130, 32503), (131, 32500), (135, 32476), (198, 32359), (203, 32356), (213, 32332), (219, 32284), (223, 32269), (225, 32263), (240, 32173),

Gene: Yecey3\_50 Start: 32497, Stop: 31787, Start Num: 45

Candidate Starts for Yecey3\_50:

(Start: 45 @32497 has 334 MA's), (74, 32452), (119, 32284), (130, 32194), (198, 32050), (219, 31975), (223, 31960),

Gene: YoSam321\_48 Start: 32775, Stop: 32056, Start Num: 50

Candidate Starts for YoSam321\_48:

(Start: 50 @32775 has 202 MA's), (119, 32547), (125, 32499), (137, 32424), (145, 32403), (147, 32400), (206, 32304), (216, 32250), (219, 32238), (223, 32223), (225, 32217),

Gene: Yogi\_38 Start: 29144, Stop: 28383, Start Num: 48

Candidate Starts for Yogi\_38:

(Start: 27 @29216 has 8 MA's), (Start: 48 @29144 has 36 MA's), (125, 28844), (132, 28784), (139, 28763), (159, 28712), (191, 28652), (204, 28637), (223, 28550), (226, 28532), (237, 28466), (240, 28454),

Gene: Yokurt\_51 Start: 31868, Stop: 31140, Start Num: 45

Candidate Starts for Yokurt\_51:

(Start: 45 @31868 has 334 MA's), (74, 31823), (119, 31631), (125, 31583), (130, 31541), (131, 31538), (155, 31472), (180, 31436), (210, 31385), (213, 31376), (219, 31328), (223, 31313), (241, 31214),

Gene: Yoncess\_38 Start: 29145, Stop: 28384, Start Num: 48

Candidate Starts for Yoncess\_38:

(Start: 27 @29217 has 8 MA's), (Start: 48 @29145 has 36 MA's), (119, 28893), (125, 28845), (132, 28785), (139, 28764), (159, 28713), (191, 28653), (204, 28638), (223, 28551), (226, 28533), (237, 28467), (240, 28455),

Gene: Yvonnetastic\_110 Start: 62558, Stop: 63304, Start Num: 55

Candidate Starts for Yvonnetastic\_110:

(Start: 55 @62558 has 5 MA's), (59, 62564), (Start: 68 @62576 has 6 MA's), (72, 62585), (74, 62591), (89, 62624), (104, 62675), (109, 62708), (124, 62837), (128, 62864), (132, 62909), (141, 62924), (143, 62933), (170, 62975), (208, 63035), (213, 63047), (225, 63116), (227, 63140), (239, 63203), (250, 63239), (256, 63290),

Gene: Zaka\_51 Start: 31868, Stop: 31140, Start Num: 45

Candidate Starts for Zaka\_51:

(Start: 45 @31868 has 334 MA's), (74, 31823), (119, 31631), (125, 31583), (130, 31541), (131, 31538), (155, 31472), (180, 31436), (210, 31385), (213, 31376), (219, 31328), (223, 31313), (241, 31214),

Gene: Zarafa\_49 Start: 32966, Stop: 32238, Start Num: 45

Candidate Starts for Zarafa\_49:

(Start: 45 @32966 has 334 MA's), (70, 32930), (111, 32786), (118, 32744), (130, 32639), (131, 32636), (174, 32537), (219, 32420), (223, 32405), (225, 32399),

Gene: Zetzy\_51 Start: 32769, Stop: 32062, Start Num: 45

Candidate Starts for Zetzy\_51:

(Start: 45 @32769 has 334 MA's), (118, 32577), (130, 32472), (137, 32439), (219, 32244), (223, 32229),

Gene: Zimmer\_46 Start: 33726, Stop: 33022, Start Num: 45

Candidate Starts for Zimmer\_46:

(Start: 45 @33726 has 334 MA's), (118, 33534), (119, 33519), (131, 33426), (216, 33222), (219, 33210), (223, 33195), (225, 33189), (228, 33159),

Gene: Zion\_9 Start: 4717, Stop: 5490, Start Num: 48

Candidate Starts for Zion\_9:

(Start: 48 @4717 has 36 MA's), (51, 4729), (69, 4753), (76, 4771), (122, 4993), (132, 5077), (133, 5080), (179, 5161), (217, 5257), (222, 5275), (223, 5281), (226, 5299), (227, 5311), (245, 5389), (249, 5401),

Gene: Zolita\_42 Start: 32493, Stop: 31774, Start Num: 50

Candidate Starts for Zolita\_42:

(Start: 50 @32493 has 202 MA's), (74, 32445), (118, 32277), (131, 32169), (216, 31965), (219, 31953),  
(223, 31938), (228, 31902), (239, 31845),

Gene: Zulu\_51 Start: 31650, Stop: 30940, Start Num: 62

Candidate Starts for Zulu\_51:

(Start: 62 @31650 has 2 MA's), (118, 31455), (125, 31392), (131, 31347), (132, 31332), (150, 31281),  
(219, 31128), (223, 31113), (225, 31107), (241, 31014),