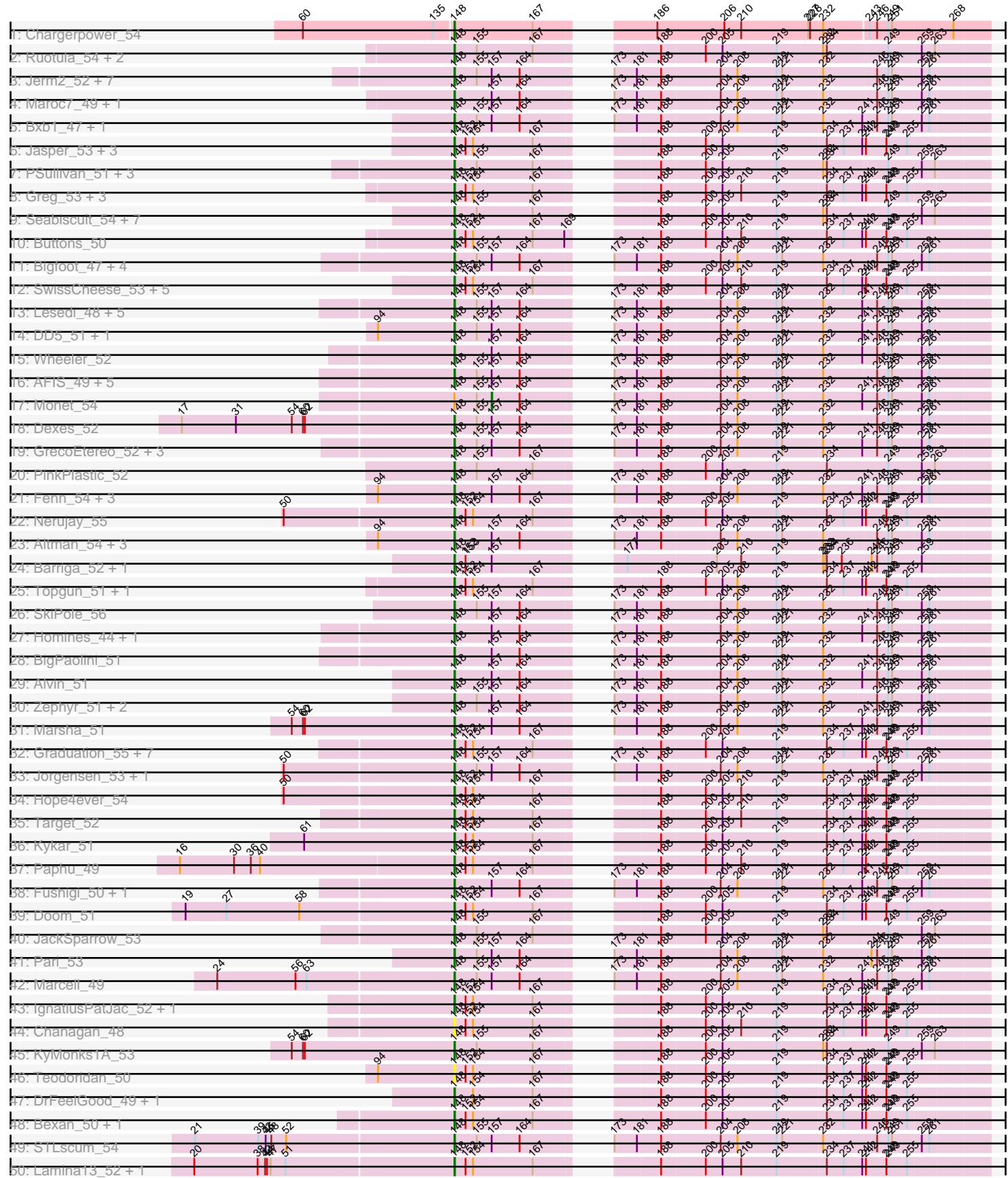
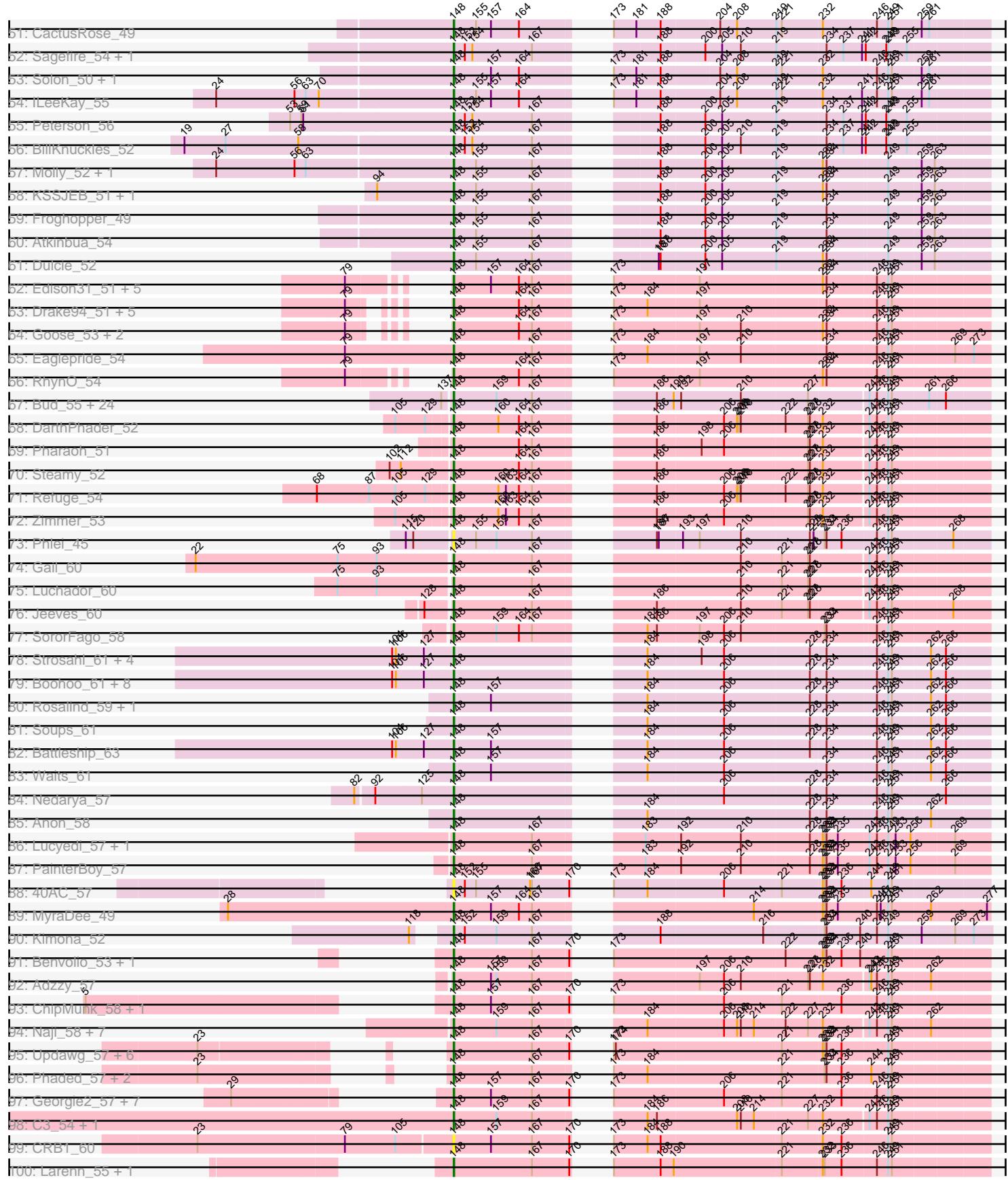


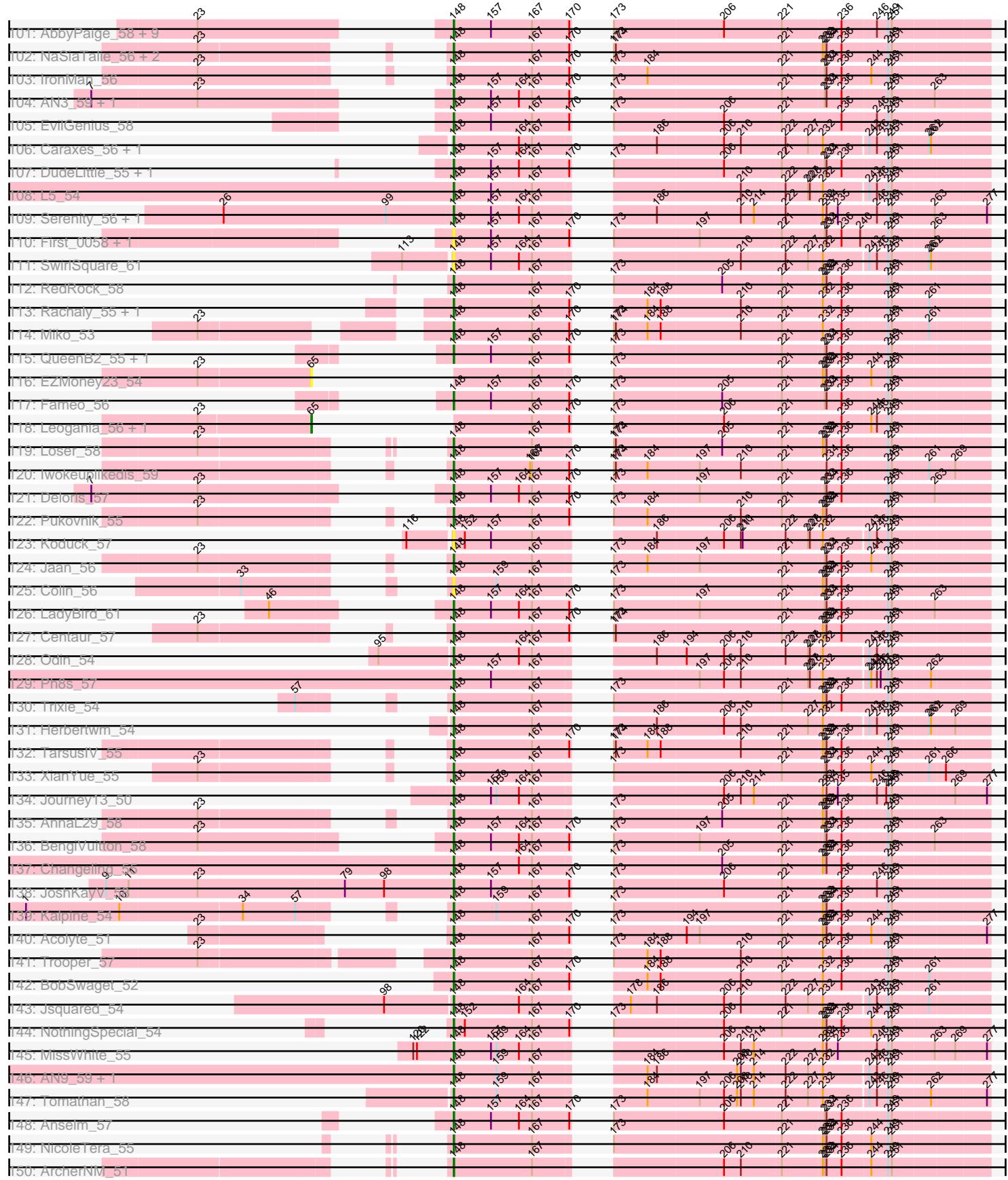
# Pham 84608



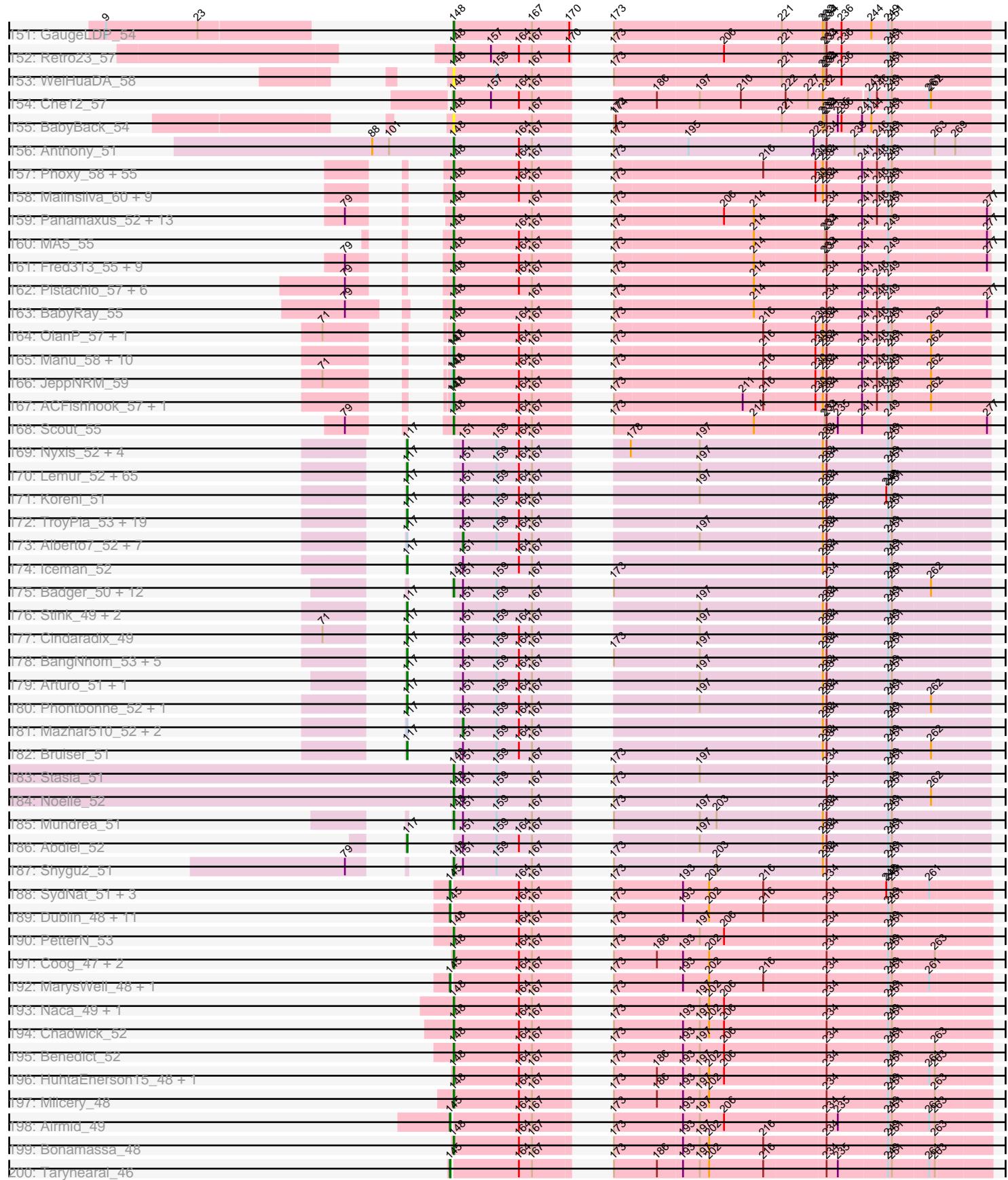
# Pham 84608



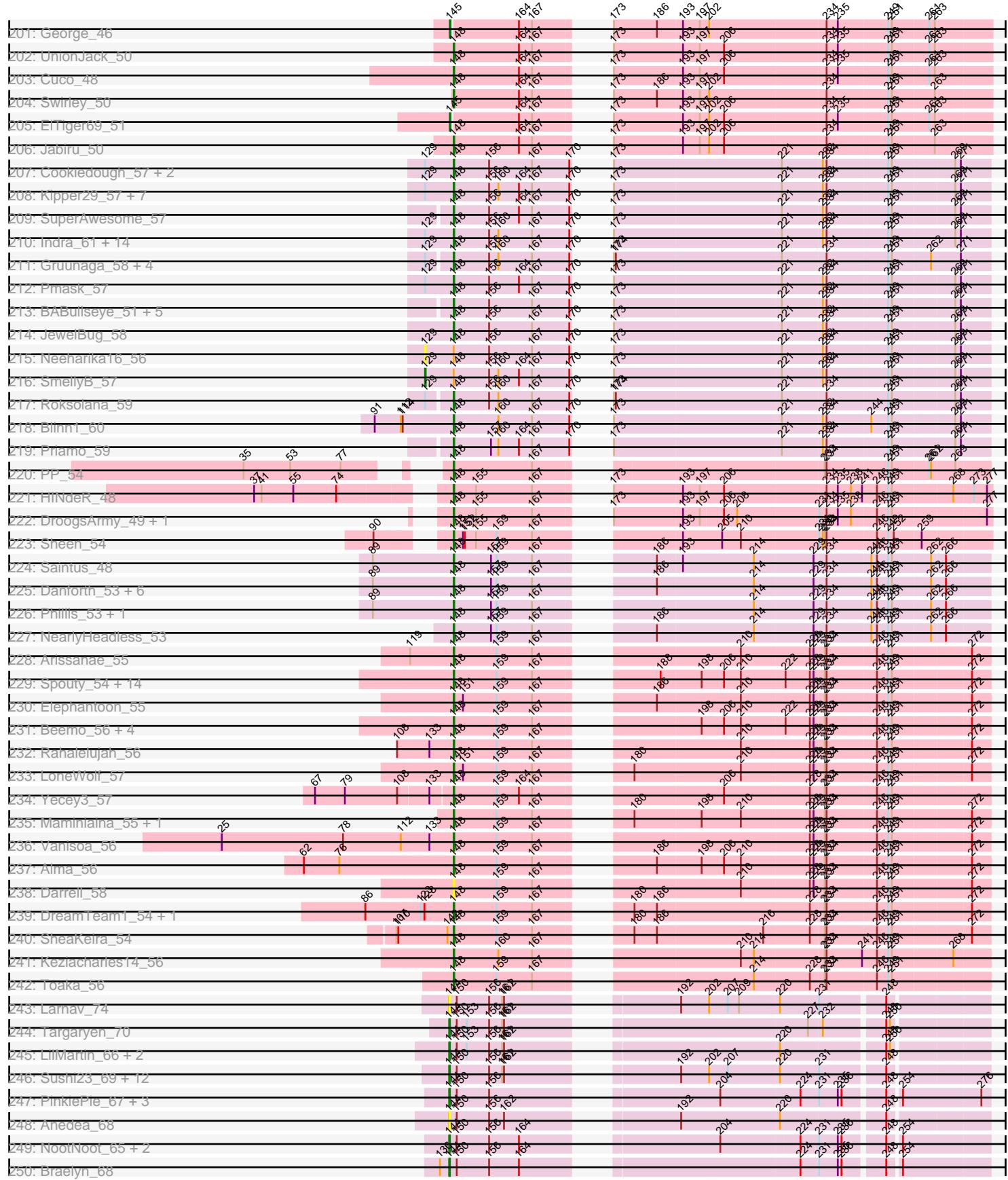
# Pham 84608



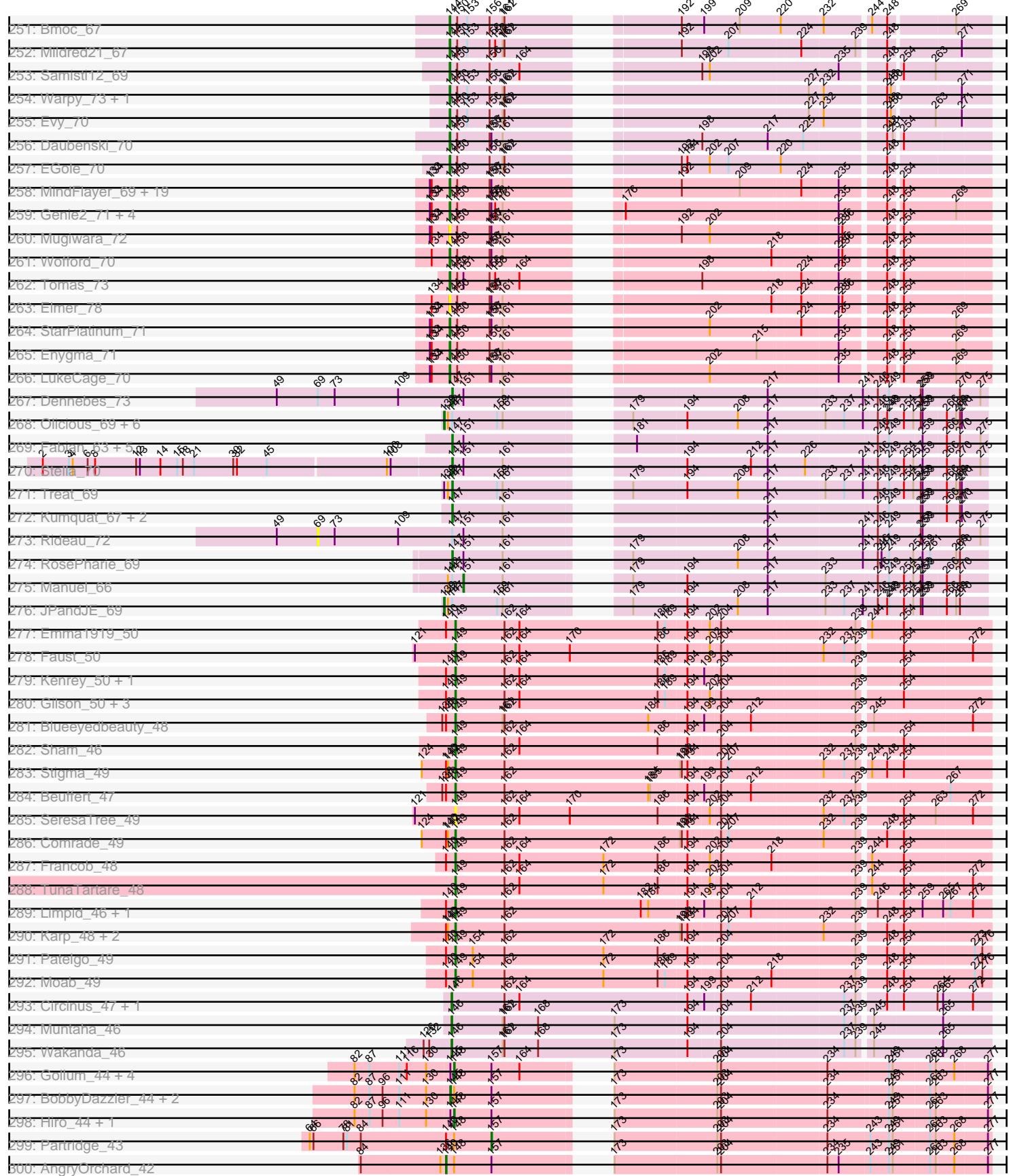
Pham 84608



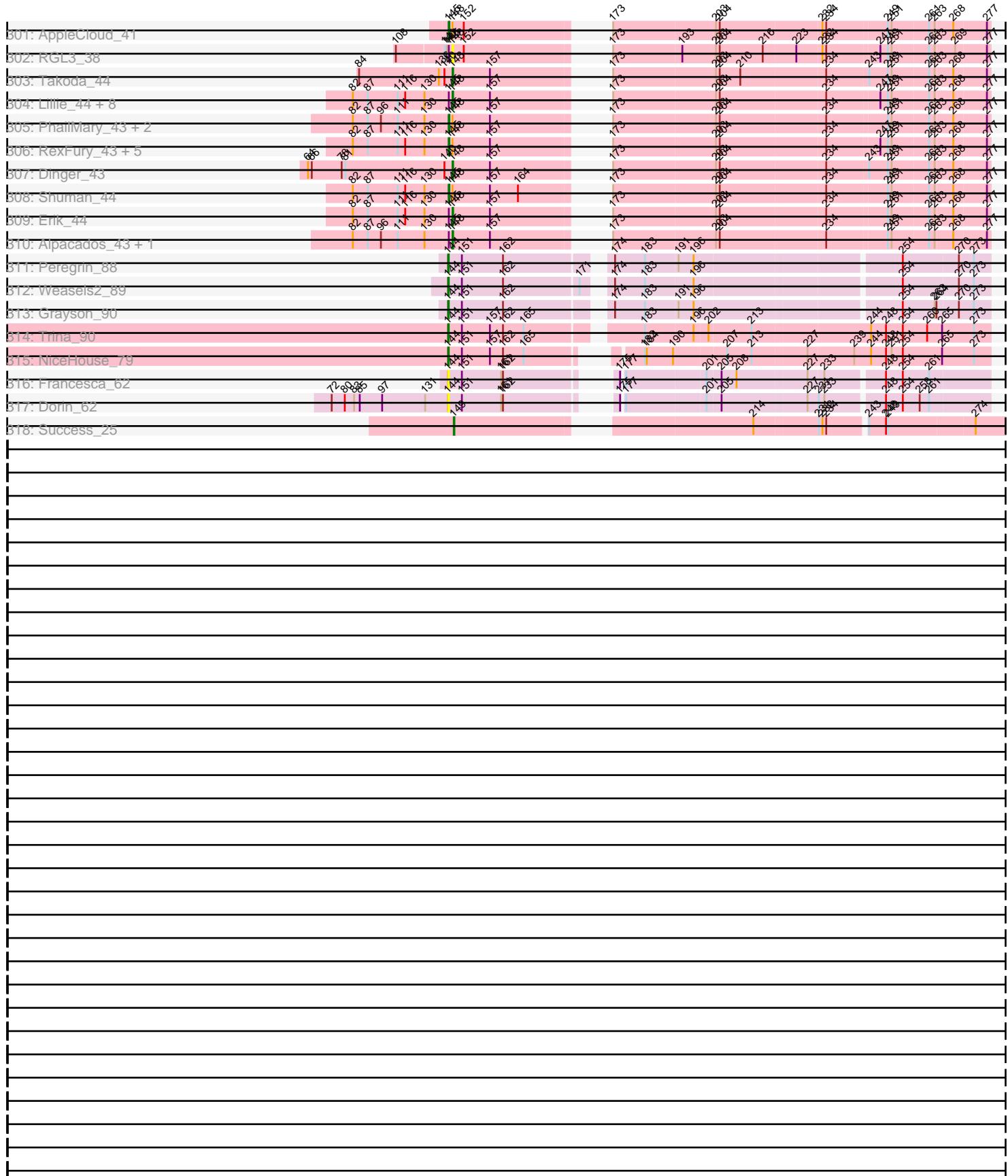
# Pham 84608



# Pham 84608



Pham 84608



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 84608 Report

This analysis was run 03/08/24 on database version 553.

Pham number 84608 has 880 members, 68 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_54
- Track 2 : Ruotula\_54, Marge\_51, Hermia\_51
- Track 3 : Jerm2\_52, Rohr\_52, Bob3\_49, Arlo\_49, MPlant7149\_50, HermioneGrange\_51, Rufus\_52, BigMau\_52
- Track 4 : Maroc7\_49, Fascinus\_47
- Track 5 : Bxb1\_47, Dynamix\_53
- Track 6 : Jasper\_53, PherrisBueller\_51, Dreamboat\_53, Scowl\_52
- Track 7 : PSullivan\_51, Pita2\_54, Sibs6\_53, TwoPeat\_51
- Track 8 : Greg\_53, Pippin\_53, Fajezeel\_53, Ciao\_51
- Track 9 : Seabiscuit\_54, Papez\_54, DreamCatcher\_55, McGuire\_53, Swole\_52, JuliaChild\_52, Tote\_47, Acme\_53
- Track 10 : Buttons\_50
- Track 11 : Bigfoot\_47, A6\_47, BK1\_47, Rubeus\_51, Parliament\_51
- Track 12 : SwissCheese\_53, Bruns\_50, Smeagol\_53, Moose\_51, Forsytheast\_51, Ohno789\_53
- Track 13 : Lesedi\_48, Michley\_51, Edtherson\_51, Crispicous1\_49, Petruchio\_51, Treddle\_52
- Track 14 : DD5\_51, Lockley\_50
- Track 15 : Wheeler\_52
- Track 16 : AFIS\_49, Beatrix\_51, Carlyle\_50, SpikeBT\_51, Rhynn\_50, Makemake\_51
- Track 17 : Monet\_54
- Track 18 : Dexes\_52
- Track 19 : GrecoEtereo\_52, Snazzy\_50, StewieG\_50, HarryOW\_50
- Track 20 : PinkPlastic\_52
- Track 21 : Fenn\_54, Naira\_54, Traft412\_54, Squee\_52
- Track 22 : Nerujay\_55
- Track 23 : Altman\_54, Thor\_49, Kanely\_53, SarFire\_49
- Track 24 : Barriga\_52, Sunshine924\_53
- Track 25 : Topgun\_51, Wilkins\_51
- Track 26 : SkiPole\_56
- Track 27 : Homines\_44, Watermelon\_52
- Track 28 : BigPaolini\_51
- Track 29 : Alvin\_51
- Track 30 : Zephyr\_51, Alsfro\_55, BeesKnees\_54
- Track 31 : Marsha\_51

- Track 32 : Graduation\_55, JC27\_53, Magnar\_51, Ashballer\_53, Pelly\_51, Bones\_52, Eyeball\_53, Cueylyss\_53
- Track 33 : Jorgensen\_53, QTRlifeCrisis\_55
- Track 34 : Hope4ever\_54
- Track 35 : Target\_52
- Track 36 : Kykar\_51
- Track 37 : Paphu\_49
- Track 38 : Fushigi\_50, Rutherford\_53
- Track 39 : Doom\_51
- Track 40 : JackSparrow\_53
- Track 41 : Pari\_53
- Track 42 : Marcell\_49
- Track 43 : IgnatiusPatJac\_52, BluSpix\_51
- Track 44 : Chanagan\_48
- Track 45 : KyMonks1A\_53
- Track 46 : Teodoridan\_50
- Track 47 : DrFeelGood\_49, Trouble\_54
- Track 48 : Bexan\_50, StrongArm\_51
- Track 49 : STLscum\_54
- Track 50 : Lamina13\_52, Tasp14\_53
- Track 51 : CactusRose\_49
- Track 52 : Sagefire\_54, Gwendoluna\_56
- Track 53 : Solon\_50, Gyzlar\_47
- Track 54 : ILeekKay\_55
- Track 55 : Peterson\_56
- Track 56 : BillKnuckles\_52
- Track 57 : Molly\_52, Petp2012\_52
- Track 58 : KSSJEB\_51, Briton15\_55
- Track 59 : Froghopper\_49
- Track 60 : Atkinbua\_54
- Track 61 : Dulcie\_52
- Track 62 : Edison31\_51, Twister\_51, Topanga\_51, WalterMcMickey\_51, Kristoff\_53, Rebeuca\_53
- Track 63 : Drake94\_51, Trike\_51, Poompha\_52, Severus\_51, PeaceMeal1\_51, KittenMittens\_50
- Track 64 : Goose\_53, OKCentral2016\_52, Chupacabra\_52
- Track 65 : Eaglepride\_54
- Track 66 : RhynO\_54
- Track 67 : Bud\_55, Mulciber\_55, Hutc2\_55, Jabith\_56, Flaverint\_56, Salz\_54, Joselito\_56, Orange\_55, Insomnia\_55, TinyTimmy\_54, Et2Brutus\_54, Ebony\_55, Fibonacci\_55, Bowtie\_56, MaCh\_56, Bachome\_57, Sham4\_55, Snape\_55, Mabel\_55, Munch\_56, Timothy\_55, Aneem\_56, Lucivia\_56, Petersenfast\_54, Gilberta\_56
- Track 68 : DarthPhader\_52
- Track 69 : Pharaoh\_51
- Track 70 : Steamy\_52
- Track 71 : Refuge\_54
- Track 72 : Zimmer\_53
- Track 73 : Phlei\_45
- Track 74 : Gail\_60
- Track 75 : Luchador\_60
- Track 76 : Jeeves\_60
- Track 77 : SororFago\_58

- Track 78 : Strosahl\_61, JSwag\_60, DekHockey33\_62, Remus\_61, Epsocamisio\_58
- Track 79 : Boohoo\_61, KatherineG\_61, LastResort\_59, ShayRa\_61, Nebulosus\_59, Looper\_60, Anaysia\_61, Switzerland\_60, ReMo\_59
- Track 80 : Rosalind\_59, MinecraftSteve\_61
- Track 81 : Soups\_61
- Track 82 : Battleship\_63
- Track 83 : Waits\_61
- Track 84 : Nedarya\_57
- Track 85 : Anon\_58
- Track 86 : Lucyedi\_57, EagleEye\_58
- Track 87 : PainterBoy\_57
- Track 88 : 40AC\_57
- Track 89 : MyraDee\_49
- Track 90 : Kimona\_52
- Track 91 : Benvolio\_53, Echild\_56
- Track 92 : Adzzy\_57
- Track 93 : ChipMunk\_58, KingCyrus\_58
- Track 94 : Naji\_58, Duplo\_58, DBQu4n\_58, Pomar16\_58, Kerberos\_58, StarStuff\_58, D32\_57, D29\_54
- Track 95 : Updawg\_57, HarryHoudini\_57, Equemioh13\_57, WideWale\_57, Drake55\_58, Baehexic\_55, Piro94\_56
- Track 96 : Phaded\_57, Landor\_57, Bactobuster\_55
- Track 97 : Georgie2\_57, FiringLine\_56, Power\_55, SweetiePie\_56, SemperFi\_57, SnapTap\_56, Crucio\_56, QueenBeesly\_56
- Track 98 : C3\_54, VC3\_59
- Track 99 : CRB1\_60
- Track 100 : Larenn\_55, Malec\_56
- Track 101 : AbbyPaige\_58, Jerm\_58, Bugsy\_58, Smeagan\_59, Dignity\_58, Whabigail7\_57, Leviathan\_58, Agape74\_58, LilTurb\_57, Turbido\_57
- Track 102 : NaSiaTalie\_56, Flare16\_56, MiculUcigas\_56
- Track 103 : IronMan\_56
- Track 104 : AN3\_59, VA6\_57
- Track 105 : EvilGenius\_58
- Track 106 : Caraxes\_56, Superchunk\_54
- Track 107 : DudeLittle\_55, Dalmatian\_57
- Track 108 : L5\_54
- Track 109 : Serenity\_56, TipsytheTRex\_52
- Track 110 : First\_0058, 20ES\_59
- Track 111 : SwirlSquare\_61
- Track 112 : RedRock\_58
- Track 113 : Rachaly\_55, Lokk\_53
- Track 114 : Miko\_53
- Track 115 : QueenB2\_55, Heffalump\_55
- Track 116 : EZMoney23\_54
- Track 117 : Fameo\_56
- Track 118 : Leogania\_56, BiancaTri92\_56
- Track 119 : Loser\_58
- Track 120 : Iwokeuplikedis\_59
- Track 121 : Deloris\_57
- Track 122 : Pukovník\_55
- Track 123 : Koduck\_57
- Track 124 : Jaan\_56
- Track 125 : Colin\_56

- Track 126 : LadyBird\_61
- Track 127 : Centaur\_57
- Track 128 : Odin\_54
- Track 129 : Ph8s\_57
- Track 130 : Trixie\_54
- Track 131 : Herbertwm\_54
- Track 132 : TarsusIV\_55
- Track 133 : XianYue\_55
- Track 134 : Journey13\_50
- Track 135 : AnnaL29\_58
- Track 136 : BengiVuitton\_58
- Track 137 : Changeling\_55
- Track 138 : JoshKayV\_58
- Track 139 : Kalpine\_54
- Track 140 : Acolyte\_51
- Track 141 : Trooper\_57
- Track 142 : BobSwaget\_52
- Track 143 : Jsquared\_54
- Track 144 : NothingSpecial\_54
- Track 145 : MissWhite\_55
- Track 146 : AN9\_59, ANI8\_59
- Track 147 : Tomathan\_58
- Track 148 : Anselm\_57
- Track 149 : NicoleTera\_55
- Track 150 : ArcherNM\_51
- Track 151 : GaugeLDP\_54
- Track 152 : Retro23\_57
- Track 153 : WeiHuaDA\_58
- Track 154 : Che12\_57
- Track 155 : BabyBack\_54
- Track 156 : Anthony\_51
- Track 157 : Phoxy\_58, Wooldri\_60, Hercules11\_58, Farber\_58, SoilDragon\_58, Spike509\_58, Fernando\_58, Sabia\_58, StepMih\_58, MadMarie\_58, Beauxregard13\_58, Anubis\_61, Sabinator\_57, LugYA\_61, Bxz2\_54, LarryKay\_58, Ollie\_58, AgronaGT15\_57, Methuselah\_54, Jobu08\_57, SoYo\_58, Vix\_58, GtownJaz\_58, Tiffany\_58, BreSam8\_58, MoneyMay\_58, KADY\_58, HashRod\_59, Marie\_58, BuzzBuzz\_56, PotatoSplit\_60, Misomonster\_59, Daishi\_57, Phoebe\_59, P28Green\_59, Dieselweasel\_59, Zetzy\_57, Taurus\_59, Snickers\_58, JHC117\_58, Penny1\_59, Grif\_58, Colbster\_58, EpicPhail\_59, MarQuardt\_58, Mainiac\_58, Aglet\_59, GingkoMaracino\_58, Grum1\_58, LBerry\_59, Soshari\_60, Stagni\_58, Rummer\_57, JenCasNa\_59, Louie6\_57, Cullens\_58
- Track 158 : Malinsilva\_60, Lilith\_59, Grub\_58, PGHhamlin\_60, DaHudson\_58, MuchMore\_61, Watson\_58, Microwolf\_58, Pembroke\_58, AugsMagnumOpus\_61
- Track 159 : Panamaxus\_52, Caviar\_54, Noella\_54, ResDef\_55, Lambert1\_54, Hookmount\_54, Texage\_53, Pocahontas\_54, Todacoro\_54, Margo\_54, QuinnKiro\_53, Norbert\_53, Veracruz\_53, Popcicle\_54
- Track 160 : MA5\_55
- Track 161 : Fred313\_55, HelDan\_55, Rockstar\_55, JF4\_53, B1\_50, Phantastic\_56, Heathen\_55, JF2\_53, Isca\_54, MK4\_55
- Track 162 : Pistachio\_57, Giroux\_56, Idleandcovert\_56, BlueBird\_57, TNguyen7\_56, SaturnRing\_56, Puppy\_57
- Track 163 : BabyRay\_55
- Track 164 : OlanP\_57, Gemma\_57

- Track 165 : Manu\_58, Kalb97\_59, HaveUMetTed\_59, PhishRPhriends\_56, Kalnoky\_59, Reba\_58, PurpleHaze\_58, Marius\_59, Groupthink\_59, Heliosoles\_57, Phranny\_59
- Track 166 : JeppNRM\_59
- Track 167 : ACFishhook\_57, Pawn\_58
- Track 168 : Scout\_55
- Track 169 : Nyxis\_52, JetBlade\_52, LeoAvram\_52, Eagle\_52, Polymorphads\_53
- Track 170 : Lemur\_52, Chaph\_52, LittleB\_52, Wizard007\_52, BubbleTrouble\_51, Skipitt\_51, Eurydice\_53, Kremtemulon\_50, Peaches\_52, Florean\_52, Roosevelt\_51, Spino\_51, Dhanush\_52, Pipcraft\_50, NorthStar\_51, Ulysses\_51, Connomayer\_52, HamSlice\_51, Blackmoor\_52, LittleGuy\_52, Clarenza\_51, Citius\_52, Eapen\_52, Sabertooth\_52, OKaNui\_52, Ohfah\_53, Millski\_51, Nebs\_53, Medusa\_52, Commander\_52, TygerBlood\_52, Bartimeaus\_52, Morrow\_53, TiroTheta9\_52, Burger\_50, Albee\_52, Maxo\_53, Flux\_52, Cintron\_51, Hollie\_51, Sparxx\_53, Pumbaa\_52, Lorenzo\_52, YoSam321\_52, Kingmustik0402\_52, LochMonster\_53, Relief\_51, Jaykayelowell\_50, TinaFeyge\_52, BellusTerra\_53, Melvin\_54, Bombshell\_52, Phelipe\_53, Ruin\_52, Iracema64\_53, Wilbur\_52, Shaka\_52, Romney\_52, Camperdownii\_50, Eros\_52, Baby16\_52, Tinybot\_51, Druantia\_52, Broseidon\_52, CentreCat\_52, Kampy\_52
- Track 171 : Koreni\_51
- Track 172 : TroyPia\_53, Phacado\_52, MeeZee\_52, Maverick\_52, KFPoly\_51, Annyong\_52, Funston\_51, Palestino\_51, JoongJeon\_51, Caelakin\_52, Gadost\_52, Avle17\_52, PeterPeter\_52, Eris\_51, Cocoaberry\_52, Wander\_52, ICleared\_52, Nemo27\_52, Thanksgivukkah\_51, Kyee\_52
- Track 173 : Alberto7\_52, DirtyDunning\_51, Taquarus\_52, Obama12\_53, Deano\_51, Lunsford\_53, LappelDuVide\_51, Phighter1804\_52
- Track 174 : Iceman\_52
- Track 175 : Badger\_50, Bumblebee11\_50, Cici\_51, Datway\_51, PetiteSangsue\_51, Morpher26\_51, Wile\_51, Katalie136\_51, Achebe\_50, Xena\_50, Backyardigan\_50, Perplexer\_51, AbbysRanger\_51
- Track 176 : Stink\_49, Miramae\_50, AvatarAhPeg\_50
- Track 177 : Cindaradix\_49
- Track 178 : BangNhom\_53, Cerulean\_53, Happiness\_51, LHTSCC\_54, ChampagnePapi\_54, SheldonCooper\_54
- Track 179 : Arturo\_51, Kratark\_52
- Track 180 : Phontbonne\_52, Scamp\_52
- Track 181 : Mazhar510\_52, NotAPhaseMom\_52, Houdini22\_52
- Track 182 : Bruiser\_51
- Track 183 : Stasia\_51
- Track 184 : Noelle\_52
- Track 185 : Mundrea\_51
- Track 186 : Abdiel\_52
- Track 187 : Shygu2\_51
- Track 188 : SydNat\_51, Ghoulboy\_51, Bluefalcon\_47, Zolita\_50
- Track 189 : Dublin\_48, Aragog\_47, Conspiracy\_48, Discoknowium\_46, Tiger\_47, AgentM\_47, Jovo\_48, Phlorence\_46, PickleBack\_48, Lev2\_48, Archetta\_47, ForGetIt\_48
- Track 190 : PetterN\_53
- Track 191 : Coog\_47, Midas2\_47, Micasa\_48
- Track 192 : MarysWell\_48, Theia\_47
- Track 193 : Naca\_49, Scorpia\_53
- Track 194 : Chadwick\_52
- Track 195 : Benedict\_52

- Track 196 : HuhtaEnerson15\_48, LittleCherry\_48
- Track 197 : Milcery\_48
- Track 198 : Airmid\_49
- Track 199 : Bonamassa\_48
- Track 200 : Tarynearal\_46
- Track 201 : George\_46
- Track 202 : UnionJack\_50
- Track 203 : Cuco\_48
- Track 204 : Swirley\_50
- Track 205 : ElTiger69\_51
- Track 206 : Jabiru\_50
- Track 207 : Cookiedough\_57, SuperCallie99\_56, Newrala\_57
- Track 208 : Kipper29\_57, McFly\_57, VohminGhazi\_57, Hoot\_52, Candra\_57, Kazan\_58, EricB\_57, GreedyLawyer\_57
- Track 209 : SuperAwesome\_57
- Track 210 : Indra\_61, Koko\_59, Tucker\_58, Hexamo\_58, Jeffabunny\_58, CloudWang3\_58, Yokurt\_58, ToneTone\_55, Zulu\_59, Artemis2UCLA\_58, Helmet\_60, Wiks\_57, Garak\_60, WunderPhul\_58, Zaka\_58
- Track 211 : Gruunaga\_58, Hammer\_58, Rifter\_58, Blue7\_59, Gladiator\_55
- Track 212 : Pmask\_57
- Track 213 : BABullseye\_51, Isiphiwo\_55, Dorothea\_56, Chartreuse\_56, DaVinci\_56, Jordennis\_57
- Track 214 : JewelBug\_58
- Track 215 : Neeharika16\_56
- Track 216 : SmellyB\_57
- Track 217 : Roksolana\_59
- Track 218 : Blinn1\_60
- Track 219 : Priamo\_59
- Track 220 : PP\_54
- Track 221 : HINdeR\_48
- Track 222 : DroogsArmy\_49, Timshel\_50
- Track 223 : Sheen\_54
- Track 224 : Saintus\_48
- Track 225 : Danforth\_53, Dixon\_53, Groundhog\_52, Expelliarmus\_53, Astro\_53, Smeadley\_54, Roary\_54
- Track 226 : Phillis\_53, Stephig9\_54
- Track 227 : NearlyHeadless\_53
- Track 228 : Arissanae\_55
- Track 229 : Spouty\_54, ExplosioNervosa\_56, Qobbit\_56, Phaeder\_56, Catalina\_57, Fayely\_56, Priya\_56, Eidsmoe\_56, Aliter\_56, Conquerage\_56, EmyBug\_53, PackMan\_55, HortumSL17\_56, Tubs\_56, Myxus\_56
- Track 230 : Elephantoon\_55
- Track 231 : Beemo\_56, Phonnegut\_56, Pioneer\_56, Ugenie5\_53, Scherzo\_56
- Track 232 : Rahalelujah\_56
- Track 233 : LoneWolf\_57
- Track 234 : Yecey3\_57
- Track 235 : Maminaina\_55, BogosyJay\_55
- Track 236 : Vanisoa\_56
- Track 237 : Alma\_56
- Track 238 : Darrell\_58
- Track 239 : DreamTeam1\_54, Charm\_54
- Track 240 : SheaKeira\_54
- Track 241 : Keziacharles14\_56

- Track 242 : Toaka\_56
- Track 243 : Larnav\_74
- Track 244 : Targaryen\_70
- Track 245 : LilMartin\_66, MulchMansion\_66, Angela\_66
- Track 246 : Sushi23\_69, Cursive\_67, PacManQ\_70, Leo04\_74, HangryHippo\_71, BlueOtter\_71, Tribute\_67, Pepperwood\_69, Teutsch\_69, Watermoore\_69, Cross\_69, Lululemon\_70, Peebs\_68
- Track 247 : PinkiePie\_67, Squillium\_68, Bartholomune\_67, Liandry\_68
- Track 248 : Anedea\_68
- Track 249 : NootNoot\_65, Persimmon\_65, Paradiddles\_65
- Track 250 : Braelyn\_68
- Track 251 : Bmoc\_67
- Track 252 : Mildred21\_67
- Track 253 : Samisti12\_69
- Track 254 : Warpy\_73, Jay2Jay\_74
- Track 255 : Evy\_70
- Track 256 : Daubenski\_70
- Track 257 : EGole\_70
- Track 258 : MindFlayer\_69, Wipeout\_69, Quaran19\_71, Karimac\_70, Spelly\_71, JimJam\_71, Jollison\_76, Battuta\_69, Birchlyn\_68, Amabiko\_71, PumpkinSpice\_70, SaltySpitoon\_71, IchabodCrane\_68, Bordeaux\_69, Spilled\_72, Gibbi\_75, KentuckyRacer\_75, TomSawyer\_69, Starbow\_69, CeilingFan\_73
- Track 259 : Genie2\_71, BoomerJR\_71, Yaboi\_71, Stanimal\_71, Sollertia\_71
- Track 260 : Mugiwara\_72
- Track 261 : Wofford\_70
- Track 262 : Tomas\_73
- Track 263 : Elmer\_78
- Track 264 : StarPlatinum\_71
- Track 265 : Enygma\_71
- Track 266 : LukeCage\_70
- Track 267 : Dennebes\_73
- Track 268 : Olicious\_69, ToriToki\_69, Immanuel3\_68, ZooBear\_69, Percastrophe\_69, Romero\_69, HaugeAnator\_69
- Track 269 : Fabian\_63, Geostin\_60, FlowerPower\_65, RetrieverFever\_65, Vorvolakos\_66, Gremlin23\_65
- Track 270 : Stella\_70
- Track 271 : Treat\_69
- Track 272 : Kumquat\_67, Zeigle\_67, WRightOn\_71
- Track 273 : Rideau\_72
- Track 274 : RosePharie\_69
- Track 275 : Manuel\_66
- Track 276 : JPandJÉ\_69
- Track 277 : Emma1919\_50
- Track 278 : Faust\_50
- Track 279 : Kenrey\_50, Phredrick\_48
- Track 280 : Gilson\_50, MeganTheeKilla\_48, Forrest\_51, Jada\_49
- Track 281 : Blueeyedbeauty\_48
- Track 282 : Sham\_46
- Track 283 : Stigma\_49
- Track 284 : Beuffert\_47
- Track 285 : SeresaTree\_49
- Track 286 : Comrade\_49
- Track 287 : Francob\_48

- Track 288 : TunaTartare\_48
- Track 289 : Limpid\_46, Annadreamy\_46
- Track 290 : Karp\_48, Belfort\_50, SparkleGoddess\_49
- Track 291 : Patelgo\_49
- Track 292 : Moab\_49
- Track 293 : Circinus\_47, BillNye\_45
- Track 294 : Muntaha\_46
- Track 295 : Wakanda\_46
- Track 296 : Gollum\_44, Nancinator\_44, Espica\_44, UhSalsa\_44, Natosaleda\_43
- Track 297 : BobbyDazzler\_44, Jester\_43, Harlequin\_43
- Track 298 : Hiro\_44, Bryce\_43
- Track 299 : Partridge\_43
- Track 300 : AngryOrchard\_42
- Track 301 : AppleCloud\_41
- Track 302 : RGL3\_38
- Track 303 : Takoda\_44
- Track 304 : Lillie\_44, Rhodalysa\_44, RER2\_37, CosmicSans\_44, TWAMP\_44, Phrankenstein\_44, Alatin\_43, Rasputin\_44, Swann\_44
- Track 305 : PhailMary\_43, Yogi\_43, Bonanza\_44
- Track 306 : RexFury\_43, StCroix\_43, Bradshaw\_44, Krishelle\_44, Naiad\_43, Belenaria\_44
- Track 307 : Dinger\_43
- Track 308 : Shuman\_44
- Track 309 : Erik\_44
- Track 310 : Alpacados\_43, Yoncess\_43
- Track 311 : Peregrin\_88
- Track 312 : Weasels2\_89
- Track 313 : Grayson\_90
- Track 314 : Trina\_90
- Track 315 : NiceHouse\_79
- Track 316 : Francesca\_62
- Track 317 : Dorin\_62
- Track 318 : Success\_25

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

The start number called the most often in the published annotations is 148, it was called in 548 of the 812 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_59, 40AC\_57, A6\_47, ACFishhook\_57, AFIS\_49, AN3\_59, AN9\_59, ANI8\_59, AbbyPaige\_58, AbbysRanger\_51, Achebe\_50, Acme\_53, Acolyte\_51, Adzzy\_57, Agape74\_58, Aglet\_59, AgronaGT15\_57, Alatin\_43, Aliter\_56, Alma\_56, Alpacados\_43, Alsfro\_55, Altman\_54, Alvin\_51, Anaysia\_61, Aneem\_56, AnnaL29\_58, Anon\_58, Anselm\_57, Anthony\_51, Anubis\_61, ArcherNM\_51, Arissanae\_55, Arlo\_49, Artemis2UCLA\_58, Ashballer\_53, Astro\_53, Atkinbua\_54, AugsMagnumOpus\_61, B1\_50, BABullseye\_51, BK1\_47, BabyBack\_54, BabyRay\_55, Bachome\_57, Backyardigan\_50, Bactobuster\_55, Badger\_50, Baehxic\_55, Barriga\_52, Battleship\_63, Beatrix\_51, Beauxregard13\_58, Beemo\_56, BeesKnees\_54, Benedict\_52, BengiVuitton\_58, Benvolio\_53, Bexan\_50, BigMau\_52,

BigPaolini\_51, Bigfoot\_47, BillKnuckles\_52, Blinn1\_60, BluSpix\_51, Blue7\_59, BlueBird\_57, Bob3\_49, BobSwaget\_52, BogosyJay\_55, Bonamassa\_48, Bones\_52, Boohoo\_61, Bowtie\_56, BreSam8\_58, Briton15\_55, Bruns\_50, Bryce\_43, Bud\_55, Bugsy\_58, Bumblebee11\_50, Buttons\_50, BuzzBuzz\_56, Bxb1\_47, Bxz2\_54, C3\_54, CRB1\_60, CactusRose\_49, Candra\_57, Caraxes\_56, Carlyle\_50, Catalina\_57, Caviar\_54, Centaur\_57, Chadwick\_52, Chanagan\_48, Changeling\_55, Chargerpower\_54, Charm\_54, Chartreuse\_56, Che12\_57, ChipMunk\_58, Chupacabra\_52, Ciao\_51, Cici\_51, CloudWang3\_58, Colbster\_58, Colin\_56, Conquerage\_56, Coog\_47, Cookiedough\_57, CosmicSans\_44, Crispicous1\_49, Crucio\_56, Cuco\_48, Cueylyss\_53, Cullens\_58, D29\_54, D32\_57, DBQu4n\_58, DD5\_51, DaHudson\_58, DaVinci\_56, Daishi\_57, Dalmatian\_57, Danforth\_53, Darrell\_58, DarthPhader\_52, Datway\_51, DekHockey33\_62, Deloris\_57, Dexes\_52, Dieselweasel\_59, Dignity\_58, Dinger\_43, Dixon\_53, Doom\_51, Dorothea\_56, DrFeelGood\_49, Drake55\_58, Drake94\_51, DreamCatcher\_55, DreamTeam1\_54, Dreamboat\_53, DroogsArmy\_49, DudeLittle\_55, Dulcie\_52, Duplo\_58, Dynamix\_53, EagleEye\_58, Eaglepride\_54, Ebony\_55, Echild\_56, Edison31\_51, Edtherson\_51, Eidsmoe\_56, Elephantoon\_55, EmyBug\_53, EpicPhail\_59, Epsocamisio\_58, Equemioh13\_57, EricB\_57, Erik\_44, Espica\_44, Et2Brutus\_54, EvilGenius\_58, Expelliarmus\_53, ExplosioNervosa\_56, Eyeball\_53, Fajezeel\_53, Fameo\_56, Farber\_58, Fascinus\_47, Fayely\_56, Fenn\_54, Fernando\_58, Fibonacci\_55, FiringLine\_56, First\_0058, Flare16\_56, Flaverint\_56, Forsytheast\_51, Fred313\_55, Froghopper\_49, Fushigi\_50, Gail\_60, Garak\_60, GaugeLDP\_54, Gemma\_57, Georgie2\_57, Gilberta\_56, GingkoMaracino\_58, Giroux\_56, Gladiator\_55, Gollum\_44, Goose\_53, Graduation\_55, GrecoEtereo\_52, GreedyLawyer\_57, Greg\_53, Grif\_58, Groundhog\_52, Grouphink\_59, Grub\_58, Grum1\_58, Gruunaga\_58, GtownJaz\_58, Gwendoluna\_56, Gyzlar\_47, HINdeR\_48, Hammer\_58, HarryHoudini\_57, HarryOW\_50, HashRod\_59, HaveUMetTed\_59, Heathen\_55, Heffalump\_55, HelDan\_55, Heliosoles\_57, Helmet\_60, Herbertwm\_54, Hercules11\_58, Hermia\_51, HermioneGrange\_51, Hexamo\_58, Hiro\_44, Homines\_44, Hookmount\_54, Hoot\_52, Hope4ever\_54, HortumSL17\_56, HuhtaEnerson15\_48, Hutc2\_55, ILeeKay\_55, Idleandcovert\_56, IgnatiusPatJac\_52, Indra\_61, Insomnia\_55, IronMan\_56, Isca\_54, Isiphiwo\_55, Iwokeuplikedis\_59, JC27\_53, JF2\_53, JF4\_53, JHC117\_58, JSwag\_60, Jaan\_56, Jabiru\_50, Jabith\_56, JackSparrow\_53, Jasper\_53, Jeeves\_60, Jeffabunny\_58, JenCasNa\_59, JeppNRM\_59, Jerm2\_52, Jerm\_58, JewelBug\_58, Jobu08\_57, Jordennis\_57, Jorgensen\_53, Joselito\_56, JoshKayV\_58, Journey13\_50, Jsquared\_54, JuliaChild\_52, KADY\_58, KSSJEB\_51, Kalb97\_59, Kalnoky\_59, Kalpine\_54, Kanely\_53, Katalie136\_51, KatherineG\_61, Kazan\_58, Kerberos\_58, Keziacharles14\_56, Kimona\_52, KingCyrus\_58, Kipper29\_57, KittenMittens\_50, Koduck\_57, Koko\_59, Kristoff\_53, KyMonks1A\_53, Kykar\_51, L5\_54, LBerry\_59, LadyBird\_61, Lambert1\_54, Lamina13\_52, Landor\_57, Larenn\_55, LarryKay\_58, LastResort\_59, Lesedi\_48, Leviathan\_58, LiTurb\_57, Lilith\_59, Lillie\_44, LittleCherry\_48, Lockley\_50, Lokk\_53, LoneWolf\_57, Looper\_60, Loser\_58, Louie6\_57, Luchador\_60, Lucivia\_56, Lucyedi\_57, LugYA\_61, MA5\_55, MK4\_55, MPlant7149\_50, MaCh\_56, Mabel\_55, MadMarie\_58, Magnar\_51, Mainiac\_58, Makemake\_51, Malec\_56, Malinsilva\_60, Maminaina\_55, Manu\_58, MarQuardt\_58, Marcell\_49, Marge\_51, Margo\_54, Marie\_58, Marius\_59, Maroc7\_49, Marsha\_51, McFly\_57, McGuire\_53, Methuselah\_54, Micasa\_48, Michley\_51, Microwolf\_58, MiculUcigas\_56, Midas2\_47, Miko\_53, Milcery\_48, MinecraftSteve\_61, Misomonster\_59, MissWhite\_55, Molly\_52, MoneyMay\_58, Moose\_51, Morpher26\_51, MuchMore\_61, Mulciber\_55, Munch\_56, Mundrea\_51, MyraDee\_49, Myxus\_56, NaSiaTalie\_56, Naca\_49, Naira\_54, Naji\_58, Nancinator\_44, Natosaleda\_43, NearlyHeadless\_53, Nebulosus\_59, Nedarya\_57, Nerujay\_55,

Newrala\_57, NicoleTera\_55, Noella\_54, Noelle\_52, Norbert\_53, NothingSpecial\_54, OKCentral2016\_52, Odin\_54, Ohno789\_53, OlanP\_57, Ollie\_58, Orange\_55, P28Green\_59, PGHhamlin\_60, PP\_54, PSullivan\_51, PackMan\_55, PainterBoy\_57, Panamaxus\_52, Papez\_54, Paphu\_49, Pari\_53, Parliament\_51, Pawn\_58, PeaceMeal1\_51, Pelly\_51, Pembroke\_58, Penny1\_59, Perplexer\_51, Petersenfast\_54, Peterson\_56, PetiteSangsue\_51, Petp2012\_52, Petruchio\_51, PetterN\_53, Ph8s\_57, Phaded\_57, Phaeder\_56, Phantastic\_56, Pharaoh\_51, PherrisBueller\_51, Phillis\_53, PhishRPhriends\_56, Phlei\_45, Phoebe\_59, Phonnegut\_56, Phoxy\_58, Phrankenstein\_44, Phranny\_59, PinkPlastic\_52, Pioneer\_56, Pippin\_53, Piro94\_56, Pistachio\_57, Pita2\_54, Pmask\_57, Pocahontas\_54, Pomar16\_58, Poompha\_52, Popcicle\_54, PotatoSplit\_60, Power\_55, Priamo\_59, Priya\_56, Pukovnik\_55, Puppy\_57, PurpleHaze\_58, QTRlifeCrisis\_55, Qobbit\_56, QueenB2\_55, QueenBeesly\_56, QuinnKiro\_53, RER2\_37, RGL3\_38, Rachaly\_55, Rahalelujah\_56, Rasputin\_44, ReMo\_59, Reba\_58, Rebeuca\_53, RedRock\_58, Refuge\_54, Remus\_61, ResDef\_55, Retro23\_57, Rhodalysa\_44, RhynO\_54, Rhynn\_50, Rifter\_58, Roary\_54, Rockstar\_55, Rohr\_52, Roksolana\_59, Rosalind\_59, Rubeus\_51, Rufus\_52, Rummer\_57, Ruotula\_54, Rutherford\_53, STLscum\_54, Sabia\_58, Sabinator\_57, Sagefire\_54, Saintus\_48, Salz\_54, SarFire\_49, SaturnRing\_56, Scherzo\_56, Scorpia\_53, Scout\_55, Scowl\_52, Seabiscuit\_54, SemperFi\_57, Serenity\_56, Severus\_51, Sham4\_55, ShayRa\_61, SheaKeira\_54, Sheen\_54, Shygu2\_51, Sibs6\_53, SkiPole\_56, Smeadley\_54, Smeagan\_59, Smeagol\_53, SnapTap\_56, Snape\_55, Snazzy\_50, Snickers\_58, SoYo\_58, SoilDragon\_58, Solon\_50, SororFago\_58, Soshari\_60, Soups\_61, Spike509\_58, SpikeBT\_51, Spouty\_54, Squee\_52, Stagni\_58, StarStuff\_58, Stasia\_51, Steamy\_52, StepMih\_58, Stephig9\_54, StewieG\_50, StrongArm\_51, Strosahl\_61, Sunshine924\_53, SuperAwesome\_57, SuperCallie99\_56, Superchunk\_54, Swann\_44, SweetiePie\_56, SwirlSquare\_61, Swirley\_50, SwissCheese\_53, Switzerland\_60, Swole\_52, TNguyen7\_56, TWAMP\_44, Takoda\_44, Target\_52, TarsusIV\_55, Tasp14\_53, Taurus\_59, Teodoridan\_50, Texage\_53, Thor\_49, Tiffany\_58, Timothy\_55, Timshel\_50, TinyTimmy\_54, TipsytheTRex\_52, Toaka\_56, Todacoro\_54, Tomathan\_58, ToneTone\_55, Topanga\_51, Topgun\_51, Tote\_47, Traft412\_54, Treddle\_52, Trike\_51, Trixie\_54, Trooper\_57, Trouble\_54, Tubs\_56, Tucker\_58, Turbido\_57, Twister\_51, TwoPeat\_51, Ugenie5\_53, UhSalsa\_44, UnionJack\_50, Updawg\_57, VA6\_57, VC3\_59, Vanisoa\_56, Veracruz\_53, Vix\_58, VohminGhazi\_57, Waits\_61, WalterMcMickey\_51, Watermelon\_52, Watson\_58, WeiHuDA\_58, Whabigail7\_57, Wheeler\_52, WideWale\_57, Wiks\_57, Wile\_51, Wilkins\_51, Wooldri\_60, WunderPhul\_58, Xena\_50, XianYue\_55, Yecey3\_57, Yokurt\_58, Yoncess\_43, Zaka\_58, Zephyr\_51, Zetzy\_57, Zimmer\_53, Zulu\_59,

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

- AngryOrchard\_42, AppleCloud\_41, Belenaria\_44, BobbyDazzler\_44, Bonanza\_44, Bradshaw\_44, Harlequin\_43, Jester\_43, Krishelle\_44, Monet\_54, Naiad\_43, Neeharika16\_56, Partridge\_43, PhailMary\_43, RexFury\_43, Shuman\_44, SmellyB\_57, StCroix\_43, Yogi\_43,

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

- Abdiel\_52, AgentM\_47, Airmid\_49, Albee\_52, Alberto7\_52, Amabiko\_71, Anedea\_68, Angela\_66, Annadreamy\_46, Annyong\_52, Aragog\_47, Archetta\_47, Arturo\_51, AvatarAhPeg\_50, Avle17\_52, Baby16\_52, BangNhom\_53, Bartholomune\_67, Bartimeaus\_52, Battuta\_69, Belfort\_50, BellusTerra\_53, Beuffert\_47, BiancaTri92\_56, BillNye\_45, Birchlyn\_68, Blackmoor\_52, BlueOtter\_71, Blueeyedbeauty\_48, Bluefalcon\_47, Bmoc\_67, Bombshell\_52, BoomerJR\_71,

Bordeaux\_69, Braelyn\_68, Broseidon\_52, Bruiser\_51, BubbleTrouble\_51, Burger\_50, Caelakin\_52, Camperdownii\_50, CeilingFan\_73, CentreCat\_52, Cerulean\_53, ChampagnePapi\_54, Chaph\_52, Cindaradix\_49, Cintron\_51, Circinus\_47, Citius\_52, Clarenza\_51, Cocoaberry\_52, Commander\_52, Comrade\_49, Connomayer\_52, Conspiracy\_48, Cross\_69, Cursive\_67, Daubenski\_70, Deano\_51, Dennebes\_73, Dhanush\_52, DirtyDunning\_51, Discoknowium\_46, Dorin\_62, Druantia\_52, Dublin\_48, EGole\_70, EZMoney23\_54, Eagle\_52, Eapen\_52, ElTiger69\_51, Elmer\_78, Emma1919\_50, Enygrma\_71, Eris\_51, Eros\_52, Eurydice\_53, Evy\_70, Fabian\_63, Faust\_50, Florean\_52, FlowerPower\_65, Flux\_52, ForGetIt\_48, Forrest\_51, Francesca\_62, Francob\_48, Funston\_51, Gadost\_52, Genie2\_71, George\_46, Geostin\_60, Ghoulboy\_51, Gibbi\_75, Gilson\_50, Grayson\_90, Gremlin23\_65, HamSlice\_51, HangryHippo\_71, Happiness\_51, HaugeAnator\_69, Holli\_51, Houdini22\_52, ICleared\_52, Iceman\_52, IchabodCrane\_68, Immanuel3\_68, Iracema64\_53, JPandJE\_69, Jada\_49, Jay2Jay\_74, Jaykayelowell\_50, JetBlade\_52, JimJam\_71, Jollison\_76, JoongJeon\_51, Jovo\_48, KFPoly\_51, Kampy\_52, Karimac\_70, Karp\_48, Kenrey\_50, KentuckyRacer\_75, Kingmustik0402\_52, Koreni\_51, Kratark\_52, Kremtemulon\_50, Kumquat\_67, Kyee\_52, LHTSCC\_54, LappelDuVide\_51, Larnav\_74, Lemur\_52, Leo04\_74, LeoAvram\_52, Leogania\_56, Lev2\_48, Liandry\_68, LilMartin\_66, Limpid\_46, LittleB\_52, LittleGuy\_52, LochMonster\_53, Lorenzo\_52, LukeCage\_70, Lululemon\_70, Lunsford\_53, Manuel\_66, MarysWell\_48, Maverick\_52, Maxo\_53, Mazhar510\_52, Medusa\_52, MeeZee\_52, MeganTheeKilla\_48, Melvin\_54, Mildred21\_67, Millski\_51, MindFlayer\_69, Miramae\_50, Moab\_49, Morrow\_53, Mugiwara\_72, MulchMansion\_66, Muntaha\_46, Nebs\_53, Nemo27\_52, NiceHouse\_79, NootNoot\_65, NorthStar\_51, NotAPhaseMom\_52, Nyxis\_52, OKaNui\_52, Obama12\_53, Ohfah\_53, Olicious\_69, PacManQ\_70, Palestino\_51, Paradiddles\_65, Patelgo\_49, Peaches\_52, Peebs\_68, Pepperwood\_69, Percastrophe\_69, Peregrin\_88, Persimmon\_65, PeterPeter\_52, Phacado\_52, Phelipe\_53, Phighter1804\_52, Phlorence\_46, Phontbonne\_52, Phredrick\_48, PickleBack\_48, PinkiePie\_67, Pipcraft\_50, Polymorphads\_53, Pumbaa\_52, PumpkinSpice\_70, Quaran19\_71, Relief\_51, RetrieverFever\_65, Rideau\_72, Romero\_69, Romney\_52, Roosevelt\_51, RosePharie\_69, Ruin\_52, Sabertooth\_52, SaltySpitoon\_71, Samisti12\_69, Scamp\_52, SeresaTree\_49, Shaka\_52, Sham\_46, SheldonCooper\_54, Skipitt\_51, Sollertia\_71, SparkleGoddess\_49, Sparxx\_53, Spelly\_71, Spilled\_72, Spino\_51, Squillium\_68, Stanimal\_71, StarPlatinum\_71, Starbow\_69, Stella\_70, Stigma\_49, Stink\_49, Success\_25, Sushi23\_69, SydNat\_51, Taquarus\_52, Targaryen\_70, Tarynearal\_46, Teutsch\_69, Thanksgivukkah\_51, Theia\_47, Tiger\_47, TinaFeyge\_52, Tinybot\_51, TiroTheta9\_52, TomSawyer\_69, Tomas\_73, ToriToki\_69, Treat\_69, Tribute\_67, Trina\_90, TroyPia\_53, TunaTartare\_48, TygerBlood\_52, Ulysses\_51, Vorvolakos\_66, WRightOn\_71, Wakanda\_46, Wander\_52, Warpy\_73, Watermoore\_69, Weasels2\_89, Wilbur\_52, Wipeout\_69, Wizard007\_52, Wofford\_70, Yaboi\_71, YoSam321\_52, Zeigle\_67, Zolita\_50, ZooBear\_69,

### Summary by start number:

#### Start 65:

- Found in 3 of 880 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 2 of 812
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BiancaTri92\_56 (A2), EZMoney23\_54 (A2), Leogania\_56 (A2),

Start 69:

- Found in 2 of 880 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Rideau\_72 (BF),

Start 117:

- Found in 120 of 880 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 107 of 812
- Called 90.8% of time when present
- Phage (with cluster) where this start called: Abdiel\_52 (A4), Albee\_52 (A4), Annyong\_52 (A4), Arturo\_51 (A4), AvatarAhPeg\_50 (A4), Avle17\_52 (A4), Baby16\_52 (A4), BangNhom\_53 (A4), Bartimeaus\_52 (A4), BellusTerra\_53 (A4), Blackmoor\_52 (A4), Bombshell\_52 (A4), Broseidon\_52 (A4), Bruiser\_51 (A4), BubbleTrouble\_51 (A4), Burger\_50 (A4), Caelakin\_52 (A4), Camperdownii\_50 (A4), CentreCat\_52 (A4), Cerulean\_53 (A4), ChampagnePapi\_54 (A4), Chaph\_52 (A4), Cindaradix\_49 (A4), Cintron\_51 (A4), Citius\_52 (A4), Clarenza\_51 (A4), Cocoaberry\_52 (A4), Commander\_52 (A4), Connomayer\_52 (A4), Dhanush\_52 (A4), Druantia\_52 (A4), Eagle\_52 (A4), Eapen\_52 (A4), Eris\_51 (A4), Eros\_52 (A4), Eurydice\_53 (A4), Florean\_52 (A4), Flux\_52 (A4), Funston\_51 (A4), Gadost\_52 (A4), HamSlice\_51 (A4), Happiness\_51 (A4), Holli\_51 (A4), ICleared\_52 (A4), Iceman\_52 (A4), Iracema64\_53 (A4), Jaykayelowell\_50 (A4), JetBlade\_52 (A4), JoongJeon\_51 (A4), KFPoly\_51 (A4), Kampy\_52 (A4), Kingmustik0402\_52 (A4), Koreni\_51 (A4), Kratark\_52 (A4), Kretemulon\_50 (A4), Kyee\_52 (A4), LHTSCC\_54 (A4), Lemur\_52 (A4), LeoAvram\_52 (A4), LittleB\_52 (A4), LittleGuy\_52 (A4), LochMonster\_53 (A4), Lorenzo\_52 (A4), Maverick\_52 (A4), Maxo\_53 (A4), Medusa\_52 (A4), MeeZee\_52 (A4), Melvin\_54 (A4), Millski\_51 (A4), Miramae\_50 (A4), Morrow\_53 (A4), Nebs\_53 (A4), Nemo27\_52 (A4), NorthStar\_51 (A4), Nyxis\_52 (A4), OKaNui\_52 (A4), Ohfah\_53 (A4), Palestino\_51 (A4), Peaches\_52 (A4), PeterPeter\_52 (A4), Phacado\_52 (A4), Phelipe\_53 (A4), Phontbonne\_52 (A4), Pipcraft\_50 (A4), Polymorphads\_53 (A4), Pumbaa\_52 (A4), Relief\_51 (A4), Romney\_52 (A4), Roosevelt\_51 (A4), Ruin\_52 (A4), Sabertooth\_52 (A4), Scamp\_52 (A4), Shaka\_52 (A4), SheldonCooper\_54 (A4), Skipitt\_51 (A4), Sparxx\_53 (A4), Spino\_51 (A4), Stink\_49 (A4), Thanksgivukkah\_51 (A4), TinaFeyge\_52 (A4), Tinybot\_51 (A4), TiroTheta9\_52 (A4), TroyPia\_53 (A4), TygerBlood\_52 (A4), Ulysses\_51 (A4), Wander\_52 (A4), Wilbur\_52 (A4), Wizard007\_52 (A4), YoSam321\_52 (A4),

Start 129:

- Found in 37 of 880 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 812
- Called 5.4% of time when present
- Phage (with cluster) where this start called: Neeharika16\_56 (A6), SmellyB\_57 (A6),

Start 139:

- Found in 9 of 880 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 8 of 812
- Called 88.9% of time when present
- Phage (with cluster) where this start called: HaugeAnator\_69 (BF), Immanuel3\_68 (BF), JPandJE\_69 (BF), Olicious\_69 (BF), Percastrophe\_69 (BF), Romero\_69 (BF), ToriToki\_69 (BF), ZooBear\_69 (BF),

Start 140:

- Found in 23 of 880 ( 2.6% ) of genes in pham

- Manual Annotations of this start: 1 of 812
- Called 4.3% of time when present
- Phage (with cluster) where this start called: AngryOrchard\_42 (CA),

Start 144:

- Found in 74 of 880 ( 8.4% ) of genes in pham
- Manual Annotations of this start: 59 of 812
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amabiko\_71 (BE2), Anedea\_68 (BE1), Angela\_66 (BE1), Bartholomune\_67 (BE1), Battuta\_69 (BE2), Birchlyn\_68 (BE2), BlueOtter\_71 (BE1), Bmoc\_67 (BE1), BoomerJR\_71 (BE2), Bordeaux\_69 (BE2), Braelyn\_68 (BE1), CeilingFan\_73 (BE2), Cross\_69 (BE1), Cursive\_67 (BE1), Daubenski\_70 (BE1), Dorin\_62 (CG), EGole\_70 (BE1), Elmer\_78 (BE2), Enygma\_71 (BE2), Evy\_70 (BE1), Francesca\_62 (CG), Genie2\_71 (BE2), Gibbi\_75 (BE2), Grayson\_90 (CB), HangryHippo\_71 (BE1), IchabodCrane\_68 (BE2), Jay2Jay\_74 (BE1), JimJam\_71 (BE2), Jollison\_76 (BE2), Karimac\_70 (BE2), KentuckyRacer\_75 (BE2), Larnav\_74 (BE1), Leo04\_74 (BE1), Liandry\_68 (BE1), LiIMartin\_66 (BE1), LukeCage\_70 (BE2), Lululemon\_70 (BE1), Mildred21\_67 (BE1), MindFlayer\_69 (BE2), Mugiwara\_72 (BE2), MulchMansion\_66 (BE1), NiceHouse\_79 (CE), NootNoot\_65 (BE1), PacManQ\_70 (BE1), Paradiddles\_65 (BE1), Peebs\_68 (BE1), Pepperwood\_69 (BE1), Peregrin\_88 (CB), Persimmon\_65 (BE1), PinkiePie\_67 (BE1), PumpkinSpice\_70 (BE2), Quaran19\_71 (BE2), SaltySpitoon\_71 (BE2), Samisti12\_69 (BE1), Sollertia\_71 (BE2), Spelly\_71 (BE2), Spilled\_72 (BE2), Squillium\_68 (BE1), Stanimal\_71 (BE2), StarPlatinum\_71 (BE2), Starbow\_69 (BE2), Sushi23\_69 (BE1), Targaryen\_70 (BE1), Teutsch\_69 (BE1), TomSawyer\_69 (BE2), Tomas\_73 (BE2), Tribute\_67 (BE1), Trina\_90 (CE), Warpy\_73 (BE1), Watermoore\_69 (BE1), Weasels2\_89 (CB), Wipeout\_69 (BE2), Wofford\_70 (BE2), Yaboi\_71 (BE2),

Start 145:

- Found in 56 of 880 ( 6.4% ) of genes in pham
- Manual Annotations of this start: 36 of 812
- Called 64.3% of time when present
- Phage (with cluster) where this start called: AgentM\_47 (A5), Airmid\_49 (A5), AppleCloud\_41 (CA), Aragog\_47 (A5), Archetta\_47 (A5), Belenaria\_44 (CA), Bluefalcon\_47 (A5), BobbyDazzler\_44 (CA), Bonanza\_44 (CA), Bradshaw\_44 (CA), Conspiracy\_48 (A5), Discoknowium\_46 (A5), Dublin\_48 (A5), ElTiger69\_51 (A5), ForGetIt\_48 (A5), George\_46 (A5), Ghoulboy\_51 (A5), Harlequin\_43 (CA), Jester\_43 (CA), Jovo\_48 (A5), Krishelle\_44 (CA), Lev2\_48 (A5), MarysWell\_48 (A5), Naiad\_43 (CA), PhailMary\_43 (CA), Phlorence\_46 (A5), PickleBack\_48 (A5), RexFury\_43 (CA), Shuman\_44 (CA), StCroix\_43 (CA), SydNat\_51 (A5), Tarynearal\_46 (A5), Theia\_47 (A5), Tiger\_47 (A5), Yogi\_43 (CA), Zolita\_50 (A5),

Start 146:

- Found in 4 of 880 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 4 of 812
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillNye\_45 (BK2), Circinus\_47 (BK2), Muntaha\_46 (BK2), Wakanda\_46 (BK2),

Start 147:

- Found in 37 of 880 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 12 of 812

- Called 35.1% of time when present
- Phage (with cluster) where this start called: Dennebes\_73 (BF), Fabian\_63 (BF), FlowerPower\_65 (BF), Geostin\_60 (BF), Gremlin23\_65 (BF), Kumquat\_67 (BF), RetrieverFever\_65 (BF), RosePharie\_69 (BF), Stella\_70 (BF), Treat\_69 (BF), Vorvolakos\_66 (BF), WRightOn\_71 (BF), Zeigle\_67 (BF),

Start 148:

- Found in 610 of 880 ( 69.3% ) of genes in pham
- Manual Annotations of this start: 548 of 812
- Called 96.9% of time when present
- Phage (with cluster) where this start called: 20ES\_59 (A2), 40AC\_57 (A17), A6\_47 (A1), ACFishhook\_57 (A3), AFIS\_49 (A1), AN3\_59 (A2), AN9\_59 (A2), ANI8\_59 (A2), AbbyPaige\_58 (A2), AbbysRanger\_51 (A4), Achebe\_50 (A4), Acme\_53 (A1), Acolyte\_51 (A2), Adzzy\_57 (A2), Agape74\_58 (A2), Aglet\_59 (A3), AgronaGT15\_57 (A3), Alatin\_43 (CA), Aliter\_56 (A9), Alma\_56 (A9), Alpacados\_43 (CA), Alsfro\_55 (A1), Altman\_54 (A1), Alvin\_51 (A1), Anaysia\_61 (A15), Aneem\_56 (A11), AnnaL29\_58 (A2), Anon\_58 (A15), Anselm\_57 (A2), Anthony\_51 (A20), Anubis\_61 (A3), ArcherNM\_51 (A2), Arissanae\_55 (A9), Arlo\_49 (A1), Artemis2UCLA\_58 (A6), Ashballer\_53 (A1), Astro\_53 (A8), Atkinbua\_54 (A1), AugsMagnumOpus\_61 (A3), B1\_50 (A3), BABullseye\_51 (A6), BK1\_47 (A1), BabyBack\_54 (A2), BabyRay\_55 (A3), Bachome\_57 (A11), Backyardigan\_50 (A4), Bactobuster\_55 (A2), Badger\_50 (A4), Baehexic\_55 (A2), Barriga\_52 (A1), Battleship\_63 (A15), Beatrix\_51 (A1), Beauxregard13\_58 (A3), Beemo\_56 (A9), BeesKnees\_54 (A1), Benedict\_52 (A5), BengiVuitton\_58 (A2), Benvolio\_53 (A2), Bexan\_50 (A1), BigMau\_52 (A1), BigPaolini\_51 (A1), Bigfoot\_47 (A1), BillKnuckles\_52 (A1), Blinn1\_60 (A6), BluSpix\_51 (A1), Blue7\_59 (A6), BlueBird\_57 (A3), Bob3\_49 (A1), BobSwaget\_52 (A2), BogosyJay\_55 (A9), Bonamassa\_48 (A5), Bones\_52 (A1), Boohoo\_61 (A15), Bowtie\_56 (A11), BreSam8\_58 (A3), Briton15\_55 (A1), Bruns\_50 (A1), Bryce\_43 (CA), Bud\_55 (A11), Bugsy\_58 (A2), Bumblebee11\_50 (A4), Buttons\_50 (A1), BuzzBuzz\_56 (A3), Bxb1\_47 (A1), Bxz2\_54 (A3), C3\_54 (A2), CRB1\_60 (A2), CactusRose\_49 (A1), Candra\_57 (A6), Caraxes\_56 (A2), Carlyle\_50 (A1), Catalina\_57 (A9), Caviar\_54 (A3), Centaur\_57 (A2), Chadwick\_52 (A5), Chanagan\_48 (A1), Changeling\_55 (A2), Chargerpower\_54 (A), Charm\_54 (A9), Chartreuse\_56 (A6), Che12\_57 (A2), ChipMunk\_58 (A2), Chupacabra\_52 (A10), Ciao\_51 (A1), Cici\_51 (A4), CloudWang3\_58 (A6), Colbster\_58 (A3), Colin\_56 (A2), Conquerage\_56 (A9), Coog\_47 (A5), Cookiedough\_57 (A6), CosmicSans\_44 (CA), Crispicous1\_49 (A1), Crucio\_56 (A2), Cuco\_48 (A5), Cueylyss\_53 (A1), Cullens\_58 (A3), D29\_54 (A2), D32\_57 (A2), DBQu4n\_58 (A2), DD5\_51 (A1), DaHudson\_58 (A3), DaVinci\_56 (A6), Daishi\_57 (A3), Dalmatian\_57 (A2), Danforth\_53 (A8), Darrell\_58 (A9), DarthPhader\_52 (A12), Datway\_51 (A4), DekHockey33\_62 (A15), Deloris\_57 (A2), Dexes\_52 (A1), Dieselweasel\_59 (A3), Dignity\_58 (A2), Dinger\_43 (CA), Dixon\_53 (A8), Doom\_51 (A1), Dorothea\_56 (A6), DrFeelGood\_49 (A1), Drake55\_58 (A2), Drake94\_51 (A10), DreamCatcher\_55 (A1), DreamTeam1\_54 (A9), Dreamboat\_53 (A1), DroogsArmy\_49 (A7), DudeLittle\_55 (A2), Dulcie\_52 (A1), Duplo\_58 (A2), Dynamix\_53 (A1), EagleEye\_58 (A16), Eaglepride\_54 (A10), Ebony\_55 (A11), Echild\_56 (A2), Edison31\_51 (A10), Edtherson\_51 (A1), Eidsmoe\_56 (A9), Elephantoon\_55 (A9), EmyBug\_53 (A9), EpicPhail\_59 (A3), Epsocamisio\_58 (A15), Equemioh13\_57 (A2), EricB\_57 (A6), Erik\_44 (CA), Espica\_44 (CA), Et2Brutus\_54 (A11), EvilGenius\_58 (A2), Expelliarmus\_53 (A8), ExplosioNervosa\_56 (A9), Eyeball\_53 (A1), Fajezeel\_53 (A1), Fameo\_56 (A2), Farber\_58 (A3), Fascinus\_47 (A1), Fayely\_56 (A9), Fenn\_54 (A1), Fernando\_58 (A3), Fibonacci\_55 (A11), FiringLine\_56 (A2), First\_0058 (A2), Flare16\_56 (A2), Flaverint\_56 (A11), Forsytheast\_51 (A1), Fred313\_55 (A3), Froghopper\_49 (A1),

Fushigi\_50 (A1), Gail\_60 (A14), Garak\_60 (A6), GaugeLDP\_54 (A2), Gemma\_57 (A3), Georgie2\_57 (A2), Gilberta\_56 (A11), GingkoMaracino\_58 (A3), Giroux\_56 (A3), Gladiator\_55 (A6), Gollum\_44 (CA), Goose\_53 (A10), Graduation\_55 (A1), GrecoEtereo\_52 (A1), GreedyLawyer\_57 (A6), Greg\_53 (A1), Grif\_58 (A3), Groundhog\_52 (A8), Groupthink\_59 (A3), Grub\_58 (A3), Grum1\_58 (A3), Gruunaga\_58 (A6), GtownJaz\_58 (A3), Gwendoluna\_56 (A1), Gyzlar\_47 (A1), HINdeR\_48 (A7), Hammer\_58 (A6), HarryHoudini\_57 (A2), HarryOW\_50 (A1), HashRod\_59 (A3), HaveUMetTed\_59 (A3), Heathen\_55 (A3), Heffalump\_55 (A2), HelDan\_55 (A3), Heliosoles\_57 (A3), Helmet\_60 (A6), Herbertwm\_54 (A2), Hercules11\_58 (A3), Hermia\_51 (A1), HermioneGrange\_51 (A1), Hexamo\_58 (A6), Hiro\_44 (CA), Homines\_44 (A1), Hookmount\_54 (A3), Hoot\_52 (A6), Hope4ever\_54 (A1), HortumSL17\_56 (A9), HuhtaEnerson15\_48 (A5), Hutc2\_55 (A11), ILeeKay\_55 (A1), Idleandcovert\_56 (A3), IgnatiusPatJac\_52 (A1), Indra\_61 (A6), Insomnia\_55 (A11), IronMan\_56 (A2), Isca\_54 (A3), Isiphiwo\_55 (A6), Iwokeuplikedis\_59 (A2), JC27\_53 (A1), JF2\_53 (A3), JF4\_53 (A3), JHC117\_58 (A3), JSwag\_60 (A15), Jaan\_56 (A2), Jabiru\_50 (A5), Jabith\_56 (A11), JackSparrow\_53 (A1), Jasper\_53 (A1), Jeeves\_60 (A14), Jeffabunny\_58 (A6), JenCasNa\_59 (A3), JeppNRM\_59 (A3), Jerm2\_52 (A1), Jerm\_58 (A2), JewelBug\_58 (A6), Jobu08\_57 (A3), Jordennis\_57 (A6), Jorgensen\_53 (A1), Joselito\_56 (A11), JoshKayV\_58 (A2), Journey13\_50 (A2), Jsquared\_54 (A2), JuliaChild\_52 (A1), KADY\_58 (A3), KSSJEB\_51 (A1), Kalb97\_59 (A3), Kalnoky\_59 (A3), Kalpine\_54 (A2), Kanely\_53 (A1), Katalie136\_51 (A4), KatherineG\_61 (A15), Kazan\_58 (A6), Kerberos\_58 (A2), Keziacharles14\_56 (A9), Kimona\_52 (A19), KingCyrus\_58 (A2), Kipper29\_57 (A6), KittenMittens\_50 (A10), Koduck\_57 (A2), Koko\_59 (A6), Kristoff\_53 (A10), KyMonks1A\_53 (A1), Kykar\_51 (A1), L5\_54 (A2), LBerry\_59 (A3), LadyBird\_61 (A2), Lambert1\_54 (A3), Lamina13\_52 (A1), Landor\_57 (A2), Larenn\_55 (A2), LarryKay\_58 (A3), LastResort\_59 (A15), Lesedi\_48 (A1), Leviathan\_58 (A2), LilTurb\_57 (A2), Lilith\_59 (A3), Lillie\_44 (CA), LittleCherry\_48 (A5), Lockley\_50 (A1), Lokk\_53 (A2), LoneWolf\_57 (A9), Looper\_60 (A15), Loser\_58 (A2), Louie6\_57 (A3), Luchador\_60 (A14), Lucivia\_56 (A11), Lucyedi\_57 (A16), LugYA\_61 (A3), MA5\_55 (A3), MK4\_55 (A3), MPlant7149\_50 (A1), MaCh\_56 (A11), Mabel\_55 (A11), MadMarie\_58 (A3), Magnar\_51 (A1), Mainiac\_58 (A3), Makemake\_51 (A1), Malec\_56 (A2), Malinsilva\_60 (A3), Maminaina\_55 (A9), Manu\_58 (A3), MarQuardt\_58 (A3), Marcell\_49 (A1), Marge\_51 (A1), Margo\_54 (A3), Marie\_58 (A3), Marius\_59 (A3), Maroc7\_49 (A1), Marsha\_51 (A1), McFly\_57 (A6), McGuire\_53 (A1), Methuselah\_54 (A3), Micasa\_48 (A5), Michley\_51 (A1), Microwolf\_58 (A3), MicuUcigas\_56 (A2), Midas2\_47 (A5), Miko\_53 (A2), Milcery\_48 (A5), MinecraftSteve\_61 (A15), Misomonster\_59 (A3), MissWhite\_55 (A2), Molly\_52 (A1), MoneyMay\_58 (A3), Moose\_51 (A1), Morpher26\_51 (A4), MuchMore\_61 (A3), Mulciber\_55 (A11), Munch\_56 (A11), Mundrea\_51 (A4), MyraDee\_49 (A18), Myxus\_56 (A9), NaSiaTalie\_56 (A2), Naca\_49 (A5), Naira\_54 (A1), Naji\_58 (A2), Nancinator\_44 (CA), Natosaleda\_43 (CA), NearlyHeadless\_53 (A8), Nebulosus\_59 (A15), Nedarya\_57 (A15), Nerujay\_55 (A1), Newrala\_57 (A6), NicoleTera\_55 (A2), Noella\_54 (A3), Noelle\_52 (A4), Norbert\_53 (A3), NothingSpecial\_54 (A2), OKCentral2016\_52 (A10), Odin\_54 (A2), Ohno789\_53 (A1), OlanP\_57 (A3), Ollie\_58 (A3), Orange\_55 (A11), P28Green\_59 (A3), PGHhamlin\_60 (A3), PP\_54 (A7), PSullivan\_51 (A1), PackMan\_55 (A9), PainterBoy\_57 (A16), Panamaxus\_52 (A3), Papez\_54 (A1), Paphu\_49 (A1), Pari\_53 (A1), Parliament\_51 (A1), Pawn\_58 (A3), PeaceMeal1\_51 (A10), Pelly\_51 (A1), Pembroke\_58 (A3), Penny1\_59 (A3), Perplexer\_51 (A4), Petersenfast\_54 (A11), Peterson\_56 (A1), PetiteSangsue\_51 (A4), Petp2012\_52 (A1), Petruchio\_51 (A1), PetterN\_53 (A5), Ph8s\_57 (A2), Phaded\_57 (A2), Phaeder\_56 (A9), Phantastic\_56 (A3), Pharaoh\_51 (A12), PherrisBueller\_51 (A1), Phillis\_53 (A8), PhishRPhriends\_56 (A3), Phlei\_45 (A13),

Phoebe\_59 (A3), Phonnegut\_56 (A9), Phoxy\_58 (A3), Phrankenstein\_44 (CA),  
 Phranny\_59 (A3), PinkPlastic\_52 (A1), Pioneer\_56 (A9), Pippin\_53 (A1), Piro94\_56  
 (A2), Pistachio\_57 (A3), Pita2\_54 (A1), Pmask\_57 (A6), Pocahontas\_54 (A3),  
 Pomar16\_58 (A2), Poomphya\_52 (A10), Popcicle\_54 (A3), PotatoSplit\_60 (A3),  
 Power\_55 (A2), Priamo\_59 (A6), Priya\_56 (A9), Pukovnik\_55 (A2), Puppy\_57 (A3),  
 PurpleHaze\_58 (A3), QTRlifeCrisis\_55 (A1), Qobbit\_56 (A9), QueenB2\_55 (A2),  
 QueenBeesly\_56 (A2), QuinnKiro\_53 (A3), RER2\_37 (CA), RGL3\_38 (CA),  
 Rachaly\_55 (A2), Rahalelujah\_56 (A9), Rasputin\_44 (CA), ReMo\_59 (A15), Reba\_58  
 (A3), Rebeuca\_53 (A10), RedRock\_58 (A2), Refuge\_54 (A12), Remus\_61 (A15),  
 ResDef\_55 (A3), Retro23\_57 (A2), Rhodalyza\_44 (CA), RhynO\_54 (A10), Rhynn\_50  
 (A1), Rifter\_58 (A6), Roary\_54 (A8), Rockstar\_55 (A3), Rohr\_52 (A1), Roksolana\_59  
 (A6), Rosalind\_59 (A15), Rubeus\_51 (A1), Rufus\_52 (A1), Rummer\_57 (A3),  
 Ruotula\_54 (A1), Rutherford\_53 (A1), STLscum\_54 (A1), Sabia\_58 (A3),  
 Sabinator\_57 (A3), Sagefire\_54 (A1), Saintus\_48 (A8), Salz\_54 (A11), SarFire\_49  
 (A1), SaturnRing\_56 (A3), Scherzo\_56 (A9), Scorpia\_53 (A5), Scout\_55 (A3),  
 Scowl\_52 (A1), Seabiscuit\_54 (A1), SemperFi\_57 (A2), Serenity\_56 (A2),  
 Severus\_51 (A10), Sham4\_55 (A11), ShayRa\_61 (A15), Sheakira\_54 (A9),  
 Sheen\_54 (A7), Shygu2\_51 (A4), Sibs6\_53 (A1), SkiPole\_56 (A1), Smeadley\_54  
 (A8), Smeagan\_59 (A2), Smeagol\_53 (A1), SnapTap\_56 (A2), Snape\_55 (A11),  
 Snazzy\_50 (A1), Snickers\_58 (A3), SoYo\_58 (A3), SoilDragon\_58 (A3), Solon\_50  
 (A1), SororFago\_58 (A14), Soshari\_60 (A3), Soups\_61 (A15), Spike509\_58 (A3),  
 SpikeBT\_51 (A1), Spouty\_54 (A9), Squee\_52 (A1), Stagni\_58 (A3), StarStuff\_58  
 (A2), Stasia\_51 (A4), Steamy\_52 (A12), StepMih\_58 (A3), Stephig9\_54 (A8),  
 StewieG\_50 (A1), StrongArm\_51 (A1), Strosahl\_61 (A15), Sunshine924\_53 (A1),  
 SuperAwesome\_57 (A6), SuperCallie99\_56 (A6), Superchunk\_54 (A2), Swann\_44  
 (CA), SweetiePie\_56 (A2), SwirlSquare\_61 (A2), Swirley\_50 (A5), SwissCheese\_53  
 (A1), Switzerland\_60 (A15), Swole\_52 (A1), TNguyen7\_56 (A3), TWAMP\_44 (CA),  
 Takoda\_44 (CA), Target\_52 (A1), TarsusIV\_55 (A2), Tasp14\_53 (A1), Taurus\_59  
 (A3), Teodoridan\_50 (A1), Texage\_53 (A3), Thor\_49 (A1), Tiffany\_58 (A3),  
 Timothy\_55 (A11), Timshel\_50 (A7), TinyTimmy\_54 (A11), TipsytheTRex\_52 (A2),  
 Toaka\_56 (A9), Todacoro\_54 (A3), Tomathan\_58 (A2), ToneTone\_55 (A6),  
 Topanga\_51 (A10), Topgun\_51 (A1), Tote\_47 (A1), Traft412\_54 (A1), Treddle\_52  
 (A1), Trike\_51 (A10), Trixie\_54 (A2), Trooper\_57 (A2), Trouble\_54 (A1), Tubs\_56  
 (A9), Tucker\_58 (A6), Turbido\_57 (A2), Twister\_51 (A10), TwoPeat\_51 (A1),  
 Ugenie5\_53 (A9), UhSalsa\_44 (CA), UnionJack\_50 (A5), Updawg\_57 (A2), VA6\_57  
 (A2), VC3\_59 (A2), Vanisoa\_56 (A9), Veracruz\_53 (A3), Vix\_58 (A3),  
 VohminGhazi\_57 (A6), Waits\_61 (A15), WalterMcMickey\_51 (A10), Watermelon\_52  
 (A1), Watson\_58 (A3), WeiHuaDA\_58 (A2), Whabigail7\_57 (A2), Wheeler\_52 (A1),  
 WideWale\_57 (A2), Wiks\_57 (A6), Wile\_51 (A4), Wilkins\_51 (A1), Wooldri\_60 (A3),  
 WunderPhul\_58 (A6), Xena\_50 (A4), XianYue\_55 (A2), Yecey3\_57 (A9), Yokurt\_58  
 (A6), Yoncess\_43 (CA), Zaka\_58 (A6), Zephyr\_51 (A1), Zetzy\_57 (A3), Zimmer\_53  
 (A12), Zulu\_59 (A6),

### Start 149:

- Found in 24 of 880 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 23 of 812
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy\_46 (BK1), Belfort\_50  
 (BK1), Beuffert\_47 (BK1), Blueeyedbeauty\_48 (BK1), Comrade\_49 (BK1),  
 Emma1919\_50 (BK1), Faust\_50 (BK1), Forrest\_51 (BK1), Francob\_48 (BK1),  
 Gilson\_50 (BK1), Jada\_49 (BK1), Karp\_48 (BK1), Kenrey\_50 (BK1), Limpid\_46  
 (BK1), MeganTheeKilla\_48 (BK1), Moab\_49 (BK1), Patelgo\_49 (BK1), Phredrick\_48  
 (BK1), SeresaTree\_49 (BK1), Sham\_46 (BK1), SparkleGoddess\_49 (BK1),

Stigma\_49 (BK1), Success\_25 (singleton), TunaTartare\_48 (BK1),

Start 151:

- Found in 159 of 880 ( 18.1% ) of genes in pham
- Manual Annotations of this start: 9 of 812
- Called 7.5% of time when present
- Phage (with cluster) where this start called: Alberto7\_52 (A4), Deano\_51 (A4), DirtyDunning\_51 (A4), Houdini22\_52 (A4), LappelDuVide\_51 (A4), Lunsford\_53 (A4), Manuel\_66 (BF), Mazhar510\_52 (A4), NotAPhaseMom\_52 (A4), Obama12\_53 (A4), Phighter1804\_52 (A4), Taquarus\_52 (A4),

Start 157:

- Found in 207 of 880 ( 23.5% ) of genes in pham
- Manual Annotations of this start: 2 of 812
- Called 1.0% of time when present
- Phage (with cluster) where this start called: Monet\_54 (A1), Partridge\_43 (CA),

### **Summary by clusters:**

There are 31 clusters represented in this pham: BF, singleton, A15, A14, A17, A16, A11, A10, A13, A12, A19, A18, A1, A3, A2, A5, A4, A7, A6, A9, A8, A, CB, CA, CG, CE, BK1, BK2, A20, BE2, BE1,

Info for manual annotations of cluster A:

- Start number 148 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A1:

- Start number 148 was manually annotated 126 times for cluster A1.
- Start number 157 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A10:

- Start number 148 was manually annotated 16 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 148 was manually annotated 22 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 148 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 148 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 148 was manually annotated 21 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 148 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 148 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 148 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 65 was manually annotated 2 times for cluster A2.
- Start number 148 was manually annotated 98 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 148 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 148 was manually annotated 111 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 117 was manually annotated 107 times for cluster A4.
- Start number 148 was manually annotated 17 times for cluster A4.
- Start number 151 was manually annotated 8 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 145 was manually annotated 22 times for cluster A5.
- Start number 148 was manually annotated 15 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 129 was manually annotated 1 time for cluster A6.
- Start number 148 was manually annotated 38 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 148 was manually annotated 5 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 148 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 148 was manually annotated 32 times for cluster A9.

Info for manual annotations of cluster BE1:

- Start number 144 was manually annotated 28 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 144 was manually annotated 26 times for cluster BE2.

Info for manual annotations of cluster BF:

- Start number 139 was manually annotated 8 times for cluster BF.
- Start number 147 was manually annotated 12 times for cluster BF.
- Start number 151 was manually annotated 1 time for cluster BF.

Info for manual annotations of cluster BK1:

- Start number 149 was manually annotated 22 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 146 was manually annotated 4 times for cluster BK2.

Info for manual annotations of cluster CA:

- Start number 140 was manually annotated 1 time for cluster CA.
- Start number 145 was manually annotated 14 times for cluster CA.
- Start number 148 was manually annotated 20 times for cluster CA.
- Start number 157 was manually annotated 1 time for cluster CA.

Info for manual annotations of cluster CB:

- Start number 144 was manually annotated 3 times for cluster CB.

Info for manual annotations of cluster CE:

- Start number 144 was manually annotated 2 times for cluster CE.

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

Gene: 20ES\_59 Start: 38327, Stop: 37557, Start Num: 148

Candidate Starts for 20ES\_59:

(Start: 148 @38327 has 548 MA's), (Start: 157 @38267 has 2 MA's), (167, 38201), (170, 38144), (173, 38141), (197, 38006), (221, 37877), (233, 37811), (234, 37808), (236, 37784), (240, 37754), (249, 37712), (251, 37706), (263, 37640),

Gene: 40AC\_57 Start: 38963, Stop: 38193, Start Num: 148

Candidate Starts for 40AC\_57:

(Start: 148 @38963 has 548 MA's), (152, 38945), (155, 38927), (166, 38840), (167, 38837), (170, 38780), (173, 38777), (184, 38723), (206, 38603), (221, 38513), (232, 38450), (233, 38447), (234, 38444), (236, 38420), (244, 38375), (249, 38348), (251, 38342),

Gene: A6\_47 Start: 36206, Stop: 35439, Start Num: 148

Candidate Starts for A6\_47:

(Start: 148 @36206 has 548 MA's), (155, 36170), (Start: 157 @36146 has 2 MA's), (164, 36101), (173, 36020), (181, 35984), (188, 35945), (204, 35855), (208, 35828), (219, 35768), (221, 35759), (232, 35696), (246, 35612), (249, 35594), (251, 35588), (259, 35543), (261, 35531),

Gene: ACFishhook\_57 Start: 37664, Stop: 36897, Start Num: 148

Candidate Starts for ACFishhook\_57:

(Start: 147 @37667 has 12 MA's), (Start: 148 @37664 has 548 MA's), (164, 37559), (167, 37538), (173, 37478), (211, 37277), (216, 37244), (230, 37163), (232, 37154), (234, 37148), (241, 37091), (246, 37070), (249, 37052), (251, 37046), (262, 36986),

Gene: AFIS\_49 Start: 37010, Stop: 36243, Start Num: 148

Candidate Starts for AFIS\_49:

(Start: 148 @37010 has 548 MA's), (155, 36974), (Start: 157 @36950 has 2 MA's), (164, 36905), (173, 36824), (181, 36788), (188, 36749), (204, 36659), (208, 36632), (219, 36572), (221, 36563), (232, 36500), (246, 36416), (249, 36398), (251, 36392), (259, 36347), (261, 36335),

Gene: AN3\_59 Start: 37012, Stop: 36242, Start Num: 148

Candidate Starts for AN3\_59:

(7, 37408), (23, 37240), (Start: 148 @37012 has 548 MA's), (Start: 157 @36952 has 2 MA's), (164, 36907), (167, 36886), (170, 36829), (173, 36826), (221, 36562), (233, 36496), (234, 36493), (236, 36469), (249, 36397), (251, 36391), (263, 36325),

Gene: AN9\_59 Start: 37949, Stop: 37182, Start Num: 148

Candidate Starts for AN9\_59:

(Start: 148 @37949 has 548 MA's), (159, 37880), (167, 37823), (184, 37709), (186, 37694), (208, 37568), (210, 37562), (214, 37541), (222, 37493), (227, 37457), (232, 37436), (243, 37367), (246, 37355), (249, 37337), (251, 37331),

Gene: ANI8\_59 Start: 37949, Stop: 37182, Start Num: 148

Candidate Starts for ANI8\_59:

(Start: 148 @37949 has 548 MA's), (159, 37880), (167, 37823), (184, 37709), (186, 37694), (208, 37568), (210, 37562), (214, 37541), (222, 37493), (227, 37457), (232, 37436), (243, 37367), (246, 37355), (249, 37337), (251, 37331),

Gene: AbbyPaige\_58 Start: 38183, Stop: 37413, Start Num: 148

Candidate Starts for AbbyPaige\_58:

(23, 38411), (Start: 148 @38183 has 548 MA's), (Start: 157 @38123 has 2 MA's), (167, 38057), (170, 38000), (173, 37997), (206, 37823), (221, 37733), (236, 37640), (246, 37586), (249, 37568), (251, 37562),

Gene: AbbysRanger\_51 Start: 37075, Stop: 36308, Start Num: 148

Candidate Starts for AbbysRanger\_51:

(Start: 148 @37075 has 548 MA's), (Start: 151 @37060 has 9 MA's), (159, 37006), (167, 36949), (173, 36889), (234, 36559), (249, 36463), (251, 36457), (262, 36397),

Gene: Abdiel\_52 Start: 37113, Stop: 36346, Start Num: 117

Candidate Starts for Abdiel\_52:

(Start: 117 @37113 has 107 MA's), (Start: 151 @37098 has 9 MA's), (159, 37044), (164, 37008), (167, 36987), (197, 36792), (232, 36603), (234, 36597), (249, 36501), (251, 36495),

Gene: Achebe\_50 Start: 37058, Stop: 36291, Start Num: 148

Candidate Starts for Achebe\_50:

(Start: 148 @37058 has 548 MA's), (Start: 151 @37043 has 9 MA's), (159, 36989), (167, 36932), (173, 36872), (234, 36542), (249, 36446), (251, 36440), (262, 36380),

Gene: Acme\_53 Start: 37553, Stop: 36786, Start Num: 148

Candidate Starts for Acme\_53:

(Start: 148 @37553 has 548 MA's), (155, 37517), (167, 37427), (188, 37295), (200, 37226), (205, 37199), (219, 37115), (232, 37040), (234, 37034), (249, 36941), (259, 36890), (263, 36869),

Gene: Acolyte\_51 Start: 37032, Stop: 36262, Start Num: 148

Candidate Starts for Acolyte\_51:

(23, 37233), (Start: 148 @37032 has 548 MA's), (167, 36906), (170, 36849), (173, 36846), (194, 36732), (197, 36711), (221, 36582), (232, 36519), (233, 36516), (234, 36513), (236, 36489), (244, 36444), (249, 36417), (251, 36411), (277, 36267),

Gene: Adzzy\_57 Start: 36490, Stop: 35723, Start Num: 148

Candidate Starts for Adzzy\_57:

(Start: 148 @36490 has 548 MA's), (Start: 157 @36430 has 2 MA's), (159, 36421), (167, 36364), (197, 36169), (206, 36130), (210, 36103), (227, 35998), (228, 35995), (232, 35977), (243, 35908), (244, 35905), (246, 35896), (249, 35878), (251, 35872), (262, 35812),

Gene: Agape74\_58 Start: 38177, Stop: 37407, Start Num: 148

Candidate Starts for Agape74\_58:

(23, 38405), (Start: 148 @38177 has 548 MA's), (Start: 157 @38117 has 2 MA's), (167, 38051), (170, 37994), (173, 37991), (206, 37817), (221, 37727), (236, 37634), (246, 37580), (249, 37562), (251,

37556),

Gene: AgentM\_47 Start: 36044, Stop: 35274, Start Num: 145

Candidate Starts for AgentM\_47:

(Start: 145 @36044 has 36 MA's), (164, 35939), (167, 35918), (173, 35858), (193, 35750), (202, 35708), (216, 35624), (234, 35528), (249, 35432), (251, 35426),

Gene: Aglet\_59 Start: 37703, Stop: 36936, Start Num: 148

Candidate Starts for Aglet\_59:

(Start: 148 @37703 has 548 MA's), (164, 37598), (167, 37577), (173, 37517), (216, 37283), (230, 37202), (232, 37193), (234, 37187), (241, 37130), (246, 37109), (249, 37091), (251, 37085),

Gene: AgronaGT15\_57 Start: 37551, Stop: 36784, Start Num: 148

Candidate Starts for AgronaGT15\_57:

(Start: 148 @37551 has 548 MA's), (164, 37446), (167, 37425), (173, 37365), (216, 37131), (230, 37050), (232, 37041), (234, 37035), (241, 36978), (246, 36957), (249, 36939), (251, 36933),

Gene: Airmid\_49 Start: 36203, Stop: 35433, Start Num: 145

Candidate Starts for Airmid\_49:

(Start: 145 @36203 has 36 MA's), (164, 36098), (167, 36077), (173, 36017), (193, 35909), (197, 35882), (206, 35846), (234, 35687), (235, 35669), (249, 35591), (251, 35585), (261, 35528), (263, 35519),

Gene: Alatin\_43 Start: 33664, Stop: 32900, Start Num: 148

Candidate Starts for Alatin\_43:

(82, 33820), (87, 33796), (111, 33748), (116, 33736), (130, 33706), (Start: 145 @33670 has 36 MA's), (Start: 148 @33664 has 548 MA's), (Start: 157 @33604 has 2 MA's), (173, 33478), (203, 33319), (204, 33313), (234, 33148), (247, 33067), (249, 33055), (251, 33049), (261, 32992), (263, 32983), (268, 32956), (277, 32905),

Gene: Albee\_52 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Albee\_52:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Alberto7\_52 Start: 37434, Stop: 36682, Start Num: 151

Candidate Starts for Alberto7\_52:

(Start: 117 @37449 has 107 MA's), (Start: 151 @37434 has 9 MA's), (159, 37380), (164, 37344), (167, 37323), (197, 37128), (232, 36939), (234, 36933), (249, 36837), (251, 36831),

Gene: Aliter\_56 Start: 37609, Stop: 36839, Start Num: 148

Candidate Starts for Aliter\_56:

(Start: 148 @37609 has 548 MA's), (159, 37540), (167, 37483), (188, 37348), (198, 37285), (206, 37249), (210, 37222), (222, 37153), (228, 37114), (229, 37108), (233, 37093), (234, 37090), (246, 37012), (249, 36994), (251, 36988), (272, 36868),

Gene: Alma\_56 Start: 37789, Stop: 37019, Start Num: 148

Candidate Starts for Alma\_56:

(62, 38026), (76, 37969), (Start: 148 @37789 has 548 MA's), (159, 37720), (167, 37663), (186, 37534), (198, 37465), (206, 37429), (210, 37402), (228, 37294), (229, 37288), (233, 37273), (234, 37270), (246, 37192), (249, 37174), (251, 37168), (272, 37048),

Gene: Alpacados\_43 Start: 33569, Stop: 32805, Start Num: 148

Candidate Starts for Alpacados\_43:

(82, 33725), (87, 33701), (96, 33680), (111, 33653), (130, 33611), (Start: 145 @33575 has 36 MA's), (Start: 148 @33569 has 548 MA's), (Start: 157 @33509 has 2 MA's), (173, 33383), (203, 33224), (204, 33218), (234, 33053), (249, 32960), (251, 32954), (261, 32897), (263, 32888), (268, 32861), (277, 32810),

Gene: Alsfro\_55 Start: 37727, Stop: 36960, Start Num: 148

Candidate Starts for Alsfro\_55:

(Start: 148 @37727 has 548 MA's), (155, 37691), (Start: 157 @37667 has 2 MA's), (164, 37622), (173, 37541), (181, 37505), (188, 37466), (204, 37376), (208, 37349), (219, 37289), (221, 37280), (232, 37217), (246, 37133), (249, 37115), (251, 37109), (259, 37064), (261, 37052),

Gene: Altman\_54 Start: 38319, Stop: 37552, Start Num: 148

Candidate Starts for Altman\_54:

(94, 38442), (Start: 148 @38319 has 548 MA's), (Start: 157 @38259 has 2 MA's), (164, 38214), (173, 38133), (181, 38097), (188, 38058), (204, 37968), (208, 37941), (219, 37881), (221, 37872), (232, 37809), (246, 37725), (249, 37707), (251, 37701), (259, 37656), (261, 37644),

Gene: Alvin\_51 Start: 38003, Stop: 37236, Start Num: 148

Candidate Starts for Alvin\_51:

(Start: 148 @38003 has 548 MA's), (Start: 157 @37943 has 2 MA's), (164, 37898), (173, 37817), (181, 37781), (188, 37742), (204, 37652), (208, 37625), (219, 37565), (221, 37556), (232, 37493), (241, 37430), (246, 37409), (249, 37391), (251, 37385), (259, 37340), (261, 37328),

Gene: Amabiko\_71 Start: 52317, Stop: 53078, Start Num: 144

Candidate Starts for Amabiko\_71:

(133, 52287), (134, 52290), (Start: 144 @52317 has 59 MA's), (150, 52329), (156, 52380), (Start: 157 @52383 has 2 MA's), (161, 52401), (192, 52617), (209, 52707), (224, 52800), (235, 52857), (248, 52923), (254, 52941),

Gene: Anaysia\_61 Start: 36797, Stop: 36033, Start Num: 148

Candidate Starts for Anaysia\_61:

(104, 36893), (106, 36887), (127, 36842), (Start: 148 @36797 has 548 MA's), (184, 36560), (206, 36443), (228, 36308), (234, 36284), (246, 36206), (249, 36188), (251, 36182), (262, 36122), (266, 36101),

Gene: Anedea\_68 Start: 51894, Stop: 52649, Start Num: 144

Candidate Starts for Anedea\_68:

(Start: 144 @51894 has 59 MA's), (150, 51903), (156, 51954), (162, 51978), (192, 52191), (220, 52344), (248, 52497),

Gene: Aneem\_56 Start: 37123, Stop: 36356, Start Num: 148

Candidate Starts for Aneem\_56:

(137, 37135), (Start: 148 @37123 has 548 MA's), (159, 37054), (167, 36997), (186, 36868), (190, 36841), (192, 36832), (210, 36736), (227, 36631), (243, 36541), (246, 36529), (249, 36511), (251, 36505), (261, 36448), (266, 36424),

Gene: Angela\_66 Start: 51355, Stop: 52110, Start Num: 144

Candidate Starts for Angela\_66:

(Start: 144 @51355 has 59 MA's), (150, 51364), (153, 51379), (156, 51415), (161, 51436), (162, 51439), (220, 51805), (248, 51958), (250, 51964),

Gene: AngryOrchard\_42 Start: 33471, Stop: 32695, Start Num: 140

Candidate Starts for AngryOrchard\_42:

(84, 33603), (136, 33477), (Start: 140 @33471 has 1 MA's), (Start: 148 @33459 has 548 MA's), (Start: 157 @33399 has 2 MA's), (173, 33273), (203, 33114), (204, 33108), (234, 32943), (235, 32925), (243, 32880), (249, 32850), (251, 32844), (261, 32787), (263, 32778), (268, 32751), (277, 32700),

Gene: AnnaL29\_58 Start: 38734, Stop: 37964, Start Num: 148

Candidate Starts for AnnaL29\_58:

(23, 38962), (Start: 148 @38734 has 548 MA's), (167, 38608), (173, 38548), (205, 38377), (221, 38284), (232, 38221), (233, 38218), (234, 38215), (236, 38191), (249, 38119), (251, 38113),

Gene: Annadreamy\_46 Start: 41195, Stop: 42010, Start Num: 149

Candidate Starts for Annadreamy\_46:

(Start: 140 @41180 has 1 MA's), (Start: 149 @41195 has 23 MA's), (162, 41270), (182, 41489), (184, 41501), (194, 41561), (199, 41585), (204, 41606), (212, 41654), (239, 41810), (246, 41834), (254, 41873), (259, 41903), (265, 41936), (267, 41945), (272, 41981),

Gene: Annyong\_52 Start: 37157, Stop: 36390, Start Num: 117

Candidate Starts for Annyong\_52:

(Start: 117 @37157 has 107 MA's), (Start: 151 @37142 has 9 MA's), (159, 37088), (164, 37052), (167, 37031), (232, 36647), (234, 36641), (249, 36545), (251, 36539),

Gene: Anon\_58 Start: 36322, Stop: 35558, Start Num: 148

Candidate Starts for Anon\_58:

(Start: 148 @36322 has 548 MA's), (184, 36085), (228, 35833), (234, 35809), (246, 35731), (249, 35713), (251, 35707), (262, 35647),

Gene: Anselm\_57 Start: 38087, Stop: 37317, Start Num: 148

Candidate Starts for Anselm\_57:

(Start: 148 @38087 has 548 MA's), (Start: 157 @38027 has 2 MA's), (164, 37982), (167, 37961), (170, 37904), (173, 37901), (206, 37727), (221, 37637), (233, 37571), (234, 37568), (236, 37544), (249, 37472), (251, 37466),

Gene: Anthony\_51 Start: 35283, Stop: 34516, Start Num: 148

Candidate Starts for Anthony\_51:

(88, 35412), (101, 35385), (Start: 148 @35283 has 548 MA's), (164, 35178), (167, 35157), (173, 35097), (195, 34980), (229, 34785), (234, 34767), (239, 34722), (246, 34689), (249, 34671), (251, 34665), (263, 34599), (269, 34569),

Gene: Anubis\_61 Start: 37589, Stop: 36822, Start Num: 148

Candidate Starts for Anubis\_61:

(Start: 148 @37589 has 548 MA's), (164, 37484), (167, 37463), (173, 37403), (216, 37169), (230, 37088), (232, 37079), (234, 37073), (241, 37016), (246, 36995), (249, 36977), (251, 36971),

Gene: AppleCloud\_41 Start: 33400, Stop: 32630, Start Num: 145

Candidate Starts for AppleCloud\_41:

(Start: 145 @33400 has 36 MA's), (Start: 148 @33394 has 548 MA's), (152, 33376), (173, 33208), (203, 33049), (204, 33043), (232, 32884), (234, 32878), (249, 32785), (251, 32779), (261, 32722), (263, 32713), (268, 32686), (277, 32635),

Gene: Aragog\_47 Start: 36064, Stop: 35294, Start Num: 145

Candidate Starts for Aragog\_47:

(Start: 145 @36064 has 36 MA's), (164, 35959), (167, 35938), (173, 35878), (193, 35770), (202, 35728), (216, 35644), (234, 35548), (249, 35452), (251, 35446),

Gene: ArcherNM\_51 Start: 37744, Stop: 36974, Start Num: 148

Candidate Starts for ArcherNM\_51:

(Start: 148 @37744 has 548 MA's), (167, 37618), (206, 37384), (210, 37357), (221, 37294), (232, 37231), (233, 37228), (234, 37225), (236, 37201), (244, 37156), (249, 37129), (251, 37123),

Gene: Archetta\_47 Start: 36474, Stop: 35704, Start Num: 145

Candidate Starts for Archetta\_47:

(Start: 145 @36474 has 36 MA's), (164, 36369), (167, 36348), (173, 36288), (193, 36180), (202, 36138), (216, 36054), (234, 35958), (249, 35862), (251, 35856),

Gene: Arissanae\_55 Start: 38301, Stop: 37531, Start Num: 148

Candidate Starts for Arissanae\_55:

(119, 38367), (Start: 148 @38301 has 548 MA's), (159, 38232), (167, 38175), (210, 37914), (228, 37806), (229, 37800), (233, 37785), (234, 37782), (246, 37704), (249, 37686), (251, 37680), (272, 37560),

Gene: Arlo\_49 Start: 36856, Stop: 36089, Start Num: 148

Candidate Starts for Arlo\_49:

(Start: 148 @36856 has 548 MA's), (155, 36820), (Start: 157 @36796 has 2 MA's), (164, 36751), (173, 36670), (181, 36634), (188, 36595), (204, 36505), (208, 36478), (219, 36418), (221, 36409), (232, 36346), (246, 36262), (249, 36244), (251, 36238), (259, 36193), (261, 36181),

Gene: Artemis2UCLA\_58 Start: 36665, Stop: 35895, Start Num: 148

Candidate Starts for Artemis2UCLA\_58:

(Start: 129 @36710 has 1 MA's), (Start: 148 @36665 has 548 MA's), (156, 36608), (160, 36593), (167, 36539), (170, 36482), (173, 36479), (221, 36215), (232, 36152), (234, 36146), (249, 36050), (251, 36044), (269, 35948), (271, 35939),

Gene: Arturo\_51 Start: 37384, Stop: 36617, Start Num: 117

Candidate Starts for Arturo\_51:

(Start: 117 @37384 has 107 MA's), (Start: 151 @37369 has 9 MA's), (159, 37315), (164, 37279), (167, 37258), (197, 37063), (232, 36874), (234, 36868), (249, 36772), (251, 36766),

Gene: Ashballer\_53 Start: 38347, Stop: 37580, Start Num: 148

Candidate Starts for Ashballer\_53:

(Start: 148 @38347 has 548 MA's), (152, 38329), (154, 38317), (167, 38221), (188, 38089), (200, 38020), (205, 37993), (219, 37909), (234, 37831), (237, 37804), (241, 37774), (242, 37771), (248, 37738), (249, 37735), (255, 37705),

Gene: Astro\_53 Start: 35969, Stop: 35202, Start Num: 148

Candidate Starts for Astro\_53:

(89, 36098), (Start: 148 @35969 has 548 MA's), (Start: 157 @35909 has 2 MA's), (159, 35900), (167, 35843), (186, 35714), (214, 35564), (229, 35471), (234, 35453), (244, 35384), (246, 35375), (249, 35357), (251, 35351), (262, 35291), (266, 35270),

Gene: Atkinbua\_54 Start: 37979, Stop: 37212, Start Num: 148

Candidate Starts for Atkinbua\_54:

(Start: 148 @37979 has 548 MA's), (155, 37943), (167, 37853), (188, 37721), (200, 37652), (205, 37625), (219, 37541), (234, 37460), (249, 37367), (259, 37316), (263, 37295),

Gene: AugsMagnumOpus\_61 Start: 37694, Stop: 36927, Start Num: 148

Candidate Starts for AugsMagnumOpus\_61:

(Start: 148 @37694 has 548 MA's), (164, 37589), (167, 37568), (173, 37508), (230, 37193), (232, 37184), (234, 37178), (241, 37121), (246, 37100), (249, 37082), (251, 37076),

Gene: AvatarAhPeg\_50 Start: 36897, Stop: 36130, Start Num: 117

Candidate Starts for AvatarAhPeg\_50:

(Start: 117 @36897 has 107 MA's), (Start: 151 @36882 has 9 MA's), (159, 36828), (167, 36771), (197, 36576), (232, 36387), (234, 36381), (249, 36285), (251, 36279),

Gene: Avle17\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Avle17\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: B1\_50 Start: 35689, Stop: 34922, Start Num: 148

Candidate Starts for B1\_50:

(79, 35746), (Start: 148 @35689 has 548 MA's), (164, 35584), (167, 35563), (173, 35503), (214, 35284), (233, 35176), (234, 35173), (241, 35116), (249, 35077), (277, 34927),

Gene: BABullseye\_51 Start: 34247, Stop: 33477, Start Num: 148

Candidate Starts for BABullseye\_51:

(Start: 148 @34247 has 548 MA's), (156, 34190), (167, 34121), (170, 34064), (173, 34061), (221, 33797), (232, 33734), (234, 33728), (249, 33632), (251, 33626), (269, 33530), (271, 33521),

Gene: BK1\_47 Start: 36206, Stop: 35439, Start Num: 148

Candidate Starts for BK1\_47:

(Start: 148 @36206 has 548 MA's), (155, 36170), (Start: 157 @36146 has 2 MA's), (164, 36101), (173, 36020), (181, 35984), (188, 35945), (204, 35855), (208, 35828), (219, 35768), (221, 35759), (232, 35696), (246, 35612), (249, 35594), (251, 35588), (259, 35543), (261, 35531),

Gene: Baby16\_52 Start: 37123, Stop: 36356, Start Num: 117

Candidate Starts for Baby16\_52:

(Start: 117 @37123 has 107 MA's), (Start: 151 @37108 has 9 MA's), (159, 37054), (164, 37018), (167, 36997), (197, 36802), (232, 36613), (234, 36607), (249, 36511), (251, 36505),

Gene: BabyBack\_54 Start: 38373, Stop: 37603, Start Num: 148

Candidate Starts for BabyBack\_54:

(Start: 148 @38373 has 548 MA's), (167, 38247), (173, 38187), (174, 38184), (221, 37923), (232, 37860), (233, 37857), (234, 37854), (235, 37836), (236, 37830), (241, 37797), (244, 37785), (249, 37758), (251, 37752),

Gene: BabyRay\_55 Start: 37459, Stop: 36692, Start Num: 148

Candidate Starts for BabyRay\_55:

(79, 37537), (Start: 148 @37459 has 548 MA's), (167, 37333), (173, 37273), (214, 37054), (234, 36943), (241, 36886), (246, 36865), (249, 36847), (277, 36697),

Gene: Bachome\_57 Start: 37103, Stop: 36336, Start Num: 148

Candidate Starts for Bachome\_57:

(137, 37115), (Start: 148 @37103 has 548 MA's), (159, 37034), (167, 36977), (186, 36848), (190, 36821), (192, 36812), (210, 36716), (227, 36611), (243, 36521), (246, 36509), (249, 36491), (251, 36485), (261, 36428), (266, 36404),

Gene: Backyardigan\_50 Start: 37091, Stop: 36324, Start Num: 148

Candidate Starts for Backyardigan\_50:

(Start: 148 @37091 has 548 MA's), (Start: 151 @37076 has 9 MA's), (159, 37022), (167, 36965), (173, 36905), (234, 36575), (249, 36479), (251, 36473), (262, 36413),

Gene: Bactobuster\_55 Start: 38687, Stop: 37917, Start Num: 148

Candidate Starts for Bactobuster\_55:

(23, 38915), (Start: 148 @38687 has 548 MA's), (167, 38561), (173, 38501), (184, 38447), (221, 38237), (233, 38171), (234, 38168), (236, 38144), (244, 38099), (249, 38072), (251, 38066),

Gene: Badger\_50 Start: 37059, Stop: 36292, Start Num: 148

Candidate Starts for Badger\_50:

(Start: 148 @37059 has 548 MA's), (Start: 151 @37044 has 9 MA's), (159, 36990), (167, 36933), (173, 36873), (234, 36543), (249, 36447), (251, 36441), (262, 36381),

Gene: Baehexic\_55 Start: 37856, Stop: 37086, Start Num: 148

Candidate Starts for Baehexic\_55:

(23, 38078), (Start: 148 @37856 has 548 MA's), (167, 37730), (170, 37673), (173, 37670), (174, 37667), (221, 37406), (232, 37343), (233, 37340), (234, 37337), (236, 37313), (249, 37241), (251, 37235),

Gene: BangNhom\_53 Start: 37548, Stop: 36781, Start Num: 117

Candidate Starts for BangNhom\_53:

(Start: 117 @37548 has 107 MA's), (Start: 151 @37533 has 9 MA's), (159, 37479), (164, 37443), (167, 37422), (173, 37362), (197, 37227), (232, 37038), (234, 37032), (249, 36936), (251, 36930),

Gene: Barriga\_52 Start: 37112, Stop: 36345, Start Num: 148

Candidate Starts for Barriga\_52:

(Start: 148 @37112 has 548 MA's), (152, 37094), (153, 37091), (Start: 157 @37052 has 2 MA's), (177, 36905), (203, 36767), (210, 36728), (219, 36674), (232, 36602), (233, 36599), (234, 36596), (236, 36572), (244, 36527), (246, 36518), (249, 36500), (251, 36494), (259, 36449),

Gene: Bartholomune\_67 Start: 51613, Stop: 52374, Start Num: 144

Candidate Starts for Bartholomune\_67:

(Start: 144 @51613 has 59 MA's), (150, 51625), (156, 51676), (204, 51973), (224, 52096), (231, 52123), (235, 52153), (236, 52159), (248, 52219), (254, 52237), (276, 52360),

Gene: Bartimeaus\_52 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Bartimeaus\_52:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Battleship\_63 Start: 37003, Stop: 36239, Start Num: 148

Candidate Starts for Battleship\_63:

(104, 37099), (106, 37093), (127, 37048), (Start: 148 @37003 has 548 MA's), (Start: 157 @36946 has 2 MA's), (184, 36766), (206, 36649), (228, 36514), (234, 36490), (246, 36412), (249, 36394), (251, 36388), (262, 36328), (266, 36307),

Gene: Battuta\_69 Start: 52291, Stop: 53052, Start Num: 144

Candidate Starts for Battuta\_69:

(133, 52261), (134, 52264), (Start: 144 @52291 has 59 MA's), (150, 52303), (156, 52354), (Start: 157 @52357 has 2 MA's), (161, 52375), (192, 52591), (209, 52681), (224, 52774), (235, 52831), (248, 52897), (254, 52915),

Gene: Beatrix\_51 Start: 38827, Stop: 38060, Start Num: 148

Candidate Starts for Beatrix\_51:

(Start: 148 @38827 has 548 MA's), (155, 38791), (Start: 157 @38767 has 2 MA's), (164, 38722), (173, 38641), (181, 38605), (188, 38566), (204, 38476), (208, 38449), (219, 38389), (221, 38380), (232, 38317), (246, 38233), (249, 38215), (251, 38209), (259, 38164), (261, 38152),

Gene: Beauxregard13\_58 Start: 37706, Stop: 36939, Start Num: 148

Candidate Starts for Beauxregard13\_58:

(Start: 148 @37706 has 548 MA's), (164, 37601), (167, 37580), (173, 37520), (216, 37286), (230, 37205), (232, 37196), (234, 37190), (241, 37133), (246, 37112), (249, 37094), (251, 37088),

Gene: Beemo\_56 Start: 37779, Stop: 37009, Start Num: 148

Candidate Starts for Beemo\_56:

(Start: 148 @37779 has 548 MA's), (159, 37710), (167, 37653), (198, 37455), (206, 37419), (210, 37392), (222, 37323), (228, 37284), (229, 37278), (233, 37263), (234, 37260), (246, 37182), (249, 37164), (251, 37158), (272, 37038),

Gene: BeesKnees\_54 Start: 37884, Stop: 37117, Start Num: 148

Candidate Starts for BeesKnees\_54:

(Start: 148 @37884 has 548 MA's), (155, 37848), (Start: 157 @37824 has 2 MA's), (164, 37779), (173, 37698), (181, 37662), (188, 37623), (204, 37533), (208, 37506), (219, 37446), (221, 37437), (232, 37374), (246, 37290), (249, 37272), (251, 37266), (259, 37221), (261, 37209),

Gene: Belenaria\_44 Start: 33536, Stop: 32766, Start Num: 145

Candidate Starts for Belenaria\_44:

(82, 33686), (87, 33662), (111, 33614), (116, 33602), (130, 33572), (Start: 145 @33536 has 36 MA's), (Start: 148 @33530 has 548 MA's), (Start: 157 @33470 has 2 MA's), (173, 33344), (203, 33185), (204, 33179), (234, 33014), (247, 32933), (249, 32921), (251, 32915), (261, 32858), (263, 32849), (268, 32822), (277, 32771),

Gene: Belfort\_50 Start: 43716, Stop: 44531, Start Num: 149

Candidate Starts for Belfort\_50:

(Start: 140 @43701 has 1 MA's), (142, 43704), (Start: 149 @43716 has 23 MA's), (162, 43791), (191, 44070), (192, 44073), (194, 44082), (204, 44127), (207, 44139), (232, 44280), (239, 44331), (248, 44370), (254, 44394),

Gene: BellusTerra\_53 Start: 37113, Stop: 36346, Start Num: 117

Candidate Starts for BellusTerra\_53:

(Start: 117 @37113 has 107 MA's), (Start: 151 @37098 has 9 MA's), (159, 37044), (164, 37008), (167, 36987), (197, 36792), (232, 36603), (234, 36597), (249, 36501), (251, 36495),

Gene: Benedict\_52 Start: 36430, Stop: 35660, Start Num: 148

Candidate Starts for Benedict\_52:

(Start: 148 @36430 has 548 MA's), (164, 36325), (167, 36304), (173, 36244), (193, 36136), (197, 36109), (206, 36073), (234, 35914), (249, 35818), (251, 35812), (263, 35746),

Gene: BengiVuitton\_58 Start: 38295, Stop: 37525, Start Num: 148

Candidate Starts for BengiVuitton\_58:

(23, 38523), (Start: 148 @38295 has 548 MA's), (Start: 157 @38235 has 2 MA's), (164, 38190), (167, 38169), (170, 38112), (173, 38109), (197, 37974), (221, 37845), (233, 37779), (234, 37776), (236, 37752), (249, 37680), (251, 37674), (263, 37608),

Gene: Benvolio\_53 Start: 37111, Stop: 36341, Start Num: 148

Candidate Starts for Benvolio\_53:

(Start: 148 @37111 has 548 MA's), (167, 36985), (170, 36928), (173, 36925), (222, 36655), (232, 36598), (233, 36595), (234, 36592), (236, 36568), (240, 36538), (249, 36496), (251, 36490),

Gene: Beuffert\_47 Start: 42336, Stop: 43151, Start Num: 149

Candidate Starts for Beuffert\_47:

(138, 42315), (Start: 140 @42321 has 1 MA's), (Start: 149 @42336 has 23 MA's), (162, 42411), (184, 42642), (185, 42645), (194, 42702), (199, 42726), (204, 42747), (212, 42795), (239, 42951), (267, 43086),

Gene: Bexan\_50 Start: 38500, Stop: 37733, Start Num: 148

Candidate Starts for Bexan\_50:

(Start: 148 @38500 has 548 MA's), (152, 38482), (154, 38470), (167, 38374), (188, 38242), (200, 38173), (205, 38146), (219, 38062), (234, 37984), (237, 37957), (241, 37927), (242, 37924), (248, 37891), (249, 37888), (255, 37858),

Gene: BiancaTri92\_56 Start: 38497, Stop: 37727, Start Num: 65

Candidate Starts for BiancaTri92\_56:

(23, 38671), (Start: 65 @38497 has 2 MA's), (167, 38371), (170, 38314), (173, 38311), (206, 38137), (221, 38047), (236, 37954), (244, 37909), (246, 37900), (249, 37882), (251, 37876),

Gene: BigMau\_52 Start: 37110, Stop: 36343, Start Num: 148

Candidate Starts for BigMau\_52:

(Start: 148 @37110 has 548 MA's), (155, 37074), (Start: 157 @37050 has 2 MA's), (164, 37005), (173, 36924), (181, 36888), (188, 36849), (204, 36759), (208, 36732), (219, 36672), (221, 36663), (232, 36600), (246, 36516), (249, 36498), (251, 36492), (259, 36447), (261, 36435),

Gene: BigPaolini\_51 Start: 36269, Stop: 35502, Start Num: 148

Candidate Starts for BigPaolini\_51:

(Start: 148 @36269 has 548 MA's), (Start: 157 @36209 has 2 MA's), (164, 36164), (173, 36083), (181, 36047), (188, 36008), (204, 35918), (208, 35891), (219, 35831), (221, 35822), (232, 35759), (246, 35675), (249, 35657), (251, 35651), (259, 35606), (261, 35594),

Gene: Bigfoot\_47 Start: 36490, Stop: 35723, Start Num: 148

Candidate Starts for Bigfoot\_47:

(Start: 148 @36490 has 548 MA's), (155, 36454), (Start: 157 @36430 has 2 MA's), (164, 36385), (173, 36304), (181, 36268), (188, 36229), (204, 36139), (208, 36112), (219, 36052), (221, 36043), (232, 35980), (246, 35896), (249, 35878), (251, 35872), (259, 35827), (261, 35815),

Gene: BillKnuckles\_52 Start: 38391, Stop: 37624, Start Num: 148

Candidate Starts for BillKnuckles\_52:

(19, 38817), (27, 38751), (58, 38634), (Start: 148 @38391 has 548 MA's), (152, 38373), (154, 38361), (167, 38265), (188, 38133), (200, 38064), (205, 38037), (210, 38007), (219, 37953), (234, 37875), (237, 37848), (241, 37818), (242, 37815), (248, 37782), (249, 37779), (255, 37749),

Gene: BillNye\_45 Start: 45209, Stop: 46033, Start Num: 146

Candidate Starts for BillNye\_45:

(Start: 146 @45209 has 4 MA's), (162, 45293), (164, 45317), (194, 45584), (199, 45608), (204, 45629), (212, 45677), (237, 45815), (239, 45833), (248, 45872), (254, 45896), (264, 45950), (265, 45959), (272, 46004),

Gene: Birchlyn\_68 Start: 50174, Stop: 50935, Start Num: 144

Candidate Starts for Birchlyn\_68:

(133, 50144), (134, 50147), (Start: 144 @50174 has 59 MA's), (150, 50186), (156, 50237), (Start: 157 @50240 has 2 MA's), (161, 50258), (192, 50474), (209, 50564), (224, 50657), (235, 50714), (248, 50780), (254, 50798),

Gene: Blackmoor\_52 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Blackmoor\_52:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Blinn1\_60 Start: 36683, Stop: 35913, Start Num: 148

Candidate Starts for Blinn1\_60:

(91, 36809), (112, 36767), (114, 36764), (Start: 148 @36683 has 548 MA's), (160, 36611), (167, 36557), (170, 36500), (173, 36497), (221, 36233), (232, 36170), (234, 36164), (244, 36095), (249, 36068), (251, 36062), (269, 35966), (271, 35957),

Gene: BluSpix\_51 Start: 34050, Stop: 33283, Start Num: 148

Candidate Starts for BluSpix\_51:

(Start: 148 @34050 has 548 MA's), (152, 34032), (154, 34020), (167, 33924), (188, 33792), (200, 33723), (205, 33696), (219, 33612), (234, 33534), (237, 33507), (241, 33477), (242, 33474), (248, 33441), (249, 33438), (255, 33408),

Gene: Blue7\_59 Start: 36765, Stop: 35995, Start Num: 148

Candidate Starts for Blue7\_59:

(Start: 129 @36801 has 1 MA's), (Start: 148 @36765 has 548 MA's), (156, 36708), (160, 36693), (167, 36639), (170, 36582), (173, 36579), (174, 36576), (221, 36315), (234, 36246), (249, 36150), (251, 36144), (262, 36084), (271, 36039),

Gene: BlueBird\_57 Start: 37521, Stop: 36754, Start Num: 148

Candidate Starts for BlueBird\_57:

(79, 37578), (Start: 148 @37521 has 548 MA's), (164, 37416), (167, 37395), (173, 37335), (214, 37116), (234, 37005), (241, 36948), (246, 36927), (249, 36909),

Gene: BlueOtter\_71 Start: 52993, Stop: 53748, Start Num: 144

Candidate Starts for BlueOtter\_71:

(Start: 144 @52993 has 59 MA's), (150, 53002), (156, 53053), (161, 53074), (162, 53077), (192, 53290), (202, 53335), (207, 53362), (220, 53443), (231, 53500), (248, 53596),

Gene: Blueeyedbeauty\_48 Start: 41707, Stop: 42522, Start Num: 149

Candidate Starts for Blueeyedbeauty\_48:

(138, 41686), (Start: 140 @41692 has 1 MA's), (Start: 149 @41707 has 23 MA's), (161, 41779), (162, 41782), (184, 42013), (194, 42073), (199, 42097), (204, 42118), (212, 42166), (239, 42322), (245, 42340), (272, 42493),

Gene: Bluefalcon\_47 Start: 36619, Stop: 35849, Start Num: 145

Candidate Starts for Bluefalcon\_47:

(Start: 145 @36619 has 36 MA's), (164, 36514), (167, 36493), (173, 36433), (193, 36325), (202, 36283), (216, 36199), (234, 36103), (248, 36010), (249, 36007), (251, 36001), (261, 35944),

Gene: Bmoc\_67 Start: 51698, Stop: 52453, Start Num: 144

Candidate Starts for Bmoc\_67:

(Start: 144 @51698 has 59 MA's), (150, 51707), (153, 51722), (156, 51758), (161, 51779), (162, 51782), (192, 51995), (199, 52031), (209, 52085), (220, 52148), (232, 52211), (244, 52277), (248, 52301), (269, 52400),

Gene: Bob3\_49 Start: 36460, Stop: 35693, Start Num: 148

Candidate Starts for Bob3\_49:

(Start: 148 @36460 has 548 MA's), (155, 36424), (Start: 157 @36400 has 2 MA's), (164, 36355), (173, 36274), (181, 36238), (188, 36199), (204, 36109), (208, 36082), (219, 36022), (221, 36013), (232, 35950), (246, 35866), (249, 35848), (251, 35842), (259, 35797), (261, 35785),

Gene: BobSwaget\_52 Start: 36590, Stop: 35820, Start Num: 148

Candidate Starts for BobSwaget\_52:

(Start: 148 @36590 has 548 MA's), (167, 36464), (170, 36407), (184, 36350), (188, 36329), (210, 36203), (221, 36140), (232, 36077), (236, 36047), (249, 35975), (251, 35969), (261, 35912),

Gene: BobbyDazzler\_44 Start: 33649, Stop: 32879, Start Num: 145

Candidate Starts for BobbyDazzler\_44:

(82, 33799), (87, 33775), (96, 33754), (111, 33727), (130, 33685), (Start: 145 @33649 has 36 MA's), (Start: 148 @33643 has 548 MA's), (Start: 157 @33583 has 2 MA's), (173, 33457), (203, 33298), (204, 33292), (234, 33127), (249, 33034), (251, 33028), (261, 32971), (263, 32962), (277, 32884),

Gene: BogosyJay\_55 Start: 37494, Stop: 36724, Start Num: 148

Candidate Starts for BogosyJay\_55:

(Start: 148 @37494 has 548 MA's), (159, 37425), (167, 37368), (180, 37275), (198, 37170), (210, 37107), (228, 36999), (229, 36993), (233, 36978), (234, 36975), (246, 36897), (249, 36879), (251, 36873), (272, 36753),

Gene: Bombshell\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Bombshell\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Bonamassa\_48 Start: 36460, Stop: 35690, Start Num: 148

Candidate Starts for Bonamassa\_48:

(Start: 148 @36460 has 548 MA's), (164, 36355), (167, 36334), (173, 36274), (193, 36166), (197, 36139), (202, 36124), (216, 36040), (234, 35944), (249, 35848), (251, 35842), (263, 35776),

Gene: Bonanza\_44 Start: 33577, Stop: 32807, Start Num: 145

Candidate Starts for Bonanza\_44:

(82, 33727), (87, 33703), (96, 33682), (111, 33655), (130, 33613), (Start: 145 @33577 has 36 MA's), (Start: 148 @33571 has 548 MA's), (Start: 157 @33511 has 2 MA's), (173, 33385), (203, 33226), (204, 33220), (234, 33055), (249, 32962), (251, 32956), (261, 32899), (263, 32890), (268, 32863), (277, 32812),

Gene: Bones\_52 Start: 38151, Stop: 37384, Start Num: 148

Candidate Starts for Bones\_52:

(Start: 148 @38151 has 548 MA's), (152, 38133), (154, 38121), (167, 38025), (188, 37893), (200, 37824), (205, 37797), (219, 37713), (234, 37635), (237, 37608), (241, 37578), (242, 37575), (248, 37542), (249, 37539), (255, 37509),

Gene: Boohoo\_61 Start: 36797, Stop: 36033, Start Num: 148

Candidate Starts for Boohoo\_61:

(104, 36893), (106, 36887), (127, 36842), (Start: 148 @36797 has 548 MA's), (184, 36560), (206, 36443), (228, 36308), (234, 36284), (246, 36206), (249, 36188), (251, 36182), (262, 36122), (266, 36101),

Gene: BoomerJR\_71 Start: 52171, Stop: 52932, Start Num: 144

Candidate Starts for BoomerJR\_71:

(133, 52141), (134, 52144), (Start: 144 @52171 has 59 MA's), (150, 52183), (156, 52234), (Start: 157 @52237 has 2 MA's), (158, 52243), (161, 52255), (176, 52381), (235, 52711), (248, 52777), (254, 52795), (269, 52879),

Gene: Bordeaux\_69 Start: 52446, Stop: 53207, Start Num: 144

Candidate Starts for Bordeaux\_69:

(133, 52416), (134, 52419), (Start: 144 @52446 has 59 MA's), (150, 52458), (156, 52509), (Start: 157 @52512 has 2 MA's), (161, 52530), (192, 52746), (209, 52836), (224, 52929), (235, 52986), (248, 53052), (254, 53070),

Gene: Bowtie\_56 Start: 37130, Stop: 36363, Start Num: 148

Candidate Starts for Bowtie\_56:

(137, 37142), (Start: 148 @37130 has 548 MA's), (159, 37061), (167, 37004), (186, 36875), (190, 36848), (192, 36839), (210, 36743), (227, 36638), (243, 36548), (246, 36536), (249, 36518), (251, 36512), (261, 36455), (266, 36431),

Gene: Bradshaw\_44 Start: 33603, Stop: 32833, Start Num: 145

Candidate Starts for Bradshaw\_44:

(82, 33753), (87, 33729), (111, 33681), (116, 33669), (130, 33639), (Start: 145 @33603 has 36 MA's), (Start: 148 @33597 has 548 MA's), (Start: 157 @33537 has 2 MA's), (173, 33411), (203, 33252), (204, 33246), (234, 33081), (247, 33000), (249, 32988), (251, 32982), (261, 32925), (263, 32916), (268, 32889), (277, 32838),

Gene: Braelyn\_68 Start: 52380, Stop: 53141, Start Num: 144

Candidate Starts for Braelyn\_68:

(136, 52365), (Start: 144 @52380 has 59 MA's), (150, 52392), (156, 52443), (164, 52491), (224, 52863), (231, 52890), (235, 52920), (236, 52926), (248, 52986), (254, 53004),

Gene: BreSam8\_58 Start: 37696, Stop: 36929, Start Num: 148

Candidate Starts for BreSam8\_58:

(Start: 148 @37696 has 548 MA's), (164, 37591), (167, 37570), (173, 37510), (216, 37276), (230, 37195), (232, 37186), (234, 37180), (241, 37123), (246, 37102), (249, 37084), (251, 37078),

Gene: Briton15\_55 Start: 38110, Stop: 37343, Start Num: 148

Candidate Starts for Briton15\_55:

(94, 38233), (Start: 148 @38110 has 548 MA's), (155, 38074), (167, 37984), (188, 37852), (200, 37783), (205, 37756), (219, 37672), (232, 37597), (234, 37591), (249, 37498), (259, 37447), (263, 37426),

Gene: Broseidon\_52 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Broseidon\_52:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Bruiser\_51 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Bruiser\_51:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (232, 36602), (234, 36596), (249, 36500), (251, 36494), (262, 36434),

Gene: Bruns\_50 Start: 37037, Stop: 36270, Start Num: 148

Candidate Starts for Bruns\_50:

(Start: 148 @37037 has 548 MA's), (152, 37019), (154, 37007), (167, 36911), (188, 36779), (200, 36710), (205, 36683), (210, 36653), (219, 36599), (234, 36521), (237, 36494), (241, 36464), (242, 36461), (248, 36428), (249, 36425), (255, 36395),

Gene: Bryce\_43 Start: 33351, Stop: 32587, Start Num: 148

Candidate Starts for Bryce\_43:

(82, 33507), (87, 33483), (96, 33462), (111, 33435), (130, 33393), (Start: 145 @33357 has 36 MA's), (Start: 148 @33351 has 548 MA's), (Start: 157 @33291 has 2 MA's), (173, 33165), (203, 33006), (204, 33000), (234, 32835), (249, 32742), (251, 32736), (261, 32679), (263, 32670), (277, 32592),

Gene: BubbleTrouble\_51 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for BubbleTrouble\_51:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Bud\_55 Start: 36677, Stop: 35910, Start Num: 148

Candidate Starts for Bud\_55:

(137, 36689), (Start: 148 @36677 has 548 MA's), (159, 36608), (167, 36551), (186, 36422), (190, 36395), (192, 36386), (210, 36290), (227, 36185), (243, 36095), (246, 36083), (249, 36065), (251, 36059), (261, 36002), (266, 35978),

Gene: Bugsy\_58 Start: 38234, Stop: 37464, Start Num: 148

Candidate Starts for Bugsy\_58:

(23, 38462), (Start: 148 @38234 has 548 MA's), (Start: 157 @38174 has 2 MA's), (167, 38108), (170, 38051), (173, 38048), (206, 37874), (221, 37784), (236, 37691), (246, 37637), (249, 37619), (251, 37613),

Gene: Bumblebee11\_50 Start: 37061, Stop: 36294, Start Num: 148

Candidate Starts for Bumblebee11\_50:

(Start: 148 @37061 has 548 MA's), (Start: 151 @37046 has 9 MA's), (159, 36992), (167, 36935), (173, 36875), (234, 36545), (249, 36449), (251, 36443), (262, 36383),

Gene: Burger\_50 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Burger\_50:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Buttons\_50 Start: 35973, Stop: 35206, Start Num: 148

Candidate Starts for Buttons\_50:

(Start: 148 @35973 has 548 MA's), (152, 35955), (154, 35943), (167, 35847), (169, 35796), (188, 35715), (200, 35646), (205, 35619), (210, 35589), (219, 35535), (234, 35457), (237, 35430), (241, 35400), (242, 35397), (248, 35364), (249, 35361), (255, 35331),

Gene: BuzzBuzz\_56 Start: 37730, Stop: 36963, Start Num: 148

Candidate Starts for BuzzBuzz\_56:

(Start: 148 @37730 has 548 MA's), (164, 37625), (167, 37604), (173, 37544), (216, 37310), (230, 37229), (232, 37220), (234, 37214), (241, 37157), (246, 37136), (249, 37118), (251, 37112),

Gene: Bxb1\_47 Start: 36787, Stop: 36020, Start Num: 148

Candidate Starts for Bxb1\_47:

(Start: 148 @36787 has 548 MA's), (155, 36751), (Start: 157 @36727 has 2 MA's), (164, 36682), (173, 36601), (181, 36565), (188, 36526), (204, 36436), (208, 36409), (219, 36349), (221, 36340), (232, 36277), (241, 36214), (246, 36193), (249, 36175), (251, 36169), (259, 36124), (261, 36112),

Gene: Bxz2\_54 Start: 37737, Stop: 36970, Start Num: 148

Candidate Starts for Bxz2\_54:

(Start: 148 @37737 has 548 MA's), (164, 37632), (167, 37611), (173, 37551), (216, 37317), (230, 37236), (232, 37227), (234, 37221), (241, 37164), (246, 37143), (249, 37125), (251, 37119),

Gene: C3\_54 Start: 37949, Stop: 37182, Start Num: 148

Candidate Starts for C3\_54:

(Start: 148 @37949 has 548 MA's), (159, 37880), (167, 37823), (184, 37709), (186, 37694), (208, 37568), (210, 37562), (214, 37541), (227, 37457), (232, 37436), (243, 37367), (246, 37355), (249, 37337), (251, 37331),

Gene: CRB1\_60 Start: 38670, Stop: 37900, Start Num: 148

Candidate Starts for CRB1\_60:

(23, 39069), (79, 38838), (105, 38757), (Start: 148 @38670 has 548 MA's), (Start: 157 @38610 has 2 MA's), (167, 38544), (170, 38487), (173, 38484), (184, 38430), (188, 38409), (221, 38220), (232, 38157), (236, 38127), (249, 38055), (251, 38049),

Gene: CactusRose\_49 Start: 36985, Stop: 36218, Start Num: 148

Candidate Starts for CactusRose\_49:

(Start: 148 @36985 has 548 MA's), (155, 36949), (Start: 157 @36925 has 2 MA's), (164, 36880), (173, 36799), (181, 36763), (188, 36724), (204, 36634), (208, 36607), (219, 36547), (221, 36538), (232, 36475), (246, 36391), (249, 36373), (251, 36367), (259, 36322), (261, 36310),

Gene: Caelakin\_52 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Caelakin\_52:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Camperdownii\_50 Start: 36786, Stop: 36019, Start Num: 117

Candidate Starts for Camperdownii\_50:

(Start: 117 @36786 has 107 MA's), (Start: 151 @36771 has 9 MA's), (159, 36717), (164, 36681), (167, 36660), (197, 36465), (232, 36276), (234, 36270), (249, 36174), (251, 36168),

Gene: Candra\_57 Start: 36605, Stop: 35835, Start Num: 148

Candidate Starts for Candra\_57:

(Start: 129 @36650 has 1 MA's), (Start: 148 @36605 has 548 MA's), (156, 36548), (160, 36533), (164, 36500), (167, 36479), (170, 36422), (173, 36419), (221, 36155), (232, 36092), (234, 36086), (249, 35990), (251, 35984), (269, 35888), (271, 35879),

Gene: Caraxes\_56 Start: 36199, Stop: 35432, Start Num: 148

Candidate Starts for Caraxes\_56:

(Start: 148 @36199 has 548 MA's), (164, 36094), (167, 36073), (186, 35944), (206, 35839), (210, 35812), (222, 35743), (227, 35707), (232, 35686), (243, 35617), (246, 35605), (249, 35587), (251, 35581), (261, 35524), (262, 35521),

Gene: Carlyle\_50 Start: 35482, Stop: 34715, Start Num: 148

Candidate Starts for Carlyle\_50:

(Start: 148 @35482 has 548 MA's), (155, 35446), (Start: 157 @35422 has 2 MA's), (164, 35377), (173, 35296), (181, 35260), (188, 35221), (204, 35131), (208, 35104), (219, 35044), (221, 35035), (232, 34972), (246, 34888), (249, 34870), (251, 34864), (259, 34819), (261, 34807),

Gene: Catalina\_57 Start: 37682, Stop: 36912, Start Num: 148

Candidate Starts for Catalina\_57:

(Start: 148 @37682 has 548 MA's), (159, 37613), (167, 37556), (188, 37421), (198, 37358), (206, 37322), (210, 37295), (222, 37226), (228, 37187), (229, 37181), (233, 37166), (234, 37163), (246, 37085), (249, 37067), (251, 37061), (272, 36941),

Gene: Caviar\_54 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for Caviar\_54:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: CeilingFan\_73 Start: 52206, Stop: 52967, Start Num: 144

Candidate Starts for CeilingFan\_73:

(133, 52176), (134, 52179), (Start: 144 @52206 has 59 MA's), (150, 52218), (156, 52269), (Start: 157 @52272 has 2 MA's), (161, 52290), (192, 52506), (209, 52596), (224, 52689), (235, 52746), (248, 52812), (254, 52830),

Gene: Centaur\_57 Start: 38073, Stop: 37303, Start Num: 148

Candidate Starts for Centaur\_57:

(23, 38292), (Start: 148 @38073 has 548 MA's), (167, 37947), (170, 37890), (173, 37887), (174, 37884), (221, 37623), (232, 37560), (233, 37557), (234, 37554), (236, 37530), (249, 37458), (251, 37452),

Gene: CentreCat\_52 Start: 37115, Stop: 36348, Start Num: 117

Candidate Starts for CentreCat\_52:

(Start: 117 @37115 has 107 MA's), (Start: 151 @37100 has 9 MA's), (159, 37046), (164, 37010), (167, 36989), (197, 36794), (232, 36605), (234, 36599), (249, 36503), (251, 36497),

Gene: Cerulean\_53 Start: 37549, Stop: 36782, Start Num: 117

Candidate Starts for Cerulean\_53:

(Start: 117 @37549 has 107 MA's), (Start: 151 @37534 has 9 MA's), (159, 37480), (164, 37444), (167, 37423), (173, 37363), (197, 37228), (232, 37039), (234, 37033), (249, 36937), (251, 36931),

Gene: Chadwick\_52 Start: 36271, Stop: 35501, Start Num: 148

Candidate Starts for Chadwick\_52:

(Start: 148 @36271 has 548 MA's), (164, 36166), (167, 36145), (173, 36085), (193, 35977), (197, 35950), (202, 35935), (206, 35914), (234, 35755), (249, 35659), (251, 35653),

Gene: ChampagnePapi\_54 Start: 37548, Stop: 36781, Start Num: 117

Candidate Starts for ChampagnePapi\_54:

(Start: 117 @37548 has 107 MA's), (Start: 151 @37533 has 9 MA's), (159, 37479), (164, 37443), (167, 37422), (173, 37362), (197, 37227), (232, 37038), (234, 37032), (249, 36936), (251, 36930),

Gene: Chanagan\_48 Start: 36280, Stop: 35513, Start Num: 148

Candidate Starts for Chanagan\_48:

(Start: 148 @36280 has 548 MA's), (152, 36262), (154, 36250), (167, 36154), (188, 36022), (200, 35953), (205, 35926), (210, 35896), (219, 35842), (234, 35764), (237, 35737), (241, 35707), (242, 35704), (248, 35671), (249, 35668), (255, 35638),

Gene: Changeling\_55 Start: 38339, Stop: 37569, Start Num: 148

Candidate Starts for Changeling\_55:

(Start: 148 @38339 has 548 MA's), (164, 38234), (167, 38213), (173, 38153), (205, 37982), (221, 37889), (232, 37826), (233, 37823), (234, 37820), (236, 37796), (249, 37724), (251, 37718),

Gene: Chaph\_52 Start: 37123, Stop: 36356, Start Num: 117

Candidate Starts for Chaph\_52:

(Start: 117 @37123 has 107 MA's), (Start: 151 @37108 has 9 MA's), (159, 37054), (164, 37018), (167, 36997), (197, 36802), (232, 36613), (234, 36607), (249, 36511), (251, 36505),

Gene: Chargerpower\_54 Start: 36455, Stop: 35688, Start Num: 148

Candidate Starts for Chargerpower\_54:

(60, 36692), (135, 36482), (Start: 148 @36455 has 548 MA's), (167, 36329), (186, 36200), (206, 36095), (210, 36068), (227, 35963), (228, 35960), (232, 35942), (243, 35873), (246, 35861), (249, 35843), (251, 35837), (268, 35744),

Gene: Charm\_54 Start: 37387, Stop: 36617, Start Num: 148

Candidate Starts for Charm\_54:

(86, 37516), (123, 37429), (128, 37423), (Start: 148 @37387 has 548 MA's), (159, 37318), (167, 37261), (180, 37168), (186, 37132), (228, 36892), (233, 36871), (234, 36868), (246, 36790), (249, 36772), (251, 36766), (272, 36646),

Gene: Chartreuse\_56 Start: 35965, Stop: 35195, Start Num: 148

Candidate Starts for Chartreuse\_56:

(Start: 148 @35965 has 548 MA's), (156, 35908), (167, 35839), (170, 35782), (173, 35779), (221, 35515), (232, 35452), (234, 35446), (249, 35350), (251, 35344), (269, 35248), (271, 35239),

Gene: Che12\_57 Start: 36631, Stop: 35864, Start Num: 148

Candidate Starts for Che12\_57:

(Start: 148 @36631 has 548 MA's), (Start: 157 @36571 has 2 MA's), (164, 36526), (167, 36505), (186, 36376), (197, 36310), (210, 36244), (222, 36175), (227, 36139), (232, 36118), (243, 36049), (246, 36037), (249, 36019), (251, 36013), (261, 35956), (262, 35953),

Gene: ChipMunk\_58 Start: 39437, Stop: 38667, Start Num: 148

Candidate Starts for ChipMunk\_58:

(5, 39839), (Start: 148 @39437 has 548 MA's), (Start: 157 @39377 has 2 MA's), (167, 39311), (170, 39254), (173, 39251), (206, 39077), (221, 38987), (236, 38894), (246, 38840), (249, 38822), (251, 38816),

Gene: Chupacabra\_52 Start: 37009, Stop: 36242, Start Num: 148

Candidate Starts for Chupacabra\_52:

(79, 37063), (Start: 148 @37009 has 548 MA's), (164, 36904), (167, 36883), (173, 36823), (197, 36688), (210, 36625), (232, 36499), (234, 36493), (246, 36415), (249, 36397), (251, 36391),

Gene: Ciao\_51 Start: 37431, Stop: 36664, Start Num: 148

Candidate Starts for Ciao\_51:

(Start: 148 @37431 has 548 MA's), (152, 37413), (154, 37401), (167, 37305), (188, 37173), (200, 37104), (205, 37077), (210, 37047), (219, 36993), (234, 36915), (237, 36888), (241, 36858), (242, 36855), (248, 36822), (249, 36819), (255, 36789),

Gene: Cici\_51 Start: 37076, Stop: 36309, Start Num: 148

Candidate Starts for Cici\_51:

(Start: 148 @37076 has 548 MA's), (Start: 151 @37061 has 9 MA's), (159, 37007), (167, 36950), (173, 36890), (234, 36560), (249, 36464), (251, 36458), (262, 36398),

Gene: Cindaradix\_49 Start: 36742, Stop: 35975, Start Num: 117

Candidate Starts for Cindaradix\_49:

(71, 36811), (Start: 117 @36742 has 107 MA's), (Start: 151 @36727 has 9 MA's), (159, 36673), (164, 36637), (167, 36616), (197, 36421), (232, 36232), (234, 36226), (249, 36130), (251, 36124),

Gene: Cintron\_51 Start: 37089, Stop: 36322, Start Num: 117

Candidate Starts for Cintron\_51:

(Start: 117 @37089 has 107 MA's), (Start: 151 @37074 has 9 MA's), (159, 37020), (164, 36984), (167, 36963), (197, 36768), (232, 36579), (234, 36573), (249, 36477), (251, 36471),

Gene: Circinus\_47 Start: 45348, Stop: 46172, Start Num: 146

Candidate Starts for Circinus\_47:

(Start: 146 @45348 has 4 MA's), (162, 45432), (164, 45456), (194, 45723), (199, 45747), (204, 45768), (212, 45816), (237, 45954), (239, 45972), (248, 46011), (254, 46035), (264, 46089), (265, 46098), (272, 46143),

Gene: Citius\_52 Start: 37133, Stop: 36366, Start Num: 117

Candidate Starts for Citius\_52:

(Start: 117 @37133 has 107 MA's), (Start: 151 @37118 has 9 MA's), (159, 37064), (164, 37028), (167, 37007), (197, 36812), (232, 36623), (234, 36617), (249, 36521), (251, 36515),

Gene: Clarenza\_51 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Clarenza\_51:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: CloudWang3\_58 Start: 36753, Stop: 35983, Start Num: 148

Candidate Starts for CloudWang3\_58:

(Start: 129 @36798 has 1 MA's), (Start: 148 @36753 has 548 MA's), (156, 36696), (160, 36681), (167, 36627), (170, 36570), (173, 36567), (221, 36303), (232, 36240), (234, 36234), (249, 36138), (251, 36132), (269, 36036), (271, 36027),

Gene: Cocoaberry\_52 Start: 37116, Stop: 36349, Start Num: 117

Candidate Starts for Cocoaberry\_52:

(Start: 117 @37116 has 107 MA's), (Start: 151 @37101 has 9 MA's), (159, 37047), (164, 37011), (167, 36990), (232, 36606), (234, 36600), (249, 36504), (251, 36498),

Gene: Colbster\_58 Start: 37706, Stop: 36939, Start Num: 148

Candidate Starts for Colbster\_58:

(Start: 148 @37706 has 548 MA's), (164, 37601), (167, 37580), (173, 37520), (216, 37286), (230, 37205), (232, 37196), (234, 37190), (241, 37133), (246, 37112), (249, 37094), (251, 37088),

Gene: Colin\_56 Start: 38063, Stop: 37293, Start Num: 148

Candidate Starts for Colin\_56:

(33, 38228), (Start: 148 @38063 has 548 MA's), (159, 37994), (167, 37937), (173, 37877), (221, 37613), (232, 37550), (233, 37547), (234, 37544), (236, 37520), (249, 37448), (251, 37442),

Gene: Commander\_52 Start: 37111, Stop: 36344, Start Num: 117

Candidate Starts for Commander\_52:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (197, 36790), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: Comrade\_49 Start: 43332, Stop: 44147, Start Num: 149

Candidate Starts for Comrade\_49:

(124, 43278), (Start: 140 @43317 has 1 MA's), (142, 43320), (Start: 149 @43332 has 23 MA's), (162, 43407), (191, 43686), (192, 43689), (194, 43698), (204, 43743), (207, 43755), (232, 43896), (239, 43947), (248, 43986), (254, 44010),

Gene: Connomayer\_52 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Connomayer\_52:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Conquerage\_56 Start: 37753, Stop: 36983, Start Num: 148

Candidate Starts for Conquerage\_56:

(Start: 148 @37753 has 548 MA's), (159, 37684), (167, 37627), (188, 37492), (198, 37429), (206, 37393), (210, 37366), (222, 37297), (228, 37258), (229, 37252), (233, 37237), (234, 37234), (246, 37156), (249, 37138), (251, 37132), (272, 37012),

Gene: Conspiracy\_48 Start: 36286, Stop: 35516, Start Num: 145

Candidate Starts for Conspiracy\_48:

(Start: 145 @36286 has 36 MA's), (164, 36181), (167, 36160), (173, 36100), (193, 35992), (202, 35950), (216, 35866), (234, 35770), (249, 35674), (251, 35668),

Gene: Coog\_47 Start: 36444, Stop: 35674, Start Num: 148

Candidate Starts for Coog\_47:

(Start: 148 @36444 has 548 MA's), (164, 36339), (167, 36318), (173, 36258), (186, 36189), (193, 36150), (202, 36108), (234, 35928), (249, 35832), (251, 35826), (263, 35760),

Gene: Cookiedough\_57 Start: 36584, Stop: 35814, Start Num: 148

Candidate Starts for Cookiedough\_57:

(Start: 129 @36629 has 1 MA's), (Start: 148 @36584 has 548 MA's), (156, 36527), (167, 36458), (170, 36401), (173, 36398), (221, 36134), (232, 36071), (234, 36065), (249, 35969), (251, 35963), (269, 35867), (271, 35858),

Gene: CosmicSans\_44 Start: 33597, Stop: 32833, Start Num: 148

Candidate Starts for CosmicSans\_44:

(82, 33753), (87, 33729), (111, 33681), (116, 33669), (130, 33639), (Start: 145 @33603 has 36 MA's), (Start: 148 @33597 has 548 MA's), (Start: 157 @33537 has 2 MA's), (173, 33411), (203, 33252), (204, 33246), (234, 33081), (247, 33000), (249, 32988), (251, 32982), (261, 32925), (263, 32916), (268, 32889), (277, 32838),

Gene: Crispicous1\_49 Start: 36605, Stop: 35838, Start Num: 148

Candidate Starts for Crispicous1\_49:

(Start: 148 @36605 has 548 MA's), (155, 36569), (Start: 157 @36545 has 2 MA's), (164, 36500), (173, 36419), (181, 36383), (188, 36344), (204, 36254), (208, 36227), (219, 36167), (221, 36158), (232, 36095), (241, 36032), (246, 36011), (249, 35993), (251, 35987), (259, 35942), (261, 35930),

Gene: Cross\_69 Start: 52994, Stop: 53749, Start Num: 144

Candidate Starts for Cross\_69:

(Start: 144 @52994 has 59 MA's), (150, 53003), (156, 53054), (161, 53075), (162, 53078), (192, 53291), (202, 53336), (207, 53363), (220, 53444), (231, 53501), (248, 53597),

Gene: Crucio\_56 Start: 37683, Stop: 36913, Start Num: 148

Candidate Starts for Crucio\_56:

(29, 37851), (Start: 148 @37683 has 548 MA's), (Start: 157 @37623 has 2 MA's), (167, 37557), (170, 37500), (173, 37497), (206, 37323), (221, 37233), (236, 37140), (246, 37086), (249, 37068), (251,

37062),

Gene: Cuco\_48 Start: 36316, Stop: 35546, Start Num: 148

Candidate Starts for Cuco\_48:

(Start: 148 @36316 has 548 MA's), (164, 36211), (167, 36190), (173, 36130), (193, 36022), (197, 35995), (206, 35959), (234, 35800), (235, 35782), (249, 35704), (251, 35698), (261, 35641), (263, 35632),

Gene: Cueylyss\_53 Start: 39284, Stop: 38517, Start Num: 148

Candidate Starts for Cueylyss\_53:

(Start: 148 @39284 has 548 MA's), (152, 39266), (154, 39254), (167, 39158), (188, 39026), (200, 38957), (205, 38930), (219, 38846), (234, 38768), (237, 38741), (241, 38711), (242, 38708), (248, 38675), (249, 38672), (255, 38642),

Gene: Cullens\_58 Start: 37702, Stop: 36935, Start Num: 148

Candidate Starts for Cullens\_58:

(Start: 148 @37702 has 548 MA's), (164, 37597), (167, 37576), (173, 37516), (216, 37282), (230, 37201), (232, 37192), (234, 37186), (241, 37129), (246, 37108), (249, 37090), (251, 37084),

Gene: Cursive\_67 Start: 52519, Stop: 53274, Start Num: 144

Candidate Starts for Cursive\_67:

(Start: 144 @52519 has 59 MA's), (150, 52528), (156, 52579), (161, 52600), (162, 52603), (192, 52816), (202, 52861), (207, 52888), (220, 52969), (231, 53026), (248, 53122),

Gene: D29\_54 Start: 37552, Stop: 36785, Start Num: 148

Candidate Starts for D29\_54:

(Start: 148 @37552 has 548 MA's), (159, 37483), (167, 37426), (184, 37312), (206, 37192), (208, 37171), (210, 37165), (214, 37144), (222, 37096), (227, 37060), (232, 37039), (243, 36970), (246, 36958), (249, 36940), (251, 36934), (262, 36874),

Gene: D32\_57 Start: 37552, Stop: 36785, Start Num: 148

Candidate Starts for D32\_57:

(Start: 148 @37552 has 548 MA's), (159, 37483), (167, 37426), (184, 37312), (206, 37192), (208, 37171), (210, 37165), (214, 37144), (222, 37096), (227, 37060), (232, 37039), (243, 36970), (246, 36958), (249, 36940), (251, 36934), (262, 36874),

Gene: DBQu4n\_58 Start: 37533, Stop: 36766, Start Num: 148

Candidate Starts for DBQu4n\_58:

(Start: 148 @37533 has 548 MA's), (159, 37464), (167, 37407), (184, 37293), (206, 37173), (208, 37152), (210, 37146), (214, 37125), (222, 37077), (227, 37041), (232, 37020), (243, 36951), (246, 36939), (249, 36921), (251, 36915), (262, 36855),

Gene: DD5\_51 Start: 38191, Stop: 37424, Start Num: 148

Candidate Starts for DD5\_51:

(94, 38314), (Start: 148 @38191 has 548 MA's), (155, 38155), (Start: 157 @38131 has 2 MA's), (164, 38086), (173, 38005), (181, 37969), (188, 37930), (204, 37840), (208, 37813), (219, 37753), (221, 37744), (232, 37681), (241, 37618), (246, 37597), (249, 37579), (251, 37573), (259, 37528), (261, 37516),

Gene: DaHudson\_58 Start: 37695, Stop: 36928, Start Num: 148

Candidate Starts for DaHudson\_58:

(Start: 148 @37695 has 548 MA's), (164, 37590), (167, 37569), (173, 37509), (230, 37194), (232, 37185), (234, 37179), (241, 37122), (246, 37101), (249, 37083), (251, 37077),

Gene: DaVinci\_56 Start: 36019, Stop: 35249, Start Num: 148

Candidate Starts for DaVinci\_56:

(Start: 148 @36019 has 548 MA's), (156, 35962), (167, 35893), (170, 35836), (173, 35833), (221, 35569), (232, 35506), (234, 35500), (249, 35404), (251, 35398), (269, 35302), (271, 35293),

Gene: Daishi\_57 Start: 36571, Stop: 35804, Start Num: 148

Candidate Starts for Daishi\_57:

(Start: 148 @36571 has 548 MA's), (164, 36466), (167, 36445), (173, 36385), (216, 36151), (230, 36070), (232, 36061), (234, 36055), (241, 35998), (246, 35977), (249, 35959), (251, 35953),

Gene: Dalmatian\_57 Start: 38060, Stop: 37290, Start Num: 148

Candidate Starts for Dalmatian\_57:

(Start: 148 @38060 has 548 MA's), (Start: 157 @38000 has 2 MA's), (164, 37955), (167, 37934), (170, 37877), (173, 37874), (206, 37700), (221, 37610), (233, 37544), (234, 37541), (236, 37517), (249, 37445), (251, 37439),

Gene: Danforth\_53 Start: 35998, Stop: 35231, Start Num: 148

Candidate Starts for Danforth\_53:

(89, 36127), (Start: 148 @35998 has 548 MA's), (Start: 157 @35938 has 2 MA's), (159, 35929), (167, 35872), (186, 35743), (214, 35593), (229, 35500), (234, 35482), (244, 35413), (246, 35404), (249, 35386), (251, 35380), (262, 35320), (266, 35299),

Gene: Darrell\_58 Start: 38379, Stop: 37609, Start Num: 148

Candidate Starts for Darrell\_58:

(Start: 148 @38379 has 548 MA's), (159, 38310), (167, 38253), (210, 37992), (228, 37884), (229, 37878), (233, 37863), (234, 37860), (246, 37782), (249, 37764), (251, 37758), (272, 37638),

Gene: DarthPhader\_52 Start: 38372, Stop: 37605, Start Num: 148

Candidate Starts for DarthPhader\_52:

(105, 38453), (Start: 129 @38405 has 1 MA's), (Start: 148 @38372 has 548 MA's), (160, 38300), (164, 38267), (167, 38246), (186, 38117), (206, 38012), (208, 37991), (209, 37988), (210, 37985), (222, 37916), (227, 37880), (228, 37877), (232, 37859), (243, 37790), (246, 37778), (249, 37760), (251, 37754),

Gene: Datway\_51 Start: 37047, Stop: 36280, Start Num: 148

Candidate Starts for Datway\_51:

(Start: 148 @37047 has 548 MA's), (Start: 151 @37032 has 9 MA's), (159, 36978), (167, 36921), (173, 36861), (234, 36531), (249, 36435), (251, 36429), (262, 36369),

Gene: Daubenski\_70 Start: 52767, Stop: 53522, Start Num: 144

Candidate Starts for Daubenski\_70:

(Start: 144 @52767 has 59 MA's), (150, 52776), (156, 52827), (Start: 157 @52830 has 2 MA's), (161, 52848), (198, 53097), (217, 53199), (225, 53250), (248, 53370), (251, 53379), (254, 53388),

Gene: Deano\_51 Start: 37105, Stop: 36353, Start Num: 151

Candidate Starts for Deano\_51:

(Start: 117 @37120 has 107 MA's), (Start: 151 @37105 has 9 MA's), (159, 37051), (164, 37015), (167, 36994), (197, 36799), (232, 36610), (234, 36604), (249, 36508), (251, 36502),

Gene: DekHockey33\_62 Start: 37089, Stop: 36325, Start Num: 148

Candidate Starts for DekHockey33\_62:

(104, 37185), (106, 37179), (127, 37134), (Start: 148 @37089 has 548 MA's), (184, 36852), (198, 36768), (206, 36735), (228, 36600), (234, 36576), (246, 36498), (249, 36480), (251, 36474), (262, 36414), (266, 36393),

Gene: Deloris\_57 Start: 37964, Stop: 37194, Start Num: 148

Candidate Starts for Deloris\_57:

(7, 38360), (23, 38192), (Start: 148 @37964 has 548 MA's), (Start: 157 @37904 has 2 MA's), (164, 37859), (167, 37838), (170, 37781), (173, 37778), (197, 37643), (221, 37514), (233, 37448), (234, 37445), (236, 37421), (249, 37349), (251, 37343), (263, 37277),

Gene: Dennebes\_73 Start: 35503, Stop: 36267, Start Num: 147

Candidate Starts for Dennebes\_73:

(49, 35221), (69, 35287), (73, 35314), (109, 35416), (Start: 147 @35503 has 12 MA's), (Start: 151 @35521 has 9 MA's), (161, 35584), (217, 35932), (241, 36082), (246, 36100), (249, 36118), (258, 36166), (259, 36169), (270, 36226), (275, 36256),

Gene: Dexes\_52 Start: 38341, Stop: 37574, Start Num: 148

Candidate Starts for Dexes\_52:

(17, 38773), (31, 38686), (54, 38596), (60, 38578), (62, 38575), (Start: 148 @38341 has 548 MA's), (155, 38305), (Start: 157 @38281 has 2 MA's), (164, 38236), (173, 38155), (181, 38119), (188, 38080), (204, 37990), (208, 37963), (219, 37903), (221, 37894), (232, 37831), (246, 37747), (249, 37729), (251, 37723), (259, 37678), (261, 37666),

Gene: Dhanush\_52 Start: 37115, Stop: 36348, Start Num: 117

Candidate Starts for Dhanush\_52:

(Start: 117 @37115 has 107 MA's), (Start: 151 @37100 has 9 MA's), (159, 37046), (164, 37010), (167, 36989), (197, 36794), (232, 36605), (234, 36599), (249, 36503), (251, 36497),

Gene: Dieselweasel\_59 Start: 37705, Stop: 36938, Start Num: 148

Candidate Starts for Dieselweasel\_59:

(Start: 148 @37705 has 548 MA's), (164, 37600), (167, 37579), (173, 37519), (216, 37285), (230, 37204), (232, 37195), (234, 37189), (241, 37132), (246, 37111), (249, 37093), (251, 37087),

Gene: Dignity\_58 Start: 38257, Stop: 37487, Start Num: 148

Candidate Starts for Dignity\_58:

(23, 38485), (Start: 148 @38257 has 548 MA's), (Start: 157 @38197 has 2 MA's), (167, 38131), (170, 38074), (173, 38071), (206, 37897), (221, 37807), (236, 37714), (246, 37660), (249, 37642), (251, 37636),

Gene: Dinger\_43 Start: 33466, Stop: 32702, Start Num: 148

Candidate Starts for Dinger\_43:

(64, 33691), (66, 33685), (78, 33637), (81, 33631), (Start: 140 @33478 has 1 MA's), (Start: 148 @33466 has 548 MA's), (Start: 157 @33406 has 2 MA's), (173, 33280), (203, 33121), (204, 33115), (234, 32950), (243, 32887), (249, 32857), (251, 32851), (261, 32794), (263, 32785), (268, 32758), (277, 32707),

Gene: DirtyDunning\_51 Start: 37109, Stop: 36357, Start Num: 151

Candidate Starts for DirtyDunning\_51:

(Start: 117 @37124 has 107 MA's), (Start: 151 @37109 has 9 MA's), (159, 37055), (164, 37019), (167, 36998), (197, 36803), (232, 36614), (234, 36608), (249, 36512), (251, 36506),

Gene: Discoknowium\_46 Start: 35953, Stop: 35183, Start Num: 145

Candidate Starts for Discoknowium\_46:

(Start: 145 @35953 has 36 MA's), (164, 35848), (167, 35827), (173, 35767), (193, 35659), (202, 35617), (216, 35533), (234, 35437), (249, 35341), (251, 35335),

Gene: Dixon\_53 Start: 35823, Stop: 35056, Start Num: 148

Candidate Starts for Dixon\_53:

(89, 35952), (Start: 148 @35823 has 548 MA's), (Start: 157 @35763 has 2 MA's), (159, 35754), (167, 35697), (186, 35568), (214, 35418), (229, 35325), (234, 35307), (244, 35238), (246, 35229), (249, 35211), (251, 35205), (262, 35145), (266, 35124),

Gene: Doom\_51 Start: 37767, Stop: 37000, Start Num: 148

Candidate Starts for Doom\_51:

(19, 38193), (27, 38127), (58, 38010), (Start: 148 @37767 has 548 MA's), (152, 37749), (154, 37737), (167, 37641), (188, 37509), (200, 37440), (205, 37413), (219, 37329), (234, 37251), (237, 37224), (241, 37194), (242, 37191), (248, 37158), (249, 37155), (255, 37125),

Gene: Dorin\_62 Start: 53149, Stop: 53907, Start Num: 144

Candidate Starts for Dorin\_62:

(72, 52963), (80, 52984), (83, 52999), (85, 53008), (97, 53044), (131, 53113), (Start: 144 @53149 has 59 MA's), (Start: 151 @53170 has 9 MA's), (161, 53233), (162, 53236), (175, 53359), (177, 53362), (201, 53485), (205, 53503), (227, 53635), (231, 53650), (233, 53659), (248, 53746), (254, 53770), (258, 53797), (261, 53812),

Gene: Dorothea\_56 Start: 36588, Stop: 35818, Start Num: 148

Candidate Starts for Dorothea\_56:

(Start: 148 @36588 has 548 MA's), (156, 36531), (167, 36462), (170, 36405), (173, 36402), (221, 36138), (232, 36075), (234, 36069), (249, 35973), (251, 35967), (269, 35871), (271, 35862),

Gene: DrFeelGood\_49 Start: 37451, Stop: 36684, Start Num: 148

Candidate Starts for DrFeelGood\_49:

(Start: 148 @37451 has 548 MA's), (154, 37421), (167, 37325), (188, 37193), (200, 37124), (205, 37097), (219, 37013), (234, 36935), (237, 36908), (241, 36878), (242, 36875), (248, 36842), (249, 36839), (255, 36809),

Gene: Drake55\_58 Start: 38152, Stop: 37382, Start Num: 148

Candidate Starts for Drake55\_58:

(23, 38374), (Start: 148 @38152 has 548 MA's), (167, 38026), (170, 37969), (173, 37966), (174, 37963), (221, 37702), (232, 37639), (233, 37636), (234, 37633), (236, 37609), (249, 37537), (251, 37531),

Gene: Drake94\_51 Start: 36244, Stop: 35477, Start Num: 148

Candidate Starts for Drake94\_51:

(79, 36298), (Start: 148 @36244 has 548 MA's), (164, 36139), (167, 36118), (173, 36058), (184, 36004), (197, 35923), (234, 35728), (246, 35650), (249, 35632), (251, 35626),

Gene: DreamCatcher\_55 Start: 38862, Stop: 38095, Start Num: 148

Candidate Starts for DreamCatcher\_55:

(Start: 148 @38862 has 548 MA's), (155, 38826), (167, 38736), (188, 38604), (200, 38535), (205, 38508), (219, 38424), (232, 38349), (234, 38343), (249, 38250), (259, 38199), (263, 38178),

Gene: DreamTeam1\_54 Start: 37219, Stop: 36449, Start Num: 148

Candidate Starts for DreamTeam1\_54:

(86, 37348), (123, 37261), (128, 37255), (Start: 148 @37219 has 548 MA's), (159, 37150), (167, 37093), (180, 37000), (186, 36964), (228, 36724), (233, 36703), (234, 36700), (246, 36622), (249,

36604), (251, 36598), (272, 36478),

Gene: Dreamboat\_53 Start: 37207, Stop: 36440, Start Num: 148

Candidate Starts for Dreamboat\_53:

(Start: 148 @37207 has 548 MA's), (152, 37189), (154, 37177), (167, 37081), (188, 36949), (200, 36880), (205, 36853), (219, 36769), (234, 36691), (237, 36664), (241, 36634), (242, 36631), (248, 36598), (249, 36595), (255, 36565),

Gene: DroogsArmy\_49 Start: 38240, Stop: 37470, Start Num: 148

Candidate Starts for DroogsArmy\_49:

(Start: 148 @38240 has 548 MA's), (155, 38204), (167, 38114), (173, 38054), (193, 37946), (197, 37919), (206, 37883), (208, 37862), (231, 37736), (234, 37724), (235, 37706), (238, 37685), (246, 37646), (249, 37628), (251, 37622), (277, 37478),

Gene: Druantia\_52 Start: 37115, Stop: 36348, Start Num: 117

Candidate Starts for Druantia\_52:

(Start: 117 @37115 has 107 MA's), (Start: 151 @37100 has 9 MA's), (159, 37046), (164, 37010), (167, 36989), (197, 36794), (232, 36605), (234, 36599), (249, 36503), (251, 36497),

Gene: Dublin\_48 Start: 36455, Stop: 35685, Start Num: 145

Candidate Starts for Dublin\_48:

(Start: 145 @36455 has 36 MA's), (164, 36350), (167, 36329), (173, 36269), (193, 36161), (202, 36119), (216, 36035), (234, 35939), (249, 35843), (251, 35837),

Gene: DudeLittle\_55 Start: 37826, Stop: 37056, Start Num: 148

Candidate Starts for DudeLittle\_55:

(Start: 148 @37826 has 548 MA's), (Start: 157 @37766 has 2 MA's), (164, 37721), (167, 37700), (170, 37643), (173, 37640), (206, 37466), (221, 37376), (233, 37310), (234, 37307), (236, 37283), (249, 37211), (251, 37205),

Gene: Dulcie\_52 Start: 37660, Stop: 36893, Start Num: 148

Candidate Starts for Dulcie\_52:

(Start: 148 @37660 has 548 MA's), (155, 37624), (167, 37534), (187, 37405), (188, 37402), (200, 37333), (205, 37306), (219, 37222), (232, 37147), (234, 37141), (249, 37048), (259, 36997), (263, 36976),

Gene: Duplo\_58 Start: 37589, Stop: 36822, Start Num: 148

Candidate Starts for Duplo\_58:

(Start: 148 @37589 has 548 MA's), (159, 37520), (167, 37463), (184, 37349), (206, 37229), (208, 37208), (210, 37202), (214, 37181), (222, 37133), (227, 37097), (232, 37076), (243, 37007), (246, 36995), (249, 36977), (251, 36971), (262, 36911),

Gene: Dynamix\_53 Start: 37682, Stop: 36915, Start Num: 148

Candidate Starts for Dynamix\_53:

(Start: 148 @37682 has 548 MA's), (155, 37646), (Start: 157 @37622 has 2 MA's), (164, 37577), (173, 37496), (181, 37460), (188, 37421), (204, 37331), (208, 37304), (219, 37244), (221, 37235), (232, 37172), (241, 37109), (246, 37088), (249, 37070), (251, 37064), (259, 37019), (261, 37007),

Gene: EGole\_70 Start: 53940, Stop: 54695, Start Num: 144

Candidate Starts for EGole\_70:

(Start: 144 @53940 has 59 MA's), (150, 53949), (156, 54000), (161, 54021), (162, 54024), (192, 54237), (194, 54246), (202, 54282), (207, 54309), (220, 54390), (248, 54543),

Gene: EZMoney23\_54 Start: 37589, Stop: 36819, Start Num: 65

Candidate Starts for EZMoney23\_54:

(23, 37766), (Start: 65 @37589 has 2 MA's), (167, 37463), (173, 37403), (221, 37139), (232, 37076), (233, 37073), (234, 37070), (236, 37046), (244, 37001), (249, 36974), (251, 36968),

Gene: Eagle\_52 Start: 37137, Stop: 36370, Start Num: 117

Candidate Starts for Eagle\_52:

(Start: 117 @37137 has 107 MA's), (Start: 151 @37122 has 9 MA's), (159, 37068), (164, 37032), (167, 37011), (178, 36924), (197, 36816), (232, 36627), (234, 36621), (249, 36525), (251, 36519),

Gene: EagleEye\_58 Start: 37432, Stop: 36662, Start Num: 148

Candidate Starts for EagleEye\_58:

(Start: 148 @37432 has 548 MA's), (167, 37306), (183, 37195), (192, 37141), (210, 37045), (228, 36937), (232, 36919), (233, 36916), (234, 36913), (235, 36895), (243, 36847), (246, 36835), (249, 36817), (253, 36805), (256, 36781), (269, 36715),

Gene: Eaglepride\_54 Start: 37073, Stop: 36306, Start Num: 148

Candidate Starts for Eaglepride\_54:

(79, 37247), (Start: 148 @37073 has 548 MA's), (167, 36947), (173, 36887), (184, 36833), (197, 36752), (210, 36689), (234, 36557), (246, 36479), (249, 36461), (251, 36455), (269, 36359), (273, 36332),

Gene: Eapen\_52 Start: 37107, Stop: 36340, Start Num: 117

Candidate Starts for Eapen\_52:

(Start: 117 @37107 has 107 MA's), (Start: 151 @37092 has 9 MA's), (159, 37038), (164, 37002), (167, 36981), (197, 36786), (232, 36597), (234, 36591), (249, 36495), (251, 36489),

Gene: Ebony\_55 Start: 36694, Stop: 35927, Start Num: 148

Candidate Starts for Ebony\_55:

(137, 36706), (Start: 148 @36694 has 548 MA's), (159, 36625), (167, 36568), (186, 36439), (190, 36412), (192, 36403), (210, 36307), (227, 36202), (243, 36112), (246, 36100), (249, 36082), (251, 36076), (261, 36019), (266, 35995),

Gene: Echild\_56 Start: 37135, Stop: 36365, Start Num: 148

Candidate Starts for Echild\_56:

(Start: 148 @37135 has 548 MA's), (167, 37009), (170, 36952), (173, 36949), (222, 36679), (232, 36622), (233, 36619), (234, 36616), (236, 36592), (240, 36562), (249, 36520), (251, 36514),

Gene: Edison31\_51 Start: 37012, Stop: 36245, Start Num: 148

Candidate Starts for Edison31\_51:

(79, 37093), (Start: 148 @37012 has 548 MA's), (Start: 157 @36952 has 2 MA's), (164, 36907), (167, 36886), (173, 36826), (197, 36691), (232, 36502), (234, 36496), (246, 36418), (249, 36400), (251, 36394),

Gene: Edtherson\_51 Start: 37936, Stop: 37169, Start Num: 148

Candidate Starts for Edtherson\_51:

(Start: 148 @37936 has 548 MA's), (155, 37900), (Start: 157 @37876 has 2 MA's), (164, 37831), (173, 37750), (181, 37714), (188, 37675), (204, 37585), (208, 37558), (219, 37498), (221, 37489), (232, 37426), (241, 37363), (246, 37342), (249, 37324), (251, 37318), (259, 37273), (261, 37261),

Gene: Eidsmoe\_56 Start: 37745, Stop: 36975, Start Num: 148

Candidate Starts for Eidsmoe\_56:

(Start: 148 @37745 has 548 MA's), (159, 37676), (167, 37619), (188, 37484), (198, 37421), (206, 37385), (210, 37358), (222, 37289), (228, 37250), (229, 37244), (233, 37229), (234, 37226), (246, 37148), (249, 37130), (251, 37124), (272, 37004),

Gene: EITiger69\_51 Start: 36412, Stop: 35642, Start Num: 145

Candidate Starts for EITiger69\_51:

(Start: 145 @36412 has 36 MA's), (164, 36307), (167, 36286), (173, 36226), (193, 36118), (197, 36091), (202, 36076), (206, 36055), (234, 35896), (235, 35878), (249, 35800), (251, 35794), (261, 35737), (263, 35728),

Gene: Elephatoon\_55 Start: 37121, Stop: 36351, Start Num: 148

Candidate Starts for Elephatoon\_55:

(Start: 148 @37121 has 548 MA's), (Start: 151 @37106 has 9 MA's), (159, 37052), (167, 36995), (186, 36866), (210, 36734), (228, 36626), (229, 36620), (233, 36605), (234, 36602), (246, 36524), (249, 36506), (251, 36500), (272, 36380),

Gene: Elmer\_78 Start: 53384, Stop: 54145, Start Num: 144

Candidate Starts for Elmer\_78:

(134, 53357), (Start: 144 @53384 has 59 MA's), (150, 53396), (156, 53447), (Start: 157 @53450 has 2 MA's), (161, 53468), (218, 53825), (224, 53867), (235, 53924), (236, 53930), (248, 53990), (254, 54008),

Gene: Emma1919\_50 Start: 42120, Stop: 42935, Start Num: 149

Candidate Starts for Emma1919\_50:

(Start: 140 @42105 has 1 MA's), (Start: 149 @42120 has 23 MA's), (162, 42195), (164, 42219), (186, 42441), (189, 42453), (194, 42486), (202, 42519), (204, 42531), (239, 42735), (244, 42750), (254, 42798),

Gene: EmyBug\_53 Start: 37747, Stop: 36977, Start Num: 148

Candidate Starts for EmyBug\_53:

(Start: 148 @37747 has 548 MA's), (159, 37678), (167, 37621), (188, 37486), (198, 37423), (206, 37387), (210, 37360), (222, 37291), (228, 37252), (229, 37246), (233, 37231), (234, 37228), (246, 37150), (249, 37132), (251, 37126), (272, 37006),

Gene: Enygma\_71 Start: 54109, Stop: 54870, Start Num: 144

Candidate Starts for Enygma\_71:

(133, 54079), (134, 54082), (Start: 144 @54109 has 59 MA's), (150, 54121), (156, 54172), (161, 54193), (215, 54526), (235, 54649), (248, 54715), (254, 54733), (269, 54817),

Gene: EpicPhail\_59 Start: 37706, Stop: 36939, Start Num: 148

Candidate Starts for EpicPhail\_59:

(Start: 148 @37706 has 548 MA's), (164, 37601), (167, 37580), (173, 37520), (216, 37286), (230, 37205), (232, 37196), (234, 37190), (241, 37133), (246, 37112), (249, 37094), (251, 37088),

Gene: Epsocamisio\_58 Start: 36332, Stop: 35568, Start Num: 148

Candidate Starts for Epsocamisio\_58:

(104, 36428), (106, 36422), (127, 36377), (Start: 148 @36332 has 548 MA's), (184, 36095), (198, 36011), (206, 35978), (228, 35843), (234, 35819), (246, 35741), (249, 35723), (251, 35717), (262, 35657), (266, 35636),

Gene: Equemioh13\_57 Start: 37975, Stop: 37205, Start Num: 148

Candidate Starts for Equemioh13\_57:

(23, 38197), (Start: 148 @37975 has 548 MA's), (167, 37849), (170, 37792), (173, 37789), (174, 37786), (221, 37525), (232, 37462), (233, 37459), (234, 37456), (236, 37432), (249, 37360), (251, 37354),

Gene: EricB\_57 Start: 36562, Stop: 35792, Start Num: 148

Candidate Starts for EricB\_57:

(Start: 129 @36607 has 1 MA's), (Start: 148 @36562 has 548 MA's), (156, 36505), (160, 36490), (164, 36457), (167, 36436), (170, 36379), (173, 36376), (221, 36112), (232, 36049), (234, 36043), (249, 35947), (251, 35941), (269, 35845), (271, 35836),

Gene: Erik\_44 Start: 33529, Stop: 32765, Start Num: 148

Candidate Starts for Erik\_44:

(82, 33685), (87, 33661), (111, 33613), (116, 33601), (130, 33571), (Start: 145 @33535 has 36 MA's), (Start: 148 @33529 has 548 MA's), (Start: 157 @33469 has 2 MA's), (173, 33343), (203, 33184), (204, 33178), (234, 33013), (249, 32920), (251, 32914), (261, 32857), (263, 32848), (268, 32821), (277, 32770),

Gene: Eris\_51 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Eris\_51:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Eros\_52 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Eros\_52:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Espica\_44 Start: 33530, Stop: 32766, Start Num: 148

Candidate Starts for Espica\_44:

(82, 33686), (87, 33662), (111, 33614), (116, 33602), (130, 33572), (Start: 145 @33536 has 36 MA's), (Start: 148 @33530 has 548 MA's), (Start: 157 @33470 has 2 MA's), (164, 33425), (173, 33344), (203, 33185), (204, 33179), (234, 33014), (249, 32921), (251, 32915), (261, 32858), (263, 32849), (268, 32822), (277, 32771),

Gene: Et2Brutus\_54 Start: 36657, Stop: 35890, Start Num: 148

Candidate Starts for Et2Brutus\_54:

(137, 36669), (Start: 148 @36657 has 548 MA's), (159, 36588), (167, 36531), (186, 36402), (190, 36375), (192, 36366), (210, 36270), (227, 36165), (243, 36075), (246, 36063), (249, 36045), (251, 36039), (261, 35982), (266, 35958),

Gene: Eurydice\_53 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Eurydice\_53:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: EvilGenius\_58 Start: 39438, Stop: 38668, Start Num: 148

Candidate Starts for EvilGenius\_58:

(Start: 148 @39438 has 548 MA's), (Start: 157 @39378 has 2 MA's), (167, 39312), (170, 39255), (173, 39252), (206, 39078), (221, 38988), (236, 38895), (246, 38841), (249, 38823), (251, 38817),

Gene: Evy\_70 Start: 52989, Stop: 53744, Start Num: 144

Candidate Starts for Evy\_70:

(Start: 144 @52989 has 59 MA's), (150, 52998), (153, 53013), (156, 53049), (161, 53070), (162, 53073), (227, 53481), (232, 53502), (248, 53592), (250, 53598), (263, 53661), (271, 53700),

Gene: Expelliarmus\_53 Start: 36027, Stop: 35260, Start Num: 148

Candidate Starts for Expelliarmus\_53:

(89, 36156), (Start: 148 @36027 has 548 MA's), (Start: 157 @35967 has 2 MA's), (159, 35958), (167, 35901), (186, 35772), (214, 35622), (229, 35529), (234, 35511), (244, 35442), (246, 35433), (249, 35415), (251, 35409), (262, 35349), (266, 35328),

Gene: ExplosioNervosa\_56 Start: 37813, Stop: 37043, Start Num: 148

Candidate Starts for ExplosioNervosa\_56:

(Start: 148 @37813 has 548 MA's), (159, 37744), (167, 37687), (188, 37552), (198, 37489), (206, 37453), (210, 37426), (222, 37357), (228, 37318), (229, 37312), (233, 37297), (234, 37294), (246, 37216), (249, 37198), (251, 37192), (272, 37072),

Gene: Eyeball\_53 Start: 38031, Stop: 37264, Start Num: 148

Candidate Starts for Eyeball\_53:

(Start: 148 @38031 has 548 MA's), (152, 38013), (154, 38001), (167, 37905), (188, 37773), (200, 37704), (205, 37677), (219, 37593), (234, 37515), (237, 37488), (241, 37458), (242, 37455), (248, 37422), (249, 37419), (255, 37389),

Gene: Fabian\_63 Start: 34709, Stop: 35473, Start Num: 147

Candidate Starts for Fabian\_63:

(Start: 147 @34709 has 12 MA's), (Start: 151 @34727 has 9 MA's), (181, 34934), (217, 35138), (246, 35306), (249, 35324), (259, 35375), (266, 35411), (270, 35432), (275, 35462),

Gene: Fajezeel\_53 Start: 37780, Stop: 37013, Start Num: 148

Candidate Starts for Fajezeel\_53:

(Start: 148 @37780 has 548 MA's), (152, 37762), (154, 37750), (167, 37654), (188, 37522), (200, 37453), (205, 37426), (210, 37396), (219, 37342), (234, 37264), (237, 37237), (241, 37207), (242, 37204), (248, 37171), (249, 37168), (255, 37138),

Gene: Fameo\_56 Start: 38014, Stop: 37244, Start Num: 148

Candidate Starts for Fameo\_56:

(Start: 148 @38014 has 548 MA's), (Start: 157 @37954 has 2 MA's), (167, 37888), (170, 37831), (173, 37828), (205, 37657), (221, 37564), (233, 37498), (234, 37495), (236, 37471), (249, 37399), (251, 37393),

Gene: Farber\_58 Start: 37692, Stop: 36925, Start Num: 148

Candidate Starts for Farber\_58:

(Start: 148 @37692 has 548 MA's), (164, 37587), (167, 37566), (173, 37506), (216, 37272), (230, 37191), (232, 37182), (234, 37176), (241, 37119), (246, 37098), (249, 37080), (251, 37074),

Gene: Fascinus\_47 Start: 36711, Stop: 35944, Start Num: 148

Candidate Starts for Fascinus\_47:

(Start: 148 @36711 has 548 MA's), (Start: 157 @36651 has 2 MA's), (164, 36606), (173, 36525), (181, 36489), (188, 36450), (204, 36360), (208, 36333), (219, 36273), (221, 36264), (232, 36201), (246, 36117), (249, 36099), (251, 36093), (259, 36048), (261, 36036),

Gene: Faust\_50 Start: 43261, Stop: 44076, Start Num: 149

Candidate Starts for Faust\_50:

(121, 43198), (Start: 149 @43261 has 23 MA's), (162, 43336), (164, 43360), (170, 43441), (186, 43582), (194, 43627), (202, 43660), (204, 43672), (232, 43825), (237, 43858), (239, 43876), (254,

43939), (272, 44047),

Gene: Fayely\_56 Start: 37714, Stop: 36944, Start Num: 148

Candidate Starts for Fayely\_56:

(Start: 148 @37714 has 548 MA's), (159, 37645), (167, 37588), (188, 37453), (198, 37390), (206, 37354), (210, 37327), (222, 37258), (228, 37219), (229, 37213), (233, 37198), (234, 37195), (246, 37117), (249, 37099), (251, 37093), (272, 36973),

Gene: Fenn\_54 Start: 39613, Stop: 38846, Start Num: 148

Candidate Starts for Fenn\_54:

(94, 39736), (Start: 148 @39613 has 548 MA's), (Start: 157 @39553 has 2 MA's), (164, 39508), (173, 39427), (181, 39391), (188, 39352), (204, 39262), (208, 39235), (219, 39175), (221, 39166), (232, 39103), (241, 39040), (246, 39019), (249, 39001), (251, 38995), (259, 38950), (261, 38938),

Gene: Fernando\_58 Start: 37702, Stop: 36935, Start Num: 148

Candidate Starts for Fernando\_58:

(Start: 148 @37702 has 548 MA's), (164, 37597), (167, 37576), (173, 37516), (216, 37282), (230, 37201), (232, 37192), (234, 37186), (241, 37129), (246, 37108), (249, 37090), (251, 37084),

Gene: Fibonacci\_55 Start: 36663, Stop: 35896, Start Num: 148

Candidate Starts for Fibonacci\_55:

(137, 36675), (Start: 148 @36663 has 548 MA's), (159, 36594), (167, 36537), (186, 36408), (190, 36381), (192, 36372), (210, 36276), (227, 36171), (243, 36081), (246, 36069), (249, 36051), (251, 36045), (261, 35988), (266, 35964),

Gene: FiringLine\_56 Start: 37664, Stop: 36894, Start Num: 148

Candidate Starts for FiringLine\_56:

(29, 37832), (Start: 148 @37664 has 548 MA's), (Start: 157 @37604 has 2 MA's), (167, 37538), (170, 37481), (173, 37478), (206, 37304), (221, 37214), (236, 37121), (246, 37067), (249, 37049), (251, 37043),

Gene: First\_0058 Start: 38227, Stop: 37457, Start Num: 148

Candidate Starts for First\_0058:

(Start: 148 @38227 has 548 MA's), (Start: 157 @38167 has 2 MA's), (167, 38101), (170, 38044), (173, 38041), (197, 37906), (221, 37777), (233, 37711), (234, 37708), (236, 37684), (240, 37654), (249, 37612), (251, 37606), (263, 37540),

Gene: Flare16\_56 Start: 37734, Stop: 36964, Start Num: 148

Candidate Starts for Flare16\_56:

(23, 37953), (Start: 148 @37734 has 548 MA's), (167, 37608), (170, 37551), (173, 37548), (174, 37545), (221, 37284), (232, 37221), (233, 37218), (234, 37215), (236, 37191), (249, 37119), (251, 37113),

Gene: Flaverint\_56 Start: 37121, Stop: 36354, Start Num: 148

Candidate Starts for Flaverint\_56:

(137, 37133), (Start: 148 @37121 has 548 MA's), (159, 37052), (167, 36995), (186, 36866), (190, 36839), (192, 36830), (210, 36734), (227, 36629), (243, 36539), (246, 36527), (249, 36509), (251, 36503), (261, 36446), (266, 36422),

Gene: Florean\_52 Start: 37111, Stop: 36344, Start Num: 117

Candidate Starts for Florean\_52:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (197, 36790), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: FlowerPower\_65 Start: 34709, Stop: 35473, Start Num: 147

Candidate Starts for FlowerPower\_65:

(Start: 147 @34709 has 12 MA's), (Start: 151 @34727 has 9 MA's), (181, 34934), (217, 35138), (246, 35306), (249, 35324), (259, 35375), (266, 35411), (270, 35432), (275, 35462),

Gene: Flux\_52 Start: 37111, Stop: 36344, Start Num: 117

Candidate Starts for Flux\_52:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (197, 36790), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: ForGetIt\_48 Start: 36311, Stop: 35541, Start Num: 145

Candidate Starts for ForGetIt\_48:

(Start: 145 @36311 has 36 MA's), (164, 36206), (167, 36185), (173, 36125), (193, 36017), (202, 35975), (216, 35891), (234, 35795), (249, 35699), (251, 35693),

Gene: Forrest\_51 Start: 42817, Stop: 43632, Start Num: 149

Candidate Starts for Forrest\_51:

(Start: 140 @42802 has 1 MA's), (Start: 149 @42817 has 23 MA's), (162, 42892), (164, 42916), (186, 43138), (189, 43150), (194, 43183), (202, 43216), (204, 43228), (239, 43432), (254, 43495),

Gene: Forsytheast\_51 Start: 37255, Stop: 36488, Start Num: 148

Candidate Starts for Forsytheast\_51:

(Start: 148 @37255 has 548 MA's), (152, 37237), (154, 37225), (167, 37129), (188, 36997), (200, 36928), (205, 36901), (210, 36871), (219, 36817), (234, 36739), (237, 36712), (241, 36682), (242, 36679), (248, 36646), (249, 36643), (255, 36613),

Gene: Francesca\_62 Start: 53332, Stop: 54090, Start Num: 144

Candidate Starts for Francesca\_62:

(Start: 144 @53332 has 59 MA's), (Start: 151 @53353 has 9 MA's), (161, 53416), (162, 53419), (175, 53542), (177, 53545), (201, 53668), (205, 53686), (208, 53710), (227, 53818), (233, 53842), (248, 53929), (254, 53953), (261, 53995),

Gene: Francob\_48 Start: 42189, Stop: 43004, Start Num: 149

Candidate Starts for Francob\_48:

(Start: 140 @42174 has 1 MA's), (Start: 149 @42189 has 23 MA's), (162, 42264), (164, 42288), (172, 42423), (186, 42510), (194, 42555), (202, 42588), (204, 42600), (218, 42681), (239, 42804), (244, 42819), (254, 42867),

Gene: Fred313\_55 Start: 37108, Stop: 36341, Start Num: 148

Candidate Starts for Fred313\_55:

(79, 37165), (Start: 148 @37108 has 548 MA's), (164, 37003), (167, 36982), (173, 36922), (214, 36703), (233, 36595), (234, 36592), (241, 36535), (249, 36496), (277, 36346),

Gene: Froghopper\_49 Start: 36781, Stop: 36014, Start Num: 148

Candidate Starts for Froghopper\_49:

(Start: 148 @36781 has 548 MA's), (155, 36745), (167, 36655), (188, 36523), (200, 36454), (205, 36427), (219, 36343), (234, 36262), (249, 36169), (259, 36118), (263, 36097),

Gene: Funston\_51 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Funston\_51:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Fushigi\_50 Start: 35742, Stop: 34975, Start Num: 148

Candidate Starts for Fushigi\_50:

(Start: 148 @35742 has 548 MA's), (Start: 157 @35682 has 2 MA's), (164, 35637), (173, 35556), (181, 35520), (188, 35481), (204, 35391), (208, 35364), (219, 35304), (221, 35295), (232, 35232), (241, 35169), (246, 35148), (249, 35130), (251, 35124), (259, 35079), (261, 35067),

Gene: Gadost\_52 Start: 37116, Stop: 36349, Start Num: 117

Candidate Starts for Gadost\_52:

(Start: 117 @37116 has 107 MA's), (Start: 151 @37101 has 9 MA's), (159, 37047), (164, 37011), (167, 36990), (232, 36606), (234, 36600), (249, 36504), (251, 36498),

Gene: Gail\_60 Start: 38877, Stop: 38110, Start Num: 148

Candidate Starts for Gail\_60:

(22, 39282), (75, 39054), (93, 38991), (Start: 148 @38877 has 548 MA's), (167, 38751), (210, 38490), (221, 38427), (227, 38385), (228, 38382), (243, 38295), (246, 38283), (249, 38265), (251, 38259),

Gene: Garak\_60 Start: 37032, Stop: 36262, Start Num: 148

Candidate Starts for Garak\_60:

(Start: 129 @37077 has 1 MA's), (Start: 148 @37032 has 548 MA's), (156, 36975), (160, 36960), (167, 36906), (170, 36849), (173, 36846), (221, 36582), (232, 36519), (234, 36513), (249, 36417), (251, 36411), (269, 36315), (271, 36306),

Gene: GaugeLDP\_54 Start: 37971, Stop: 37201, Start Num: 148

Candidate Starts for GaugeLDP\_54:

(9, 38295), (23, 38148), (Start: 148 @37971 has 548 MA's), (167, 37845), (170, 37788), (173, 37785), (221, 37521), (232, 37458), (233, 37455), (234, 37452), (236, 37428), (244, 37383), (249, 37356), (251, 37350),

Gene: Gemma\_57 Start: 37588, Stop: 36821, Start Num: 148

Candidate Starts for Gemma\_57:

(71, 37675), (Start: 148 @37588 has 548 MA's), (164, 37483), (167, 37462), (173, 37402), (216, 37168), (230, 37087), (232, 37078), (234, 37072), (241, 37015), (246, 36994), (249, 36976), (251, 36970), (262, 36910),

Gene: Genie2\_71 Start: 52285, Stop: 53046, Start Num: 144

Candidate Starts for Genie2\_71:

(133, 52255), (134, 52258), (Start: 144 @52285 has 59 MA's), (150, 52297), (156, 52348), (Start: 157 @52351 has 2 MA's), (158, 52357), (161, 52369), (176, 52495), (235, 52825), (248, 52891), (254, 52909), (269, 52993),

Gene: George\_46 Start: 36363, Stop: 35593, Start Num: 145

Candidate Starts for George\_46:

(Start: 145 @36363 has 36 MA's), (164, 36258), (167, 36237), (173, 36177), (186, 36108), (193, 36069), (197, 36042), (202, 36027), (234, 35847), (235, 35829), (249, 35751), (251, 35745), (261, 35688), (263, 35679),

Gene: Georgie2\_57 Start: 37709, Stop: 36939, Start Num: 148

Candidate Starts for Georgie2\_57:

(29, 37877), (Start: 148 @37709 has 548 MA's), (Start: 157 @37649 has 2 MA's), (167, 37583), (170, 37526), (173, 37523), (206, 37349), (221, 37259), (236, 37166), (246, 37112), (249, 37094), (251, 37088),

Gene: Geostin\_60 Start: 34709, Stop: 35473, Start Num: 147

Candidate Starts for Geostin\_60:

(Start: 147 @34709 has 12 MA's), (Start: 151 @34727 has 9 MA's), (181, 34934), (217, 35138), (246, 35306), (249, 35324), (259, 35375), (266, 35411), (270, 35432), (275, 35462),

Gene: Ghoulboy\_51 Start: 37190, Stop: 36420, Start Num: 145

Candidate Starts for Ghoulboy\_51:

(Start: 145 @37190 has 36 MA's), (164, 37085), (167, 37064), (173, 37004), (193, 36896), (202, 36854), (216, 36770), (234, 36674), (248, 36581), (249, 36578), (251, 36572), (261, 36515),

Gene: Gibbi\_75 Start: 52429, Stop: 53190, Start Num: 144

Candidate Starts for Gibbi\_75:

(133, 52399), (134, 52402), (Start: 144 @52429 has 59 MA's), (150, 52441), (156, 52492), (Start: 157 @52495 has 2 MA's), (161, 52513), (192, 52729), (209, 52819), (224, 52912), (235, 52969), (248, 53035), (254, 53053),

Gene: Gilberta\_56 Start: 37114, Stop: 36347, Start Num: 148

Candidate Starts for Gilberta\_56:

(137, 37126), (Start: 148 @37114 has 548 MA's), (159, 37045), (167, 36988), (186, 36859), (190, 36832), (192, 36823), (210, 36727), (227, 36622), (243, 36532), (246, 36520), (249, 36502), (251, 36496), (261, 36439), (266, 36415),

Gene: Gilson\_50 Start: 42073, Stop: 42888, Start Num: 149

Candidate Starts for Gilson\_50:

(Start: 140 @42058 has 1 MA's), (Start: 149 @42073 has 23 MA's), (162, 42148), (164, 42172), (186, 42394), (189, 42406), (194, 42439), (202, 42472), (204, 42484), (239, 42688), (254, 42751),

Gene: GingkoMaracino\_58 Start: 37588, Stop: 36821, Start Num: 148

Candidate Starts for GingkoMaracino\_58:

(Start: 148 @37588 has 548 MA's), (164, 37483), (167, 37462), (173, 37402), (216, 37168), (230, 37087), (232, 37078), (234, 37072), (241, 37015), (246, 36994), (249, 36976), (251, 36970),

Gene: Giroux\_56 Start: 37520, Stop: 36753, Start Num: 148

Candidate Starts for Giroux\_56:

(79, 37577), (Start: 148 @37520 has 548 MA's), (164, 37415), (167, 37394), (173, 37334), (214, 37115), (234, 37004), (241, 36947), (246, 36926), (249, 36908),

Gene: Gladiator\_55 Start: 36263, Stop: 35493, Start Num: 148

Candidate Starts for Gladiator\_55:

(Start: 129 @36299 has 1 MA's), (Start: 148 @36263 has 548 MA's), (156, 36206), (160, 36191), (167, 36137), (170, 36080), (173, 36077), (174, 36074), (221, 35813), (234, 35744), (249, 35648), (251, 35642), (262, 35582), (271, 35537),

Gene: Gollum\_44 Start: 33595, Stop: 32831, Start Num: 148

Candidate Starts for Gollum\_44:

(82, 33751), (87, 33727), (111, 33679), (116, 33667), (130, 33637), (Start: 145 @33601 has 36 MA's), (Start: 148 @33595 has 548 MA's), (Start: 157 @33535 has 2 MA's), (164, 33490), (173, 33409), (203, 33250), (204, 33244), (234, 33079), (249, 32986), (251, 32980), (261, 32923), (263, 32914), (268, 32887), (277, 32836),

Gene: Goose\_53 Start: 36825, Stop: 36058, Start Num: 148

Candidate Starts for Goose\_53:

(79, 36879), (Start: 148 @36825 has 548 MA's), (164, 36720), (167, 36699), (173, 36639), (197, 36504), (210, 36441), (232, 36315), (234, 36309), (246, 36231), (249, 36213), (251, 36207),

Gene: Graduation\_55 Start: 39356, Stop: 38589, Start Num: 148

Candidate Starts for Graduation\_55:

(Start: 148 @39356 has 548 MA's), (152, 39338), (154, 39326), (167, 39230), (188, 39098), (200, 39029), (205, 39002), (219, 38918), (234, 38840), (237, 38813), (241, 38783), (242, 38780), (248, 38747), (249, 38744), (255, 38714),

Gene: Grayson\_90 Start: 54993, Stop: 55787, Start Num: 144

Candidate Starts for Grayson\_90:

(Start: 144 @54993 has 59 MA's), (Start: 151 @55014 has 9 MA's), (162, 55080), (174, 55224), (183, 55272), (191, 55323), (196, 55347), (254, 55650), (263, 55701), (264, 55704), (270, 55737), (273, 55761),

Gene: GrecoEtereo\_52 Start: 37593, Stop: 36826, Start Num: 148

Candidate Starts for GrecoEtereo\_52:

(Start: 148 @37593 has 548 MA's), (155, 37557), (Start: 157 @37533 has 2 MA's), (164, 37488), (173, 37407), (181, 37371), (188, 37332), (204, 37242), (208, 37215), (219, 37155), (221, 37146), (232, 37083), (241, 37020), (246, 36999), (249, 36981), (251, 36975), (259, 36930), (261, 36918),

Gene: GreedyLawyer\_57 Start: 36569, Stop: 35799, Start Num: 148

Candidate Starts for GreedyLawyer\_57:

(Start: 129 @36614 has 1 MA's), (Start: 148 @36569 has 548 MA's), (156, 36512), (160, 36497), (164, 36464), (167, 36443), (170, 36386), (173, 36383), (221, 36119), (232, 36056), (234, 36050), (249, 35954), (251, 35948), (269, 35852), (271, 35843),

Gene: Greg\_53 Start: 37780, Stop: 37013, Start Num: 148

Candidate Starts for Greg\_53:

(Start: 148 @37780 has 548 MA's), (152, 37762), (154, 37750), (167, 37654), (188, 37522), (200, 37453), (205, 37426), (210, 37396), (219, 37342), (234, 37264), (237, 37237), (241, 37207), (242, 37204), (248, 37171), (249, 37168), (255, 37138),

Gene: Gremlin23\_65 Start: 34709, Stop: 35473, Start Num: 147

Candidate Starts for Gremlin23\_65:

(Start: 147 @34709 has 12 MA's), (Start: 151 @34727 has 9 MA's), (181, 34934), (217, 35138), (246, 35306), (249, 35324), (259, 35375), (266, 35411), (270, 35432), (275, 35462),

Gene: Grif\_58 Start: 37777, Stop: 37010, Start Num: 148

Candidate Starts for Grif\_58:

(Start: 148 @37777 has 548 MA's), (164, 37672), (167, 37651), (173, 37591), (216, 37357), (230, 37276), (232, 37267), (234, 37261), (241, 37204), (246, 37183), (249, 37165), (251, 37159),

Gene: Groundhog\_52 Start: 35913, Stop: 35146, Start Num: 148

Candidate Starts for Groundhog\_52:

(89, 36042), (Start: 148 @35913 has 548 MA's), (Start: 157 @35853 has 2 MA's), (159, 35844), (167, 35787), (186, 35658), (214, 35508), (229, 35415), (234, 35397), (244, 35328), (246, 35319), (249, 35301), (251, 35295), (262, 35235), (266, 35214),

Gene: Groupthink\_59 Start: 37592, Stop: 36825, Start Num: 148

Candidate Starts for Groupthink\_59:

(Start: 147 @37595 has 12 MA's), (Start: 148 @37592 has 548 MA's), (164, 37487), (167, 37466), (173, 37406), (216, 37172), (230, 37091), (232, 37082), (234, 37076), (241, 37019), (246, 36998),

(249, 36980), (251, 36974), (262, 36914),

Gene: Grub\_58 Start: 37694, Stop: 36927, Start Num: 148

Candidate Starts for Grub\_58:

(Start: 148 @37694 has 548 MA's), (164, 37589), (167, 37568), (173, 37508), (230, 37193), (232, 37184), (234, 37178), (241, 37121), (246, 37100), (249, 37082), (251, 37076),

Gene: Grum1\_58 Start: 37702, Stop: 36935, Start Num: 148

Candidate Starts for Grum1\_58:

(Start: 148 @37702 has 548 MA's), (164, 37597), (167, 37576), (173, 37516), (216, 37282), (230, 37201), (232, 37192), (234, 37186), (241, 37129), (246, 37108), (249, 37090), (251, 37084),

Gene: Gruunaga\_58 Start: 36962, Stop: 36192, Start Num: 148

Candidate Starts for Gruunaga\_58:

(Start: 129 @36998 has 1 MA's), (Start: 148 @36962 has 548 MA's), (156, 36905), (160, 36890), (167, 36836), (170, 36779), (173, 36776), (174, 36773), (221, 36512), (234, 36443), (249, 36347), (251, 36341), (262, 36281), (271, 36236),

Gene: GtownJaz\_58 Start: 37704, Stop: 36937, Start Num: 148

Candidate Starts for GtownJaz\_58:

(Start: 148 @37704 has 548 MA's), (164, 37599), (167, 37578), (173, 37518), (216, 37284), (230, 37203), (232, 37194), (234, 37188), (241, 37131), (246, 37110), (249, 37092), (251, 37086),

Gene: Gwendoluna\_56 Start: 39792, Stop: 39025, Start Num: 148

Candidate Starts for Gwendoluna\_56:

(Start: 148 @39792 has 548 MA's), (152, 39774), (154, 39762), (167, 39666), (188, 39534), (200, 39465), (205, 39438), (210, 39408), (219, 39354), (234, 39276), (237, 39249), (241, 39219), (242, 39216), (248, 39183), (249, 39180), (255, 39150),

Gene: Gyزلار\_47 Start: 35507, Stop: 34740, Start Num: 148

Candidate Starts for Gyزلار\_47:

(Start: 148 @35507 has 548 MA's), (Start: 157 @35447 has 2 MA's), (164, 35402), (173, 35321), (181, 35285), (188, 35246), (204, 35156), (208, 35129), (219, 35069), (221, 35060), (232, 34997), (246, 34913), (249, 34895), (251, 34889), (259, 34844), (261, 34832),

Gene: HINdeR\_48 Start: 37902, Stop: 37132, Start Num: 148

Candidate Starts for HINdeR\_48:

(37, 38172), (41, 38160), (55, 38109), (74, 38040), (Start: 148 @37902 has 548 MA's), (155, 37866), (167, 37776), (173, 37716), (193, 37608), (197, 37581), (206, 37545), (234, 37386), (235, 37368), (238, 37347), (241, 37329), (246, 37308), (249, 37290), (251, 37284), (268, 37191), (273, 37161), (277, 37140),

Gene: HamSlice\_51 Start: 37110, Stop: 36343, Start Num: 117

Candidate Starts for HamSlice\_51:

(Start: 117 @37110 has 107 MA's), (Start: 151 @37095 has 9 MA's), (159, 37041), (164, 37005), (167, 36984), (197, 36789), (232, 36600), (234, 36594), (249, 36498), (251, 36492),

Gene: Hammer\_58 Start: 36569, Stop: 35799, Start Num: 148

Candidate Starts for Hammer\_58:

(Start: 129 @36605 has 1 MA's), (Start: 148 @36569 has 548 MA's), (156, 36512), (160, 36497), (167, 36443), (170, 36386), (173, 36383), (174, 36380), (221, 36119), (234, 36050), (249, 35954), (251, 35948), (262, 35888), (271, 35843),

Gene: HangryHippo\_71 Start: 52993, Stop: 53748, Start Num: 144

Candidate Starts for HangryHippo\_71:

(Start: 144 @52993 has 59 MA's), (150, 53002), (156, 53053), (161, 53074), (162, 53077), (192, 53290), (202, 53335), (207, 53362), (220, 53443), (231, 53500), (248, 53596),

Gene: Happiness\_51 Start: 37131, Stop: 36364, Start Num: 117

Candidate Starts for Happiness\_51:

(Start: 117 @37131 has 107 MA's), (Start: 151 @37116 has 9 MA's), (159, 37062), (164, 37026), (167, 37005), (173, 36945), (197, 36810), (232, 36621), (234, 36615), (249, 36519), (251, 36513),

Gene: Harlequin\_43 Start: 33387, Stop: 32617, Start Num: 145

Candidate Starts for Harlequin\_43:

(82, 33537), (87, 33513), (96, 33492), (111, 33465), (130, 33423), (Start: 145 @33387 has 36 MA's), (Start: 148 @33381 has 548 MA's), (Start: 157 @33321 has 2 MA's), (173, 33195), (203, 33036), (204, 33030), (234, 32865), (249, 32772), (251, 32766), (261, 32709), (263, 32700), (277, 32622),

Gene: HarryHoudini\_57 Start: 38161, Stop: 37391, Start Num: 148

Candidate Starts for HarryHoudini\_57:

(23, 38383), (Start: 148 @38161 has 548 MA's), (167, 38035), (170, 37978), (173, 37975), (174, 37972), (221, 37711), (232, 37648), (233, 37645), (234, 37642), (236, 37618), (249, 37546), (251, 37540),

Gene: HarryOW\_50 Start: 36765, Stop: 35998, Start Num: 148

Candidate Starts for HarryOW\_50:

(Start: 148 @36765 has 548 MA's), (155, 36729), (Start: 157 @36705 has 2 MA's), (164, 36660), (173, 36579), (181, 36543), (188, 36504), (204, 36414), (208, 36387), (219, 36327), (221, 36318), (232, 36255), (241, 36192), (246, 36171), (249, 36153), (251, 36147), (259, 36102), (261, 36090),

Gene: HashRod\_59 Start: 37730, Stop: 36963, Start Num: 148

Candidate Starts for HashRod\_59:

(Start: 148 @37730 has 548 MA's), (164, 37625), (167, 37604), (173, 37544), (216, 37310), (230, 37229), (232, 37220), (234, 37214), (241, 37157), (246, 37136), (249, 37118), (251, 37112),

Gene: HaugeAnator\_69 Start: 35377, Stop: 36153, Start Num: 139

Candidate Starts for HaugeAnator\_69:

(Start: 139 @35377 has 8 MA's), (142, 35383), (Start: 147 @35389 has 12 MA's), (159, 35461), (161, 35470), (179, 35608), (194, 35692), (208, 35770), (217, 35818), (233, 35908), (237, 35938), (241, 35968), (246, 35986), (248, 36001), (249, 36004), (254, 36028), (257, 36043), (258, 36052), (259, 36055), (266, 36091), (269, 36106), (270, 36112), (271, 36115),

Gene: HaveUMetTed\_59 Start: 37577, Stop: 36810, Start Num: 148

Candidate Starts for HaveUMetTed\_59:

(Start: 147 @37580 has 12 MA's), (Start: 148 @37577 has 548 MA's), (164, 37472), (167, 37451), (173, 37391), (216, 37157), (230, 37076), (232, 37067), (234, 37061), (241, 37004), (246, 36983), (249, 36965), (251, 36959), (262, 36899),

Gene: Heathen\_55 Start: 37206, Stop: 36439, Start Num: 148

Candidate Starts for Heathen\_55:

(79, 37263), (Start: 148 @37206 has 548 MA's), (164, 37101), (167, 37080), (173, 37020), (214, 36801), (233, 36693), (234, 36690), (241, 36633), (249, 36594), (277, 36444),

Gene: Heffalump\_55 Start: 38482, Stop: 37712, Start Num: 148

Candidate Starts for Heffalump\_55:

(Start: 148 @38482 has 548 MA's), (Start: 157 @38422 has 2 MA's), (167, 38356), (170, 38299), (173, 38296), (221, 38032), (233, 37966), (234, 37963), (236, 37939), (249, 37867), (251, 37861),

Gene: HelDan\_55 Start: 37422, Stop: 36655, Start Num: 148

Candidate Starts for HelDan\_55:

(79, 37479), (Start: 148 @37422 has 548 MA's), (164, 37317), (167, 37296), (173, 37236), (214, 37017), (233, 36909), (234, 36906), (241, 36849), (249, 36810), (277, 36660),

Gene: Heliosoles\_57 Start: 37595, Stop: 36828, Start Num: 148

Candidate Starts for Heliosoles\_57:

(Start: 147 @37598 has 12 MA's), (Start: 148 @37595 has 548 MA's), (164, 37490), (167, 37469), (173, 37409), (216, 37175), (230, 37094), (232, 37085), (234, 37079), (241, 37022), (246, 37001), (249, 36983), (251, 36977), (262, 36917),

Gene: Helmet\_60 Start: 37032, Stop: 36262, Start Num: 148

Candidate Starts for Helmet\_60:

(Start: 129 @37077 has 1 MA's), (Start: 148 @37032 has 548 MA's), (156, 36975), (160, 36960), (167, 36906), (170, 36849), (173, 36846), (221, 36582), (232, 36519), (234, 36513), (249, 36417), (251, 36411), (269, 36315), (271, 36306),

Gene: Herbertwm\_54 Start: 37384, Stop: 36617, Start Num: 148

Candidate Starts for Herbertwm\_54:

(Start: 148 @37384 has 548 MA's), (167, 37258), (186, 37129), (206, 37024), (210, 36997), (227, 36892), (232, 36871), (243, 36802), (246, 36790), (249, 36772), (251, 36766), (261, 36709), (262, 36706), (269, 36670),

Gene: Hercules11\_58 Start: 37711, Stop: 36944, Start Num: 148

Candidate Starts for Hercules11\_58:

(Start: 148 @37711 has 548 MA's), (164, 37606), (167, 37585), (173, 37525), (216, 37291), (230, 37210), (232, 37201), (234, 37195), (241, 37138), (246, 37117), (249, 37099), (251, 37093),

Gene: Hermia\_51 Start: 38212, Stop: 37445, Start Num: 148

Candidate Starts for Hermia\_51:

(Start: 148 @38212 has 548 MA's), (155, 38176), (167, 38086), (188, 37954), (200, 37885), (205, 37858), (219, 37774), (232, 37699), (234, 37693), (249, 37600), (259, 37549), (263, 37528),

Gene: HermioneGrange\_51 Start: 37604, Stop: 36837, Start Num: 148

Candidate Starts for HermioneGrange\_51:

(Start: 148 @37604 has 548 MA's), (155, 37568), (Start: 157 @37544 has 2 MA's), (164, 37499), (173, 37418), (181, 37382), (188, 37343), (204, 37253), (208, 37226), (219, 37166), (221, 37157), (232, 37094), (246, 37010), (249, 36992), (251, 36986), (259, 36941), (261, 36929),

Gene: Hexamo\_58 Start: 36662, Stop: 35892, Start Num: 148

Candidate Starts for Hexamo\_58:

(Start: 129 @36707 has 1 MA's), (Start: 148 @36662 has 548 MA's), (156, 36605), (160, 36590), (167, 36536), (170, 36479), (173, 36476), (221, 36212), (232, 36149), (234, 36143), (249, 36047), (251, 36041), (269, 35945), (271, 35936),

Gene: Hiro\_44 Start: 33857, Stop: 33093, Start Num: 148

Candidate Starts for Hiro\_44:

(82, 34013), (87, 33989), (96, 33968), (111, 33941), (130, 33899), (Start: 145 @33863 has 36 MA's), (Start: 148 @33857 has 548 MA's), (Start: 157 @33797 has 2 MA's), (173, 33671), (203, 33512), (204, 33506), (234, 33341), (249, 33248), (251, 33242), (261, 33185), (263, 33176), (277, 33098),

Gene: Holli\_51 Start: 36902, Stop: 36135, Start Num: 117  
Candidate Starts for Holli\_51:  
(Start: 117 @36902 has 107 MA's), (Start: 151 @36887 has 9 MA's), (159, 36833), (164, 36797), (167, 36776), (197, 36581), (232, 36392), (234, 36386), (249, 36290), (251, 36284),

Gene: Homines\_44 Start: 33778, Stop: 33011, Start Num: 148  
Candidate Starts for Homines\_44:  
(Start: 148 @33778 has 548 MA's), (Start: 157 @33718 has 2 MA's), (164, 33673), (173, 33592), (181, 33556), (188, 33517), (204, 33427), (208, 33400), (219, 33340), (221, 33331), (232, 33268), (241, 33205), (246, 33184), (249, 33166), (251, 33160), (259, 33115), (261, 33103),

Gene: Hookmount\_54 Start: 37478, Stop: 36711, Start Num: 148  
Candidate Starts for Hookmount\_54:  
(79, 37532), (Start: 148 @37478 has 548 MA's), (167, 37352), (173, 37292), (206, 37121), (214, 37073), (234, 36962), (241, 36905), (246, 36884), (249, 36866), (251, 36860), (277, 36716),

Gene: Hoot\_52 Start: 34420, Stop: 33650, Start Num: 148  
Candidate Starts for Hoot\_52:  
(Start: 129 @34465 has 1 MA's), (Start: 148 @34420 has 548 MA's), (156, 34363), (160, 34348), (164, 34315), (167, 34294), (170, 34237), (173, 34234), (221, 33970), (232, 33907), (234, 33901), (249, 33805), (251, 33799), (269, 33703), (271, 33694),

Gene: Hope4ever\_54 Start: 38416, Stop: 37649, Start Num: 148  
Candidate Starts for Hope4ever\_54:  
(50, 38683), (Start: 148 @38416 has 548 MA's), (152, 38398), (154, 38386), (167, 38290), (188, 38158), (200, 38089), (205, 38062), (210, 38032), (219, 37978), (234, 37900), (237, 37873), (241, 37843), (242, 37840), (248, 37807), (249, 37804), (255, 37774),

Gene: HortumSL17\_56 Start: 37681, Stop: 36911, Start Num: 148  
Candidate Starts for HortumSL17\_56:  
(Start: 148 @37681 has 548 MA's), (159, 37612), (167, 37555), (188, 37420), (198, 37357), (206, 37321), (210, 37294), (222, 37225), (228, 37186), (229, 37180), (233, 37165), (234, 37162), (246, 37084), (249, 37066), (251, 37060), (272, 36940),

Gene: Houdini22\_52 Start: 37101, Stop: 36349, Start Num: 151  
Candidate Starts for Houdini22\_52:  
(Start: 117 @37116 has 107 MA's), (Start: 151 @37101 has 9 MA's), (159, 37047), (164, 37011), (167, 36990), (232, 36606), (234, 36600), (249, 36504), (251, 36498),

Gene: HuhtaEnerson15\_48 Start: 36354, Stop: 35584, Start Num: 148  
Candidate Starts for HuhtaEnerson15\_48:  
(Start: 148 @36354 has 548 MA's), (164, 36249), (167, 36228), (173, 36168), (186, 36099), (193, 36060), (197, 36033), (202, 36018), (206, 35997), (234, 35838), (249, 35742), (251, 35736), (261, 35679), (263, 35670),

Gene: Hutc2\_55 Start: 36663, Stop: 35896, Start Num: 148  
Candidate Starts for Hutc2\_55:  
(137, 36675), (Start: 148 @36663 has 548 MA's), (159, 36594), (167, 36537), (186, 36408), (190, 36381), (192, 36372), (210, 36276), (227, 36171), (243, 36081), (246, 36069), (249, 36051), (251, 36045), (261, 35988), (266, 35964),

Gene: ICleared\_52 Start: 37141, Stop: 36374, Start Num: 117

Candidate Starts for ICleared\_52:

(Start: 117 @37141 has 107 MA's), (Start: 151 @37126 has 9 MA's), (159, 37072), (164, 37036), (167, 37015), (232, 36631), (234, 36625), (249, 36529), (251, 36523),

Gene: ILeeKay\_55 Start: 38374, Stop: 37607, Start Num: 148

Candidate Starts for ILeeKay\_55:

(24, 38749), (56, 38623), (63, 38605), (70, 38584), (Start: 148 @38374 has 548 MA's), (155, 38338), (Start: 157 @38314 has 2 MA's), (164, 38269), (173, 38188), (181, 38152), (188, 38113), (204, 38023), (208, 37996), (219, 37936), (221, 37927), (232, 37864), (241, 37801), (246, 37780), (249, 37762), (251, 37756), (259, 37711), (261, 37699),

Gene: Iceman\_52 Start: 37398, Stop: 36631, Start Num: 117

Candidate Starts for Iceman\_52:

(Start: 117 @37398 has 107 MA's), (Start: 151 @37383 has 9 MA's), (164, 37293), (167, 37272), (232, 36888), (234, 36882), (249, 36786), (251, 36780),

Gene: IchabodCrane\_68 Start: 52018, Stop: 52779, Start Num: 144

Candidate Starts for IchabodCrane\_68:

(133, 51988), (134, 51991), (Start: 144 @52018 has 59 MA's), (150, 52030), (156, 52081), (Start: 157 @52084 has 2 MA's), (161, 52102), (192, 52318), (209, 52408), (224, 52501), (235, 52558), (248, 52624), (254, 52642),

Gene: Idleandcovert\_56 Start: 37521, Stop: 36754, Start Num: 148

Candidate Starts for Idleandcovert\_56:

(79, 37578), (Start: 148 @37521 has 548 MA's), (164, 37416), (167, 37395), (173, 37335), (214, 37116), (234, 37005), (241, 36948), (246, 36927), (249, 36909),

Gene: IgnatiusPatJac\_52 Start: 37995, Stop: 37228, Start Num: 148

Candidate Starts for IgnatiusPatJac\_52:

(Start: 148 @37995 has 548 MA's), (152, 37977), (154, 37965), (167, 37869), (188, 37737), (200, 37668), (205, 37641), (219, 37557), (234, 37479), (237, 37452), (241, 37422), (242, 37419), (248, 37386), (249, 37383), (255, 37353),

Gene: Immanuel3\_68 Start: 35380, Stop: 36156, Start Num: 139

Candidate Starts for Immanuel3\_68:

(Start: 139 @35380 has 8 MA's), (142, 35386), (Start: 147 @35392 has 12 MA's), (159, 35464), (161, 35473), (179, 35611), (194, 35695), (208, 35773), (217, 35821), (233, 35911), (237, 35941), (241, 35971), (246, 35989), (248, 36004), (249, 36007), (254, 36031), (257, 36046), (258, 36055), (259, 36058), (266, 36094), (269, 36109), (270, 36115), (271, 36118),

Gene: Indra\_61 Start: 37033, Stop: 36263, Start Num: 148

Candidate Starts for Indra\_61:

(Start: 129 @37078 has 1 MA's), (Start: 148 @37033 has 548 MA's), (156, 36976), (160, 36961), (167, 36907), (170, 36850), (173, 36847), (221, 36583), (232, 36520), (234, 36514), (249, 36418), (251, 36412), (269, 36316), (271, 36307),

Gene: Insomnia\_55 Start: 37174, Stop: 36407, Start Num: 148

Candidate Starts for Insomnia\_55:

(137, 37186), (Start: 148 @37174 has 548 MA's), (159, 37105), (167, 37048), (186, 36919), (190, 36892), (192, 36883), (210, 36787), (227, 36682), (243, 36592), (246, 36580), (249, 36562), (251, 36556), (261, 36499), (266, 36475),

Gene: Iracema64\_53 Start: 37376, Stop: 36609, Start Num: 117

Candidate Starts for Iracema64\_53:

(Start: 117 @37376 has 107 MA's), (Start: 151 @37361 has 9 MA's), (159, 37307), (164, 37271), (167, 37250), (197, 37055), (232, 36866), (234, 36860), (249, 36764), (251, 36758),

Gene: IronMan\_56 Start: 38870, Stop: 38100, Start Num: 148

Candidate Starts for IronMan\_56:

(23, 39098), (Start: 148 @38870 has 548 MA's), (167, 38744), (170, 38687), (173, 38684), (184, 38630), (221, 38420), (233, 38354), (234, 38351), (236, 38327), (244, 38282), (249, 38255), (251, 38249),

Gene: Isca\_54 Start: 36988, Stop: 36221, Start Num: 148

Candidate Starts for Isca\_54:

(79, 37045), (Start: 148 @36988 has 548 MA's), (164, 36883), (167, 36862), (173, 36802), (214, 36583), (233, 36475), (234, 36472), (241, 36415), (249, 36376), (277, 36226),

Gene: Isiphiwo\_55 Start: 36145, Stop: 35375, Start Num: 148

Candidate Starts for Isiphiwo\_55:

(Start: 148 @36145 has 548 MA's), (156, 36088), (167, 36019), (170, 35962), (173, 35959), (221, 35695), (232, 35632), (234, 35626), (249, 35530), (251, 35524), (269, 35428), (271, 35419),

Gene: Iwokeuplikedis\_59 Start: 37791, Stop: 37021, Start Num: 148

Candidate Starts for Iwokeuplikedis\_59:

(Start: 148 @37791 has 548 MA's), (166, 37668), (167, 37665), (170, 37608), (173, 37605), (174, 37602), (184, 37551), (197, 37470), (210, 37404), (221, 37341), (234, 37272), (236, 37248), (249, 37176), (251, 37170), (261, 37113), (269, 37074),

Gene: JC27\_53 Start: 38036, Stop: 37269, Start Num: 148

Candidate Starts for JC27\_53:

(Start: 148 @38036 has 548 MA's), (152, 38018), (154, 38006), (167, 37910), (188, 37778), (200, 37709), (205, 37682), (219, 37598), (234, 37520), (237, 37493), (241, 37463), (242, 37460), (248, 37427), (249, 37424), (255, 37394),

Gene: JF2\_53 Start: 35689, Stop: 34922, Start Num: 148

Candidate Starts for JF2\_53:

(79, 35746), (Start: 148 @35689 has 548 MA's), (164, 35584), (167, 35563), (173, 35503), (214, 35284), (233, 35176), (234, 35173), (241, 35116), (249, 35077), (277, 34927),

Gene: JF4\_53 Start: 35689, Stop: 34922, Start Num: 148

Candidate Starts for JF4\_53:

(79, 35746), (Start: 148 @35689 has 548 MA's), (164, 35584), (167, 35563), (173, 35503), (214, 35284), (233, 35176), (234, 35173), (241, 35116), (249, 35077), (277, 34927),

Gene: JHC117\_58 Start: 37701, Stop: 36934, Start Num: 148

Candidate Starts for JHC117\_58:

(Start: 148 @37701 has 548 MA's), (164, 37596), (167, 37575), (173, 37515), (216, 37281), (230, 37200), (232, 37191), (234, 37185), (241, 37128), (246, 37107), (249, 37089), (251, 37083),

Gene: JPandJE\_69 Start: 35895, Stop: 36671, Start Num: 139

Candidate Starts for JPandJE\_69:

(Start: 139 @35895 has 8 MA's), (142, 35901), (Start: 147 @35907 has 12 MA's), (159, 35979), (161, 35988), (179, 36126), (194, 36210), (208, 36288), (217, 36336), (233, 36426), (237, 36456), (241, 36486), (246, 36504), (248, 36519), (249, 36522), (254, 36546), (257, 36561), (258, 36570), (259, 36573), (266, 36609), (269, 36624), (270, 36630),

Gene: JSwag\_60 Start: 36521, Stop: 35757, Start Num: 148  
Candidate Starts for JSwag\_60:  
(104, 36617), (106, 36611), (127, 36566), (Start: 148 @36521 has 548 MA's), (184, 36284), (198, 36200), (206, 36167), (228, 36032), (234, 36008), (246, 35930), (249, 35912), (251, 35906), (262, 35846), (266, 35825),

Gene: Jaan\_56 Start: 39036, Stop: 38266, Start Num: 148  
Candidate Starts for Jaan\_56:  
(23, 39258), (Start: 148 @39036 has 548 MA's), (167, 38910), (173, 38850), (184, 38796), (197, 38715), (221, 38586), (233, 38520), (234, 38517), (236, 38493), (244, 38448), (249, 38421), (251, 38415),

Gene: Jabiru\_50 Start: 36285, Stop: 35515, Start Num: 148  
Candidate Starts for Jabiru\_50:  
(Start: 148 @36285 has 548 MA's), (164, 36180), (167, 36159), (173, 36099), (193, 35991), (197, 35964), (202, 35949), (206, 35928), (234, 35769), (249, 35673), (251, 35667), (263, 35601),

Gene: Jabith\_56 Start: 37175, Stop: 36408, Start Num: 148  
Candidate Starts for Jabith\_56:  
(137, 37187), (Start: 148 @37175 has 548 MA's), (159, 37106), (167, 37049), (186, 36920), (190, 36893), (192, 36884), (210, 36788), (227, 36683), (243, 36593), (246, 36581), (249, 36563), (251, 36557), (261, 36500), (266, 36476),

Gene: JackSparrow\_53 Start: 38013, Stop: 37246, Start Num: 148  
Candidate Starts for JackSparrow\_53:  
(Start: 148 @38013 has 548 MA's), (155, 37977), (167, 37887), (188, 37755), (200, 37686), (205, 37659), (219, 37575), (232, 37500), (234, 37494), (249, 37401), (259, 37350), (263, 37329),

Gene: Jada\_49 Start: 41999, Stop: 42814, Start Num: 149  
Candidate Starts for Jada\_49:  
(Start: 140 @41984 has 1 MA's), (Start: 149 @41999 has 23 MA's), (162, 42074), (164, 42098), (186, 42320), (189, 42332), (194, 42365), (202, 42398), (204, 42410), (239, 42614), (254, 42677),

Gene: Jasper\_53 Start: 37093, Stop: 36326, Start Num: 148  
Candidate Starts for Jasper\_53:  
(Start: 148 @37093 has 548 MA's), (152, 37075), (154, 37063), (167, 36967), (188, 36835), (200, 36766), (205, 36739), (219, 36655), (234, 36577), (237, 36550), (241, 36520), (242, 36517), (248, 36484), (249, 36481), (255, 36451),

Gene: Jay2Jay\_74 Start: 53842, Stop: 54597, Start Num: 144  
Candidate Starts for Jay2Jay\_74:  
(Start: 144 @53842 has 59 MA's), (150, 53851), (153, 53866), (156, 53902), (161, 53923), (162, 53926), (227, 54334), (232, 54355), (248, 54445), (250, 54451), (271, 54553),

Gene: Jaykayelowell\_50 Start: 37105, Stop: 36338, Start Num: 117  
Candidate Starts for Jaykayelowell\_50:  
(Start: 117 @37105 has 107 MA's), (Start: 151 @37090 has 9 MA's), (159, 37036), (164, 37000), (167, 36979), (197, 36784), (232, 36595), (234, 36589), (249, 36493), (251, 36487),

Gene: Jeeves\_60 Start: 37652, Stop: 36885, Start Num: 148  
Candidate Starts for Jeeves\_60:

(128, 37685), (Start: 148 @37652 has 548 MA's), (167, 37526), (186, 37397), (210, 37265), (221, 37202), (227, 37160), (228, 37157), (243, 37070), (246, 37058), (249, 37040), (251, 37034), (268, 36941),

Gene: Jeffabunny\_58 Start: 36659, Stop: 35889, Start Num: 148

Candidate Starts for Jeffabunny\_58:

(Start: 129 @36704 has 1 MA's), (Start: 148 @36659 has 548 MA's), (156, 36602), (160, 36587), (167, 36533), (170, 36476), (173, 36473), (221, 36209), (232, 36146), (234, 36140), (249, 36044), (251, 36038), (269, 35942), (271, 35933),

Gene: JenCasNa\_59 Start: 37702, Stop: 36935, Start Num: 148

Candidate Starts for JenCasNa\_59:

(Start: 148 @37702 has 548 MA's), (164, 37597), (167, 37576), (173, 37516), (216, 37282), (230, 37201), (232, 37192), (234, 37186), (241, 37129), (246, 37108), (249, 37090), (251, 37084),

Gene: JeppNRM\_59 Start: 37593, Stop: 36826, Start Num: 148

Candidate Starts for JeppNRM\_59:

(71, 37680), (Start: 147 @37596 has 12 MA's), (Start: 148 @37593 has 548 MA's), (164, 37488), (167, 37467), (173, 37407), (216, 37173), (230, 37092), (232, 37083), (234, 37077), (241, 37020), (246, 36999), (249, 36981), (251, 36975), (262, 36915),

Gene: Jerm\_58 Start: 38249, Stop: 37479, Start Num: 148

Candidate Starts for Jerm\_58:

(23, 38477), (Start: 148 @38249 has 548 MA's), (Start: 157 @38189 has 2 MA's), (167, 38123), (170, 38066), (173, 38063), (206, 37889), (221, 37799), (236, 37706), (246, 37652), (249, 37634), (251, 37628),

Gene: Jerm2\_52 Start: 37859, Stop: 37092, Start Num: 148

Candidate Starts for Jerm2\_52:

(Start: 148 @37859 has 548 MA's), (155, 37823), (Start: 157 @37799 has 2 MA's), (164, 37754), (173, 37673), (181, 37637), (188, 37598), (204, 37508), (208, 37481), (219, 37421), (221, 37412), (232, 37349), (246, 37265), (249, 37247), (251, 37241), (259, 37196), (261, 37184),

Gene: Jester\_43 Start: 33318, Stop: 32548, Start Num: 145

Candidate Starts for Jester\_43:

(82, 33468), (87, 33444), (96, 33423), (111, 33396), (130, 33354), (Start: 145 @33318 has 36 MA's), (Start: 148 @33312 has 548 MA's), (Start: 157 @33252 has 2 MA's), (173, 33126), (203, 32967), (204, 32961), (234, 32796), (249, 32703), (251, 32697), (261, 32640), (263, 32631), (277, 32553),

Gene: JetBlade\_52 Start: 37106, Stop: 36339, Start Num: 117

Candidate Starts for JetBlade\_52:

(Start: 117 @37106 has 107 MA's), (Start: 151 @37091 has 9 MA's), (159, 37037), (164, 37001), (167, 36980), (178, 36893), (197, 36785), (232, 36596), (234, 36590), (249, 36494), (251, 36488),

Gene: JewelBug\_58 Start: 36775, Stop: 36005, Start Num: 148

Candidate Starts for JewelBug\_58:

(Start: 148 @36775 has 548 MA's), (156, 36718), (167, 36649), (170, 36592), (173, 36589), (221, 36325), (232, 36262), (234, 36256), (249, 36160), (251, 36154), (269, 36058), (271, 36049),

Gene: JimJam\_71 Start: 52392, Stop: 53153, Start Num: 144

Candidate Starts for JimJam\_71:

(133, 52362), (134, 52365), (Start: 144 @52392 has 59 MA's), (150, 52404), (156, 52455), (Start: 157 @52458 has 2 MA's), (161, 52476), (192, 52692), (209, 52782), (224, 52875), (235, 52932), (248,

52998), (254, 53016),

Gene: Jobu08\_57 Start: 37534, Stop: 36767, Start Num: 148

Candidate Starts for Jobu08\_57:

(Start: 148 @37534 has 548 MA's), (164, 37429), (167, 37408), (173, 37348), (216, 37114), (230, 37033), (232, 37024), (234, 37018), (241, 36961), (246, 36940), (249, 36922), (251, 36916),

Gene: Jollison\_76 Start: 52274, Stop: 53035, Start Num: 144

Candidate Starts for Jollison\_76:

(133, 52244), (134, 52247), (Start: 144 @52274 has 59 MA's), (150, 52286), (156, 52337), (Start: 157 @52340 has 2 MA's), (161, 52358), (192, 52574), (209, 52664), (224, 52757), (235, 52814), (248, 52880), (254, 52898),

Gene: JoongJeon\_51 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for JoongJeon\_51:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Jordennis\_57 Start: 36265, Stop: 35495, Start Num: 148

Candidate Starts for Jordennis\_57:

(Start: 148 @36265 has 548 MA's), (156, 36208), (167, 36139), (170, 36082), (173, 36079), (221, 35815), (232, 35752), (234, 35746), (249, 35650), (251, 35644), (269, 35548), (271, 35539),

Gene: Jorgensen\_53 Start: 37741, Stop: 36974, Start Num: 148

Candidate Starts for Jorgensen\_53:

(50, 38008), (Start: 148 @37741 has 548 MA's), (155, 37705), (Start: 157 @37681 has 2 MA's), (164, 37636), (173, 37555), (181, 37519), (188, 37480), (204, 37390), (208, 37363), (219, 37303), (221, 37294), (232, 37231), (246, 37147), (249, 37129), (251, 37123), (259, 37078), (261, 37066),

Gene: Joselito\_56 Start: 37123, Stop: 36356, Start Num: 148

Candidate Starts for Joselito\_56:

(137, 37135), (Start: 148 @37123 has 548 MA's), (159, 37054), (167, 36997), (186, 36868), (190, 36841), (192, 36832), (210, 36736), (227, 36631), (243, 36541), (246, 36529), (249, 36511), (251, 36505), (261, 36448), (266, 36424),

Gene: JoshKayV\_58 Start: 38328, Stop: 37558, Start Num: 148

Candidate Starts for JoshKayV\_58:

(9, 38877), (11, 38841), (23, 38733), (79, 38502), (98, 38439), (Start: 148 @38328 has 548 MA's), (Start: 157 @38268 has 2 MA's), (167, 38202), (170, 38145), (173, 38142), (206, 37968), (221, 37878), (236, 37785), (246, 37731), (249, 37713), (251, 37707),

Gene: Journey13\_50 Start: 36057, Stop: 35287, Start Num: 148

Candidate Starts for Journey13\_50:

(Start: 148 @36057 has 548 MA's), (Start: 157 @35997 has 2 MA's), (159, 35988), (164, 35952), (167, 35931), (206, 35697), (210, 35670), (214, 35649), (232, 35544), (234, 35538), (235, 35520), (246, 35460), (248, 35445), (249, 35442), (251, 35436), (269, 35340), (277, 35292),

Gene: Jovo\_48 Start: 36567, Stop: 35797, Start Num: 145

Candidate Starts for Jovo\_48:

(Start: 145 @36567 has 36 MA's), (164, 36462), (167, 36441), (173, 36381), (193, 36273), (202, 36231), (216, 36147), (234, 36051), (249, 35955), (251, 35949),

Gene: Jsquared\_54 Start: 36675, Stop: 35908, Start Num: 148

Candidate Starts for Jsquared\_54:

(98, 36780), (Start: 148 @36675 has 548 MA's), (164, 36570), (167, 36549), (178, 36462), (186, 36420), (206, 36315), (210, 36288), (222, 36219), (227, 36183), (232, 36162), (243, 36093), (246, 36081), (249, 36063), (251, 36057), (261, 36000),

Gene: JuliaChild\_52 Start: 37454, Stop: 36687, Start Num: 148

Candidate Starts for JuliaChild\_52:

(Start: 148 @37454 has 548 MA's), (155, 37418), (167, 37328), (188, 37196), (200, 37127), (205, 37100), (219, 37016), (232, 36941), (234, 36935), (249, 36842), (259, 36791), (263, 36770),

Gene: KADY\_58 Start: 37730, Stop: 36963, Start Num: 148

Candidate Starts for KADY\_58:

(Start: 148 @37730 has 548 MA's), (164, 37625), (167, 37604), (173, 37544), (216, 37310), (230, 37229), (232, 37220), (234, 37214), (241, 37157), (246, 37136), (249, 37118), (251, 37112),

Gene: KFPoly\_51 Start: 37106, Stop: 36339, Start Num: 117

Candidate Starts for KFPoly\_51:

(Start: 117 @37106 has 107 MA's), (Start: 151 @37091 has 9 MA's), (159, 37037), (164, 37001), (167, 36980), (232, 36596), (234, 36590), (249, 36494), (251, 36488),

Gene: KSSJEB\_51 Start: 37447, Stop: 36680, Start Num: 148

Candidate Starts for KSSJEB\_51:

(94, 37570), (Start: 148 @37447 has 548 MA's), (155, 37411), (167, 37321), (188, 37189), (200, 37120), (205, 37093), (219, 37009), (232, 36934), (234, 36928), (249, 36835), (259, 36784), (263, 36763),

Gene: Kalb97\_59 Start: 37591, Stop: 36824, Start Num: 148

Candidate Starts for Kalb97\_59:

(Start: 147 @37594 has 12 MA's), (Start: 148 @37591 has 548 MA's), (164, 37486), (167, 37465), (173, 37405), (216, 37171), (230, 37090), (232, 37081), (234, 37075), (241, 37018), (246, 36997), (249, 36979), (251, 36973), (262, 36913),

Gene: Kalnoky\_59 Start: 37589, Stop: 36822, Start Num: 148

Candidate Starts for Kalnoky\_59:

(Start: 147 @37592 has 12 MA's), (Start: 148 @37589 has 548 MA's), (164, 37484), (167, 37463), (173, 37403), (216, 37169), (230, 37088), (232, 37079), (234, 37073), (241, 37016), (246, 36995), (249, 36977), (251, 36971), (262, 36911),

Gene: Kalpine\_54 Start: 37934, Stop: 37164, Start Num: 148

Candidate Starts for Kalpine\_54:

(1, 38438), (10, 38288), (34, 38096), (57, 38012), (Start: 148 @37934 has 548 MA's), (159, 37865), (167, 37808), (173, 37748), (221, 37484), (232, 37421), (233, 37418), (234, 37415), (236, 37391), (249, 37319), (251, 37313),

Gene: Kampy\_52 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Kampy\_52:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Kanely\_53 Start: 38096, Stop: 37329, Start Num: 148

Candidate Starts for Kanely\_53:

(94, 38219), (Start: 148 @38096 has 548 MA's), (Start: 157 @38036 has 2 MA's), (164, 37991), (173, 37910), (181, 37874), (188, 37835), (204, 37745), (208, 37718), (219, 37658), (221, 37649), (232,

37586), (246, 37502), (249, 37484), (251, 37478), (259, 37433), (261, 37421),

Gene: Karimac\_70 Start: 52423, Stop: 53184, Start Num: 144

Candidate Starts for Karimac\_70:

(133, 52393), (134, 52396), (Start: 144 @52423 has 59 MA's), (150, 52435), (156, 52486), (Start: 157 @52489 has 2 MA's), (161, 52507), (192, 52723), (209, 52813), (224, 52906), (235, 52963), (248, 53029), (254, 53047),

Gene: Karp\_48 Start: 42931, Stop: 43746, Start Num: 149

Candidate Starts for Karp\_48:

(Start: 140 @42916 has 1 MA's), (142, 42919), (Start: 149 @42931 has 23 MA's), (162, 43006), (191, 43285), (192, 43288), (194, 43297), (204, 43342), (207, 43354), (232, 43495), (239, 43546), (248, 43585), (254, 43609),

Gene: Katalie136\_51 Start: 37061, Stop: 36294, Start Num: 148

Candidate Starts for Katalie136\_51:

(Start: 148 @37061 has 548 MA's), (Start: 151 @37046 has 9 MA's), (159, 36992), (167, 36935), (173, 36875), (234, 36545), (249, 36449), (251, 36443), (262, 36383),

Gene: KatherineG\_61 Start: 36994, Stop: 36230, Start Num: 148

Candidate Starts for KatherineG\_61:

(104, 37090), (106, 37084), (127, 37039), (Start: 148 @36994 has 548 MA's), (184, 36757), (206, 36640), (228, 36505), (234, 36481), (246, 36403), (249, 36385), (251, 36379), (262, 36319), (266, 36298),

Gene: Kazan\_58 Start: 36575, Stop: 35805, Start Num: 148

Candidate Starts for Kazan\_58:

(Start: 129 @36620 has 1 MA's), (Start: 148 @36575 has 548 MA's), (156, 36518), (160, 36503), (164, 36470), (167, 36449), (170, 36392), (173, 36389), (221, 36125), (232, 36062), (234, 36056), (249, 35960), (251, 35954), (269, 35858), (271, 35849),

Gene: Kenrey\_50 Start: 42267, Stop: 43082, Start Num: 149

Candidate Starts for Kenrey\_50:

(Start: 140 @42252 has 1 MA's), (Start: 149 @42267 has 23 MA's), (162, 42342), (164, 42366), (186, 42588), (189, 42600), (194, 42633), (199, 42657), (204, 42678), (239, 42882), (254, 42945),

Gene: KentuckyRacer\_75 Start: 52207, Stop: 52968, Start Num: 144

Candidate Starts for KentuckyRacer\_75:

(133, 52177), (134, 52180), (Start: 144 @52207 has 59 MA's), (150, 52219), (156, 52270), (Start: 157 @52273 has 2 MA's), (161, 52291), (192, 52507), (209, 52597), (224, 52690), (235, 52747), (248, 52813), (254, 52831),

Gene: Kerberos\_58 Start: 37551, Stop: 36784, Start Num: 148

Candidate Starts for Kerberos\_58:

(Start: 148 @37551 has 548 MA's), (159, 37482), (167, 37425), (184, 37311), (206, 37191), (208, 37170), (210, 37164), (214, 37143), (222, 37095), (227, 37059), (232, 37038), (243, 36969), (246, 36957), (249, 36939), (251, 36933), (262, 36873),

Gene: Keziacharles14\_56 Start: 38823, Stop: 38053, Start Num: 148

Candidate Starts for Keziacharles14\_56:

(Start: 148 @38823 has 548 MA's), (160, 38751), (167, 38697), (210, 38436), (214, 38415), (233, 38307), (234, 38304), (241, 38247), (246, 38226), (249, 38208), (251, 38202), (268, 38109),

Gene: Kimona\_52 Start: 35711, Stop: 34938, Start Num: 148

Candidate Starts for Kimona\_52:

(118, 35744), (Start: 148 @35711 has 548 MA's), (152, 35693), (159, 35642), (167, 35585), (188, 35450), (216, 35288), (233, 35195), (234, 35192), (240, 35138), (246, 35114), (249, 35096), (259, 35045), (269, 34994), (273, 34967),

Gene: KingCyrus\_58 Start: 39433, Stop: 38663, Start Num: 148

Candidate Starts for KingCyrus\_58:

(5, 39835), (Start: 148 @39433 has 548 MA's), (Start: 157 @39373 has 2 MA's), (167, 39307), (170, 39250), (173, 39247), (206, 39073), (221, 38983), (236, 38890), (246, 38836), (249, 38818), (251, 38812),

Gene: Kingmustik0402\_52 Start: 37101, Stop: 36334, Start Num: 117

Candidate Starts for Kingmustik0402\_52:

(Start: 117 @37101 has 107 MA's), (Start: 151 @37086 has 9 MA's), (159, 37032), (164, 36996), (167, 36975), (197, 36780), (232, 36591), (234, 36585), (249, 36489), (251, 36483),

Gene: Kipper29\_57 Start: 36588, Stop: 35818, Start Num: 148

Candidate Starts for Kipper29\_57:

(Start: 129 @36633 has 1 MA's), (Start: 148 @36588 has 548 MA's), (156, 36531), (160, 36516), (164, 36483), (167, 36462), (170, 36405), (173, 36402), (221, 36138), (232, 36075), (234, 36069), (249, 35973), (251, 35967), (269, 35871), (271, 35862),

Gene: KittenMittens\_50 Start: 36252, Stop: 35485, Start Num: 148

Candidate Starts for KittenMittens\_50:

(79, 36306), (Start: 148 @36252 has 548 MA's), (164, 36147), (167, 36126), (173, 36066), (184, 36012), (197, 35931), (234, 35736), (246, 35658), (249, 35640), (251, 35634),

Gene: Koduck\_57 Start: 36960, Stop: 36193, Start Num: 148

Candidate Starts for Koduck\_57:

(116, 37026), (Start: 148 @36960 has 548 MA's), (152, 36942), (Start: 157 @36900 has 2 MA's), (167, 36834), (186, 36705), (206, 36600), (210, 36573), (211, 36570), (222, 36504), (227, 36468), (228, 36465), (232, 36447), (243, 36378), (246, 36366), (249, 36348), (251, 36342),

Gene: Koko\_59 Start: 37093, Stop: 36323, Start Num: 148

Candidate Starts for Koko\_59:

(Start: 129 @37138 has 1 MA's), (Start: 148 @37093 has 548 MA's), (156, 37036), (160, 37021), (167, 36967), (170, 36910), (173, 36907), (221, 36643), (232, 36580), (234, 36574), (249, 36478), (251, 36472), (269, 36376), (271, 36367),

Gene: Koreni\_51 Start: 36793, Stop: 36026, Start Num: 117

Candidate Starts for Koreni\_51:

(Start: 117 @36793 has 107 MA's), (Start: 151 @36778 has 9 MA's), (159, 36724), (164, 36688), (167, 36667), (197, 36472), (232, 36283), (234, 36277), (248, 36184), (249, 36181), (251, 36175),

Gene: Kratark\_52 Start: 37267, Stop: 36500, Start Num: 117

Candidate Starts for Kratark\_52:

(Start: 117 @37267 has 107 MA's), (Start: 151 @37252 has 9 MA's), (159, 37198), (164, 37162), (167, 37141), (197, 36946), (232, 36757), (234, 36751), (249, 36655), (251, 36649),

Gene: Kremtemulon\_50 Start: 37060, Stop: 36293, Start Num: 117

Candidate Starts for Kremtemulon\_50:

(Start: 117 @37060 has 107 MA's), (Start: 151 @37045 has 9 MA's), (159, 36991), (164, 36955), (167, 36934), (197, 36739), (232, 36550), (234, 36544), (249, 36448), (251, 36442),

Gene: Krishelle\_44 Start: 33963, Stop: 33193, Start Num: 145

Candidate Starts for Krishelle\_44:

(82, 34113), (87, 34089), (111, 34041), (116, 34029), (130, 33999), (Start: 145 @33963 has 36 MA's), (Start: 148 @33957 has 548 MA's), (Start: 157 @33897 has 2 MA's), (173, 33771), (203, 33612), (204, 33606), (234, 33441), (247, 33360), (249, 33348), (251, 33342), (261, 33285), (263, 33276), (268, 33249), (277, 33198),

Gene: Kristoff\_53 Start: 37373, Stop: 36606, Start Num: 148

Candidate Starts for Kristoff\_53:

(79, 37454), (Start: 148 @37373 has 548 MA's), (Start: 157 @37313 has 2 MA's), (164, 37268), (167, 37247), (173, 37187), (197, 37052), (232, 36863), (234, 36857), (246, 36779), (249, 36761), (251, 36755),

Gene: Kumquat\_67 Start: 34615, Stop: 35379, Start Num: 147

Candidate Starts for Kumquat\_67:

(Start: 147 @34615 has 12 MA's), (161, 34696), (217, 35044), (246, 35212), (249, 35230), (258, 35278), (259, 35281), (266, 35317), (270, 35338), (271, 35341),

Gene: KyMonks1A\_53 Start: 37654, Stop: 36887, Start Num: 148

Candidate Starts for KyMonks1A\_53:

(54, 37915), (60, 37897), (62, 37894), (Start: 148 @37654 has 548 MA's), (155, 37618), (167, 37528), (188, 37396), (200, 37327), (205, 37300), (219, 37216), (232, 37141), (234, 37135), (249, 37042), (259, 36991), (263, 36970),

Gene: Kyee\_52 Start: 37110, Stop: 36343, Start Num: 117

Candidate Starts for Kyee\_52:

(Start: 117 @37110 has 107 MA's), (Start: 151 @37095 has 9 MA's), (159, 37041), (164, 37005), (167, 36984), (232, 36600), (234, 36594), (249, 36498), (251, 36492),

Gene: Kykar\_51 Start: 37426, Stop: 36659, Start Num: 148

Candidate Starts for Kykar\_51:

(61, 37666), (Start: 148 @37426 has 548 MA's), (152, 37408), (154, 37396), (167, 37300), (188, 37168), (200, 37099), (205, 37072), (219, 36988), (234, 36910), (237, 36883), (241, 36853), (242, 36850), (248, 36817), (249, 36814), (255, 36784),

Gene: L5\_54 Start: 37035, Stop: 36268, Start Num: 148

Candidate Starts for L5\_54:

(Start: 148 @37035 has 548 MA's), (Start: 157 @36975 has 2 MA's), (167, 36909), (210, 36648), (222, 36579), (227, 36543), (228, 36540), (232, 36522), (243, 36453), (246, 36441), (249, 36423), (251, 36417),

Gene: LBerry\_59 Start: 37706, Stop: 36939, Start Num: 148

Candidate Starts for LBerry\_59:

(Start: 148 @37706 has 548 MA's), (164, 37601), (167, 37580), (173, 37520), (216, 37286), (230, 37205), (232, 37196), (234, 37190), (241, 37133), (246, 37112), (249, 37094), (251, 37088),

Gene: LHTSCC\_54 Start: 37548, Stop: 36781, Start Num: 117

Candidate Starts for LHTSCC\_54:

(Start: 117 @37548 has 107 MA's), (Start: 151 @37533 has 9 MA's), (159, 37479), (164, 37443), (167, 37422), (173, 37362), (197, 37227), (232, 37038), (234, 37032), (249, 36936), (251, 36930),

Gene: LadyBird\_61 Start: 38656, Stop: 37886, Start Num: 148

Candidate Starts for LadyBird\_61:

(46, 38764), (Start: 148 @38656 has 548 MA's), (Start: 157 @38596 has 2 MA's), (164, 38551), (167, 38530), (170, 38473), (173, 38470), (197, 38335), (221, 38206), (233, 38140), (234, 38137), (236, 38113), (249, 38041), (251, 38035), (263, 37969),

Gene: Lambert1\_54 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for Lambert1\_54:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: Lamina13\_52 Start: 37403, Stop: 36636, Start Num: 148

Candidate Starts for Lamina13\_52:

(20, 37814), (38, 37712), (42, 37700), (44, 37697), (47, 37691), (51, 37667), (Start: 148 @37403 has 548 MA's), (152, 37385), (154, 37373), (167, 37277), (188, 37145), (200, 37076), (205, 37049), (210, 37019), (219, 36965), (234, 36887), (237, 36860), (241, 36830), (242, 36827), (248, 36794), (249, 36791), (255, 36761),

Gene: Landor\_57 Start: 38948, Stop: 38178, Start Num: 148

Candidate Starts for Landor\_57:

(23, 39176), (Start: 148 @38948 has 548 MA's), (167, 38822), (173, 38762), (184, 38708), (221, 38498), (233, 38432), (234, 38429), (236, 38405), (244, 38360), (249, 38333), (251, 38327),

Gene: LappelDuVide\_51 Start: 37096, Stop: 36344, Start Num: 151

Candidate Starts for LappelDuVide\_51:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (197, 36790), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: Larenn\_55 Start: 37845, Stop: 37075, Start Num: 148

Candidate Starts for Larenn\_55:

(Start: 148 @37845 has 548 MA's), (167, 37719), (170, 37662), (173, 37659), (188, 37584), (190, 37563), (221, 37395), (232, 37332), (233, 37329), (236, 37302), (246, 37248), (249, 37230), (251, 37224),

Gene: Larnav\_74 Start: 52978, Stop: 53733, Start Num: 144

Candidate Starts for Larnav\_74:

(Start: 144 @52978 has 59 MA's), (150, 52987), (156, 53038), (161, 53059), (162, 53062), (192, 53275), (202, 53320), (207, 53347), (209, 53365), (220, 53428), (231, 53485), (248, 53581),

Gene: LarryKay\_58 Start: 37732, Stop: 36965, Start Num: 148

Candidate Starts for LarryKay\_58:

(Start: 148 @37732 has 548 MA's), (164, 37627), (167, 37606), (173, 37546), (216, 37312), (230, 37231), (232, 37222), (234, 37216), (241, 37159), (246, 37138), (249, 37120), (251, 37114),

Gene: LastResort\_59 Start: 36573, Stop: 35809, Start Num: 148

Candidate Starts for LastResort\_59:

(104, 36669), (106, 36663), (127, 36618), (Start: 148 @36573 has 548 MA's), (184, 36336), (206, 36219), (228, 36084), (234, 36060), (246, 35982), (249, 35964), (251, 35958), (262, 35898), (266, 35877),

Gene: Lemur\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Lemur\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Leo04\_74 Start: 53493, Stop: 54248, Start Num: 144

Candidate Starts for Leo04\_74:

(Start: 144 @53493 has 59 MA's), (150, 53502), (156, 53553), (161, 53574), (162, 53577), (192, 53790), (202, 53835), (207, 53862), (220, 53943), (231, 54000), (248, 54096),

Gene: LeoAvram\_52 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for LeoAvram\_52:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (178, 36899), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Leogania\_56 Start: 38875, Stop: 38105, Start Num: 65

Candidate Starts for Leogania\_56:

(23, 39049), (Start: 65 @38875 has 2 MA's), (167, 38749), (170, 38692), (173, 38689), (206, 38515), (221, 38425), (236, 38332), (244, 38287), (246, 38278), (249, 38260), (251, 38254),

Gene: Lesedi\_48 Start: 36626, Stop: 35859, Start Num: 148

Candidate Starts for Lesedi\_48:

(Start: 148 @36626 has 548 MA's), (155, 36590), (Start: 157 @36566 has 2 MA's), (164, 36521), (173, 36440), (181, 36404), (188, 36365), (204, 36275), (208, 36248), (219, 36188), (221, 36179), (232, 36116), (241, 36053), (246, 36032), (249, 36014), (251, 36008), (259, 35963), (261, 35951),

Gene: Lev2\_48 Start: 36199, Stop: 35429, Start Num: 145

Candidate Starts for Lev2\_48:

(Start: 145 @36199 has 36 MA's), (164, 36094), (167, 36073), (173, 36013), (193, 35905), (202, 35863), (216, 35779), (234, 35683), (249, 35587), (251, 35581),

Gene: Leviathan\_58 Start: 38306, Stop: 37536, Start Num: 148

Candidate Starts for Leviathan\_58:

(23, 38534), (Start: 148 @38306 has 548 MA's), (Start: 157 @38246 has 2 MA's), (167, 38180), (170, 38123), (173, 38120), (206, 37946), (221, 37856), (236, 37763), (246, 37709), (249, 37691), (251, 37685),

Gene: Liandry\_68 Start: 52362, Stop: 53123, Start Num: 144

Candidate Starts for Liandry\_68:

(Start: 144 @52362 has 59 MA's), (150, 52374), (156, 52425), (204, 52722), (224, 52845), (231, 52872), (235, 52902), (236, 52908), (248, 52968), (254, 52986), (276, 53109),

Gene: LilMartin\_66 Start: 51303, Stop: 52058, Start Num: 144

Candidate Starts for LilMartin\_66:

(Start: 144 @51303 has 59 MA's), (150, 51312), (153, 51327), (156, 51363), (161, 51384), (162, 51387), (220, 51753), (248, 51906), (250, 51912),

Gene: LiTurb\_57 Start: 38130, Stop: 37360, Start Num: 148

Candidate Starts for LiTurb\_57:

(23, 38358), (Start: 148 @38130 has 548 MA's), (Start: 157 @38070 has 2 MA's), (167, 38004), (170, 37947), (173, 37944), (206, 37770), (221, 37680), (236, 37587), (246, 37533), (249, 37515), (251, 37509),

Gene: Lilith\_59 Start: 37695, Stop: 36928, Start Num: 148

Candidate Starts for Lilith\_59:

(Start: 148 @37695 has 548 MA's), (164, 37590), (167, 37569), (173, 37509), (230, 37194), (232, 37185), (234, 37179), (241, 37122), (246, 37101), (249, 37083), (251, 37077),

Gene: Lillie\_44 Start: 33597, Stop: 32833, Start Num: 148

Candidate Starts for Lillie\_44:

(82, 33753), (87, 33729), (111, 33681), (116, 33669), (130, 33639), (Start: 145 @33603 has 36 MA's), (Start: 148 @33597 has 548 MA's), (Start: 157 @33537 has 2 MA's), (173, 33411), (203, 33252), (204, 33246), (234, 33081), (247, 33000), (249, 32988), (251, 32982), (261, 32925), (263, 32916), (268, 32889), (277, 32838),

Gene: Limpid\_46 Start: 41194, Stop: 42009, Start Num: 149

Candidate Starts for Limpid\_46:

(Start: 140 @41179 has 1 MA's), (Start: 149 @41194 has 23 MA's), (162, 41269), (182, 41488), (184, 41500), (194, 41560), (199, 41584), (204, 41605), (212, 41653), (239, 41809), (246, 41833), (254, 41872), (259, 41902), (265, 41935), (267, 41944), (272, 41980),

Gene: LittleB\_52 Start: 37113, Stop: 36346, Start Num: 117

Candidate Starts for LittleB\_52:

(Start: 117 @37113 has 107 MA's), (Start: 151 @37098 has 9 MA's), (159, 37044), (164, 37008), (167, 36987), (197, 36792), (232, 36603), (234, 36597), (249, 36501), (251, 36495),

Gene: LittleCherry\_48 Start: 36374, Stop: 35604, Start Num: 148

Candidate Starts for LittleCherry\_48:

(Start: 148 @36374 has 548 MA's), (164, 36269), (167, 36248), (173, 36188), (186, 36119), (193, 36080), (197, 36053), (202, 36038), (206, 36017), (234, 35858), (249, 35762), (251, 35756), (261, 35699), (263, 35690),

Gene: LittleGuy\_52 Start: 37008, Stop: 36241, Start Num: 117

Candidate Starts for LittleGuy\_52:

(Start: 117 @37008 has 107 MA's), (Start: 151 @36993 has 9 MA's), (159, 36939), (164, 36903), (167, 36882), (197, 36687), (232, 36498), (234, 36492), (249, 36396), (251, 36390),

Gene: LochMonster\_53 Start: 37348, Stop: 36581, Start Num: 117

Candidate Starts for LochMonster\_53:

(Start: 117 @37348 has 107 MA's), (Start: 151 @37333 has 9 MA's), (159, 37279), (164, 37243), (167, 37222), (197, 37027), (232, 36838), (234, 36832), (249, 36736), (251, 36730),

Gene: Lockley\_50 Start: 37353, Stop: 36586, Start Num: 148

Candidate Starts for Lockley\_50:

(94, 37476), (Start: 148 @37353 has 548 MA's), (155, 37317), (Start: 157 @37293 has 2 MA's), (164, 37248), (173, 37167), (181, 37131), (188, 37092), (204, 37002), (208, 36975), (219, 36915), (221, 36906), (232, 36843), (241, 36780), (246, 36759), (249, 36741), (251, 36735), (259, 36690), (261, 36678),

Gene: Lokk\_53 Start: 37130, Stop: 36360, Start Num: 148

Candidate Starts for Lokk\_53:

(Start: 148 @37130 has 548 MA's), (167, 37004), (170, 36947), (184, 36890), (188, 36869), (210, 36743), (221, 36680), (232, 36617), (236, 36587), (249, 36515), (251, 36509), (261, 36452),

Gene: LoneWolf\_57 Start: 37715, Stop: 36945, Start Num: 148

Candidate Starts for LoneWolf\_57:

(Start: 148 @37715 has 548 MA's), (Start: 151 @37700 has 9 MA's), (159, 37646), (167, 37589), (180, 37496), (210, 37328), (228, 37220), (229, 37214), (233, 37199), (234, 37196), (246, 37118), (249,

37100), (251, 37094), (272, 36974),

Gene: Looper\_60 Start: 36485, Stop: 35721, Start Num: 148

Candidate Starts for Looper\_60:

(104, 36581), (106, 36575), (127, 36530), (Start: 148 @36485 has 548 MA's), (184, 36248), (206, 36131), (228, 35996), (234, 35972), (246, 35894), (249, 35876), (251, 35870), (262, 35810), (266, 35789),

Gene: Lorenzo\_52 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Lorenzo\_52:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Loser\_58 Start: 38687, Stop: 37917, Start Num: 148

Candidate Starts for Loser\_58:

(23, 38909), (Start: 148 @38687 has 548 MA's), (167, 38561), (173, 38501), (174, 38498), (205, 38330), (221, 38237), (232, 38174), (233, 38171), (234, 38168), (236, 38144), (249, 38072), (251, 38066),

Gene: Louie6\_57 Start: 37731, Stop: 36964, Start Num: 148

Candidate Starts for Louie6\_57:

(Start: 148 @37731 has 548 MA's), (164, 37626), (167, 37605), (173, 37545), (216, 37311), (230, 37230), (232, 37221), (234, 37215), (241, 37158), (246, 37137), (249, 37119), (251, 37113),

Gene: Luchador\_60 Start: 39445, Stop: 38678, Start Num: 148

Candidate Starts for Luchador\_60:

(75, 39622), (93, 39559), (Start: 148 @39445 has 548 MA's), (167, 39319), (210, 39058), (221, 38995), (227, 38953), (228, 38950), (243, 38863), (246, 38851), (249, 38833), (251, 38827),

Gene: Lucivia\_56 Start: 37172, Stop: 36405, Start Num: 148

Candidate Starts for Lucivia\_56:

(137, 37184), (Start: 148 @37172 has 548 MA's), (159, 37103), (167, 37046), (186, 36917), (190, 36890), (192, 36881), (210, 36785), (227, 36680), (243, 36590), (246, 36578), (249, 36560), (251, 36554), (261, 36497), (266, 36473),

Gene: Lucyedi\_57 Start: 37628, Stop: 36858, Start Num: 148

Candidate Starts for Lucyedi\_57:

(Start: 148 @37628 has 548 MA's), (167, 37502), (183, 37391), (192, 37337), (210, 37241), (228, 37133), (232, 37115), (233, 37112), (234, 37109), (235, 37091), (243, 37043), (246, 37031), (249, 37013), (253, 37001), (256, 36977), (269, 36911),

Gene: LugYA\_61 Start: 37703, Stop: 36936, Start Num: 148

Candidate Starts for LugYA\_61:

(Start: 148 @37703 has 548 MA's), (164, 37598), (167, 37577), (173, 37517), (216, 37283), (230, 37202), (232, 37193), (234, 37187), (241, 37130), (246, 37109), (249, 37091), (251, 37085),

Gene: LukeCage\_70 Start: 52177, Stop: 52938, Start Num: 144

Candidate Starts for LukeCage\_70:

(133, 52147), (134, 52150), (Start: 144 @52177 has 59 MA's), (150, 52189), (156, 52240), (Start: 157 @52243 has 2 MA's), (161, 52261), (202, 52522), (235, 52717), (248, 52783), (254, 52801), (269, 52885),

Gene: Lululemon\_70 Start: 52374, Stop: 53129, Start Num: 144

Candidate Starts for Lululemon\_70:

(Start: 144 @52374 has 59 MA's), (150, 52383), (156, 52434), (161, 52455), (162, 52458), (192, 52671), (202, 52716), (207, 52743), (220, 52824), (231, 52881), (248, 52977),

Gene: Lunsford\_53 Start: 37091, Stop: 36339, Start Num: 151

Candidate Starts for Lunsford\_53:

(Start: 117 @37106 has 107 MA's), (Start: 151 @37091 has 9 MA's), (159, 37037), (164, 37001), (167, 36980), (197, 36785), (232, 36596), (234, 36590), (249, 36494), (251, 36488),

Gene: MA5\_55 Start: 36871, Stop: 36104, Start Num: 148

Candidate Starts for MA5\_55:

(Start: 148 @36871 has 548 MA's), (164, 36766), (167, 36745), (173, 36685), (214, 36466), (233, 36358), (234, 36355), (241, 36298), (249, 36259), (277, 36109),

Gene: MK4\_55 Start: 36973, Stop: 36206, Start Num: 148

Candidate Starts for MK4\_55:

(79, 37030), (Start: 148 @36973 has 548 MA's), (164, 36868), (167, 36847), (173, 36787), (214, 36568), (233, 36460), (234, 36457), (241, 36400), (249, 36361), (277, 36211),

Gene: MPlant7149\_50 Start: 36722, Stop: 35955, Start Num: 148

Candidate Starts for MPlant7149\_50:

(Start: 148 @36722 has 548 MA's), (155, 36686), (Start: 157 @36662 has 2 MA's), (164, 36617), (173, 36536), (181, 36500), (188, 36461), (204, 36371), (208, 36344), (219, 36284), (221, 36275), (232, 36212), (246, 36128), (249, 36110), (251, 36104), (259, 36059), (261, 36047),

Gene: MaCh\_56 Start: 37102, Stop: 36335, Start Num: 148

Candidate Starts for MaCh\_56:

(137, 37114), (Start: 148 @37102 has 548 MA's), (159, 37033), (167, 36976), (186, 36847), (190, 36820), (192, 36811), (210, 36715), (227, 36610), (243, 36520), (246, 36508), (249, 36490), (251, 36484), (261, 36427), (266, 36403),

Gene: Mabel\_55 Start: 36704, Stop: 35937, Start Num: 148

Candidate Starts for Mabel\_55:

(137, 36716), (Start: 148 @36704 has 548 MA's), (159, 36635), (167, 36578), (186, 36449), (190, 36422), (192, 36413), (210, 36317), (227, 36212), (243, 36122), (246, 36110), (249, 36092), (251, 36086), (261, 36029), (266, 36005),

Gene: MadMarie\_58 Start: 37704, Stop: 36937, Start Num: 148

Candidate Starts for MadMarie\_58:

(Start: 148 @37704 has 548 MA's), (164, 37599), (167, 37578), (173, 37518), (216, 37284), (230, 37203), (232, 37194), (234, 37188), (241, 37131), (246, 37110), (249, 37092), (251, 37086),

Gene: Magnar\_51 Start: 38167, Stop: 37400, Start Num: 148

Candidate Starts for Magnar\_51:

(Start: 148 @38167 has 548 MA's), (152, 38149), (154, 38137), (167, 38041), (188, 37909), (200, 37840), (205, 37813), (219, 37729), (234, 37651), (237, 37624), (241, 37594), (242, 37591), (248, 37558), (249, 37555), (255, 37525),

Gene: Mainiac\_58 Start: 37696, Stop: 36929, Start Num: 148

Candidate Starts for Mainiac\_58:

(Start: 148 @37696 has 548 MA's), (164, 37591), (167, 37570), (173, 37510), (216, 37276), (230, 37195), (232, 37186), (234, 37180), (241, 37123), (246, 37102), (249, 37084), (251, 37078),

Gene: Makemake\_51 Start: 38226, Stop: 37459, Start Num: 148

Candidate Starts for Makemake\_51:

(Start: 148 @38226 has 548 MA's), (155, 38190), (Start: 157 @38166 has 2 MA's), (164, 38121), (173, 38040), (181, 38004), (188, 37965), (204, 37875), (208, 37848), (219, 37788), (221, 37779), (232, 37716), (246, 37632), (249, 37614), (251, 37608), (259, 37563), (261, 37551),

Gene: Malec\_56 Start: 38412, Stop: 37642, Start Num: 148

Candidate Starts for Malec\_56:

(Start: 148 @38412 has 548 MA's), (167, 38286), (170, 38229), (173, 38226), (188, 38151), (190, 38130), (221, 37962), (232, 37899), (233, 37896), (236, 37869), (246, 37815), (249, 37797), (251, 37791),

Gene: Malinsilva\_60 Start: 37694, Stop: 36927, Start Num: 148

Candidate Starts for Malinsilva\_60:

(Start: 148 @37694 has 548 MA's), (164, 37589), (167, 37568), (173, 37508), (230, 37193), (232, 37184), (234, 37178), (241, 37121), (246, 37100), (249, 37082), (251, 37076),

Gene: Maminaina\_55 Start: 37476, Stop: 36706, Start Num: 148

Candidate Starts for Maminaina\_55:

(Start: 148 @37476 has 548 MA's), (159, 37407), (167, 37350), (180, 37257), (198, 37152), (210, 37089), (228, 36981), (229, 36975), (233, 36960), (234, 36957), (246, 36879), (249, 36861), (251, 36855), (272, 36735),

Gene: Manu\_58 Start: 37592, Stop: 36825, Start Num: 148

Candidate Starts for Manu\_58:

(Start: 147 @37595 has 12 MA's), (Start: 148 @37592 has 548 MA's), (164, 37487), (167, 37466), (173, 37406), (216, 37172), (230, 37091), (232, 37082), (234, 37076), (241, 37019), (246, 36998), (249, 36980), (251, 36974), (262, 36914),

Gene: Manuel\_66 Start: 34930, Stop: 35676, Start Num: 151

Candidate Starts for Manuel\_66:

(142, 34906), (Start: 147 @34912 has 12 MA's), (Start: 151 @34930 has 9 MA's), (161, 34993), (179, 35131), (194, 35215), (217, 35341), (233, 35431), (246, 35509), (249, 35527), (254, 35551), (257, 35566), (258, 35575), (259, 35578), (266, 35614), (270, 35635),

Gene: MarQuardt\_58 Start: 37704, Stop: 36937, Start Num: 148

Candidate Starts for MarQuardt\_58:

(Start: 148 @37704 has 548 MA's), (164, 37599), (167, 37578), (173, 37518), (216, 37284), (230, 37203), (232, 37194), (234, 37188), (241, 37131), (246, 37110), (249, 37092), (251, 37086),

Gene: Marcell\_49 Start: 37092, Stop: 36325, Start Num: 148

Candidate Starts for Marcell\_49:

(24, 37467), (56, 37341), (63, 37323), (Start: 148 @37092 has 548 MA's), (155, 37056), (Start: 157 @37032 has 2 MA's), (164, 36987), (173, 36906), (181, 36870), (188, 36831), (204, 36741), (208, 36714), (219, 36654), (221, 36645), (232, 36582), (241, 36519), (246, 36498), (249, 36480), (251, 36474), (259, 36429), (261, 36417),

Gene: Marge\_51 Start: 37903, Stop: 37136, Start Num: 148

Candidate Starts for Marge\_51:

(Start: 148 @37903 has 548 MA's), (155, 37867), (167, 37777), (188, 37645), (200, 37576), (205, 37549), (219, 37465), (232, 37390), (234, 37384), (249, 37291), (259, 37240), (263, 37219),

Gene: Margo\_54 Start: 37503, Stop: 36736, Start Num: 148

Candidate Starts for Margo\_54:

(79, 37557), (Start: 148 @37503 has 548 MA's), (167, 37377), (173, 37317), (206, 37146), (214, 37098), (234, 36987), (241, 36930), (246, 36909), (249, 36891), (251, 36885), (277, 36741),

Gene: Marie\_58 Start: 37702, Stop: 36935, Start Num: 148

Candidate Starts for Marie\_58:

(Start: 148 @37702 has 548 MA's), (164, 37597), (167, 37576), (173, 37516), (216, 37282), (230, 37201), (232, 37192), (234, 37186), (241, 37129), (246, 37108), (249, 37090), (251, 37084),

Gene: Marius\_59 Start: 37589, Stop: 36822, Start Num: 148

Candidate Starts for Marius\_59:

(Start: 147 @37592 has 12 MA's), (Start: 148 @37589 has 548 MA's), (164, 37484), (167, 37463), (173, 37403), (216, 37169), (230, 37088), (232, 37079), (234, 37073), (241, 37016), (246, 36995), (249, 36977), (251, 36971), (262, 36911),

Gene: Maroc7\_49 Start: 37020, Stop: 36253, Start Num: 148

Candidate Starts for Maroc7\_49:

(Start: 148 @37020 has 548 MA's), (Start: 157 @36960 has 2 MA's), (164, 36915), (173, 36834), (181, 36798), (188, 36759), (204, 36669), (208, 36642), (219, 36582), (221, 36573), (232, 36510), (246, 36426), (249, 36408), (251, 36402), (259, 36357), (261, 36345),

Gene: Marsha\_51 Start: 38459, Stop: 37692, Start Num: 148

Candidate Starts for Marsha\_51:

(54, 38720), (60, 38702), (62, 38699), (Start: 148 @38459 has 548 MA's), (Start: 157 @38399 has 2 MA's), (164, 38354), (173, 38273), (181, 38237), (188, 38198), (204, 38108), (208, 38081), (219, 38021), (221, 38012), (232, 37949), (241, 37886), (246, 37865), (249, 37847), (251, 37841), (259, 37796), (261, 37784),

Gene: MarysWell\_48 Start: 36698, Stop: 35928, Start Num: 145

Candidate Starts for MarysWell\_48:

(Start: 145 @36698 has 36 MA's), (164, 36593), (167, 36572), (173, 36512), (193, 36404), (202, 36362), (216, 36278), (234, 36182), (249, 36086), (251, 36080), (261, 36023),

Gene: Maverick\_52 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Maverick\_52:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Maxo\_53 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Maxo\_53:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Mazhar510\_52 Start: 37098, Stop: 36346, Start Num: 151

Candidate Starts for Mazhar510\_52:

(Start: 117 @37113 has 107 MA's), (Start: 151 @37098 has 9 MA's), (159, 37044), (164, 37008), (167, 36987), (232, 36603), (234, 36597), (249, 36501), (251, 36495),

Gene: McFly\_57 Start: 36569, Stop: 35799, Start Num: 148

Candidate Starts for McFly\_57:

(Start: 129 @36614 has 1 MA's), (Start: 148 @36569 has 548 MA's), (156, 36512), (160, 36497), (164, 36464), (167, 36443), (170, 36386), (173, 36383), (221, 36119), (232, 36056), (234, 36050), (249, 35954), (251, 35948), (269, 35852), (271, 35843),

Gene: McGuire\_53 Start: 37551, Stop: 36784, Start Num: 148

Candidate Starts for McGuire\_53:

(Start: 148 @37551 has 548 MA's), (155, 37515), (167, 37425), (188, 37293), (200, 37224), (205, 37197), (219, 37113), (232, 37038), (234, 37032), (249, 36939), (259, 36888), (263, 36867),

Gene: Medusa\_52 Start: 37111, Stop: 36344, Start Num: 117

Candidate Starts for Medusa\_52:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (197, 36790), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: MeeZee\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for MeeZee\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: MeganTheeKilla\_48 Start: 41434, Stop: 42249, Start Num: 149

Candidate Starts for MeganTheeKilla\_48:

(Start: 140 @41419 has 1 MA's), (Start: 149 @41434 has 23 MA's), (162, 41509), (164, 41533), (186, 41755), (189, 41767), (194, 41800), (202, 41833), (204, 41845), (239, 42049), (254, 42112),

Gene: Melvin\_54 Start: 37107, Stop: 36340, Start Num: 117

Candidate Starts for Melvin\_54:

(Start: 117 @37107 has 107 MA's), (Start: 151 @37092 has 9 MA's), (159, 37038), (164, 37002), (167, 36981), (197, 36786), (232, 36597), (234, 36591), (249, 36495), (251, 36489),

Gene: Methuselah\_54 Start: 37726, Stop: 36959, Start Num: 148

Candidate Starts for Methuselah\_54:

(Start: 148 @37726 has 548 MA's), (164, 37621), (167, 37600), (173, 37540), (216, 37306), (230, 37225), (232, 37216), (234, 37210), (241, 37153), (246, 37132), (249, 37114), (251, 37108),

Gene: Micasa\_48 Start: 36542, Stop: 35772, Start Num: 148

Candidate Starts for Micasa\_48:

(Start: 148 @36542 has 548 MA's), (164, 36437), (167, 36416), (173, 36356), (186, 36287), (193, 36248), (202, 36206), (234, 36026), (249, 35930), (251, 35924), (263, 35858),

Gene: Michley\_51 Start: 37196, Stop: 36429, Start Num: 148

Candidate Starts for Michley\_51:

(Start: 148 @37196 has 548 MA's), (155, 37160), (Start: 157 @37136 has 2 MA's), (164, 37091), (173, 37010), (181, 36974), (188, 36935), (204, 36845), (208, 36818), (219, 36758), (221, 36749), (232, 36686), (241, 36623), (246, 36602), (249, 36584), (251, 36578), (259, 36533), (261, 36521),

Gene: Microwolf\_58 Start: 37718, Stop: 36951, Start Num: 148

Candidate Starts for Microwolf\_58:

(Start: 148 @37718 has 548 MA's), (164, 37613), (167, 37592), (173, 37532), (230, 37217), (232, 37208), (234, 37202), (241, 37145), (246, 37124), (249, 37106), (251, 37100),

Gene: MiculUcigas\_56 Start: 37637, Stop: 36867, Start Num: 148

Candidate Starts for MiculUcigas\_56:

(23, 37856), (Start: 148 @37637 has 548 MA's), (167, 37511), (170, 37454), (173, 37451), (174, 37448), (221, 37187), (232, 37124), (233, 37121), (234, 37118), (236, 37094), (249, 37022), (251, 37016),

Gene: Midas2\_47 Start: 36444, Stop: 35674, Start Num: 148

Candidate Starts for Midas2\_47:

(Start: 148 @36444 has 548 MA's), (164, 36339), (167, 36318), (173, 36258), (186, 36189), (193, 36150), (202, 36108), (234, 35928), (249, 35832), (251, 35826), (263, 35760),

Gene: Miko\_53 Start: 37908, Stop: 37138, Start Num: 148

Candidate Starts for Miko\_53:

(23, 38214), (Start: 148 @37908 has 548 MA's), (167, 37782), (170, 37725), (173, 37722), (174, 37719), (184, 37668), (188, 37647), (210, 37521), (221, 37458), (232, 37395), (236, 37365), (249, 37293), (251, 37287), (261, 37230),

Gene: Milcery\_48 Start: 36331, Stop: 35561, Start Num: 148

Candidate Starts for Milcery\_48:

(Start: 148 @36331 has 548 MA's), (164, 36226), (167, 36205), (173, 36145), (186, 36076), (193, 36037), (197, 36010), (202, 35995), (234, 35815), (249, 35719), (251, 35713), (263, 35647),

Gene: Mildred21\_67 Start: 51499, Stop: 52254, Start Num: 144

Candidate Starts for Mildred21\_67:

(Start: 144 @51499 has 59 MA's), (150, 51508), (153, 51523), (156, 51559), (158, 51568), (161, 51580), (162, 51583), (192, 51796), (207, 51868), (224, 51979), (239, 52063), (248, 52102), (271, 52210),

Gene: Millski\_51 Start: 37113, Stop: 36346, Start Num: 117

Candidate Starts for Millski\_51:

(Start: 117 @37113 has 107 MA's), (Start: 151 @37098 has 9 MA's), (159, 37044), (164, 37008), (167, 36987), (197, 36792), (232, 36603), (234, 36597), (249, 36501), (251, 36495),

Gene: MindFlayer\_69 Start: 51925, Stop: 52686, Start Num: 144

Candidate Starts for MindFlayer\_69:

(133, 51895), (134, 51898), (Start: 144 @51925 has 59 MA's), (150, 51937), (156, 51988), (Start: 157 @51991 has 2 MA's), (161, 52009), (192, 52225), (209, 52315), (224, 52408), (235, 52465), (248, 52531), (254, 52549),

Gene: MinecraftSteve\_61 Start: 36794, Stop: 36030, Start Num: 148

Candidate Starts for MinecraftSteve\_61:

(Start: 148 @36794 has 548 MA's), (Start: 157 @36737 has 2 MA's), (184, 36557), (206, 36440), (228, 36305), (234, 36281), (246, 36203), (249, 36185), (251, 36179), (262, 36119), (266, 36098),

Gene: Miramae\_50 Start: 36559, Stop: 35792, Start Num: 117

Candidate Starts for Miramae\_50:

(Start: 117 @36559 has 107 MA's), (Start: 151 @36544 has 9 MA's), (159, 36490), (167, 36433), (197, 36238), (232, 36049), (234, 36043), (249, 35947), (251, 35941),

Gene: Misomonster\_59 Start: 37729, Stop: 36962, Start Num: 148

Candidate Starts for Misomonster\_59:

(Start: 148 @37729 has 548 MA's), (164, 37624), (167, 37603), (173, 37543), (216, 37309), (230, 37228), (232, 37219), (234, 37213), (241, 37156), (246, 37135), (249, 37117), (251, 37111),

Gene: MissWhite\_55 Start: 36201, Stop: 35431, Start Num: 148

Candidate Starts for MissWhite\_55:

(120, 36264), (122, 36258), (Start: 148 @36201 has 548 MA's), (Start: 157 @36141 has 2 MA's), (159, 36132), (164, 36096), (167, 36075), (206, 35841), (210, 35814), (214, 35793), (232, 35688), (234, 35682), (235, 35664), (246, 35604), (249, 35586), (251, 35580), (263, 35514), (269, 35484), (277,

35436),

Gene: Moab\_49 Start: 43302, Stop: 44117, Start Num: 149

Candidate Starts for Moab\_49:

(Start: 140 @43287 has 1 MA's), (Start: 149 @43302 has 23 MA's), (154, 43326), (162, 43377), (172, 43536), (186, 43623), (189, 43635), (194, 43668), (204, 43713), (218, 43794), (239, 43917), (248, 43956), (254, 43980), (273, 44091), (276, 44103),

Gene: Molly\_52 Start: 36766, Stop: 35999, Start Num: 148

Candidate Starts for Molly\_52:

(24, 37141), (56, 37015), (63, 36997), (Start: 148 @36766 has 548 MA's), (155, 36730), (167, 36640), (188, 36508), (200, 36439), (205, 36412), (219, 36328), (232, 36253), (234, 36247), (249, 36154), (259, 36103), (263, 36082),

Gene: Monet\_54 Start: 38835, Stop: 38128, Start Num: 157

Candidate Starts for Monet\_54:

(Start: 148 @38895 has 548 MA's), (155, 38859), (Start: 157 @38835 has 2 MA's), (164, 38790), (173, 38709), (181, 38673), (188, 38634), (204, 38544), (208, 38517), (219, 38457), (221, 38448), (232, 38385), (241, 38322), (246, 38301), (249, 38283), (251, 38277), (259, 38232), (261, 38220),

Gene: MoneyMay\_58 Start: 37702, Stop: 36935, Start Num: 148

Candidate Starts for MoneyMay\_58:

(Start: 148 @37702 has 548 MA's), (164, 37597), (167, 37576), (173, 37516), (216, 37282), (230, 37201), (232, 37192), (234, 37186), (241, 37129), (246, 37108), (249, 37090), (251, 37084),

Gene: Moose\_51 Start: 37255, Stop: 36488, Start Num: 148

Candidate Starts for Moose\_51:

(Start: 148 @37255 has 548 MA's), (152, 37237), (154, 37225), (167, 37129), (188, 36997), (200, 36928), (205, 36901), (210, 36871), (219, 36817), (234, 36739), (237, 36712), (241, 36682), (242, 36679), (248, 36646), (249, 36643), (255, 36613),

Gene: Morpher26\_51 Start: 37082, Stop: 36315, Start Num: 148

Candidate Starts for Morpher26\_51:

(Start: 148 @37082 has 548 MA's), (Start: 151 @37067 has 9 MA's), (159, 37013), (167, 36956), (173, 36896), (234, 36566), (249, 36470), (251, 36464), (262, 36404),

Gene: Morrow\_53 Start: 37118, Stop: 36351, Start Num: 117

Candidate Starts for Morrow\_53:

(Start: 117 @37118 has 107 MA's), (Start: 151 @37103 has 9 MA's), (159, 37049), (164, 37013), (167, 36992), (197, 36797), (232, 36608), (234, 36602), (249, 36506), (251, 36500),

Gene: MuchMore\_61 Start: 37694, Stop: 36927, Start Num: 148

Candidate Starts for MuchMore\_61:

(Start: 148 @37694 has 548 MA's), (164, 37589), (167, 37568), (173, 37508), (230, 37193), (232, 37184), (234, 37178), (241, 37121), (246, 37100), (249, 37082), (251, 37076),

Gene: Mugiwara\_72 Start: 52676, Stop: 53437, Start Num: 144

Candidate Starts for Mugiwara\_72:

(133, 52646), (134, 52649), (Start: 144 @52676 has 59 MA's), (150, 52688), (156, 52739), (Start: 157 @52742 has 2 MA's), (161, 52760), (192, 52976), (202, 53021), (235, 53216), (236, 53222), (248, 53282), (254, 53300),

Gene: MulchMansion\_66 Start: 51303, Stop: 52058, Start Num: 144

Candidate Starts for MulchMansion\_66:

(Start: 144 @51303 has 59 MA's), (150, 51312), (153, 51327), (156, 51363), (161, 51384), (162, 51387), (220, 51753), (248, 51906), (250, 51912),

Gene: Mulciber\_55 Start: 36660, Stop: 35893, Start Num: 148

Candidate Starts for Mulciber\_55:

(137, 36672), (Start: 148 @36660 has 548 MA's), (159, 36591), (167, 36534), (186, 36405), (190, 36378), (192, 36369), (210, 36273), (227, 36168), (243, 36078), (246, 36066), (249, 36048), (251, 36042), (261, 35985), (266, 35961),

Gene: Munch\_56 Start: 37123, Stop: 36356, Start Num: 148

Candidate Starts for Munch\_56:

(137, 37135), (Start: 148 @37123 has 548 MA's), (159, 37054), (167, 36997), (186, 36868), (190, 36841), (192, 36832), (210, 36736), (227, 36631), (243, 36541), (246, 36529), (249, 36511), (251, 36505), (261, 36448), (266, 36424),

Gene: Mundrea\_51 Start: 37108, Stop: 36341, Start Num: 148

Candidate Starts for Mundrea\_51:

(Start: 148 @37108 has 548 MA's), (Start: 151 @37093 has 9 MA's), (159, 37039), (167, 36982), (173, 36922), (197, 36787), (203, 36763), (232, 36598), (234, 36592), (249, 36496), (251, 36490),

Gene: Muntaha\_46 Start: 43609, Stop: 44433, Start Num: 146

Candidate Starts for Muntaha\_46:

(Start: 146 @43609 has 4 MA's), (161, 43690), (162, 43693), (168, 43747), (173, 43870), (194, 43984), (204, 44029), (237, 44215), (239, 44233), (245, 44251), (265, 44359),

Gene: MyraDee\_49 Start: 33864, Stop: 33097, Start Num: 148

Candidate Starts for MyraDee\_49:

(28, 34224), (Start: 148 @33864 has 548 MA's), (Start: 157 @33804 has 2 MA's), (164, 33759), (167, 33738), (214, 33459), (232, 33354), (233, 33351), (234, 33348), (235, 33330), (246, 33270), (247, 33264), (249, 33252), (251, 33246), (262, 33186), (277, 33102),

Gene: Myxus\_56 Start: 37681, Stop: 36911, Start Num: 148

Candidate Starts for Myxus\_56:

(Start: 148 @37681 has 548 MA's), (159, 37612), (167, 37555), (188, 37420), (198, 37357), (206, 37321), (210, 37294), (222, 37225), (228, 37186), (229, 37180), (233, 37165), (234, 37162), (246, 37084), (249, 37066), (251, 37060), (272, 36940),

Gene: NaSiaTalie\_56 Start: 37731, Stop: 36961, Start Num: 148

Candidate Starts for NaSiaTalie\_56:

(23, 37950), (Start: 148 @37731 has 548 MA's), (167, 37605), (170, 37548), (173, 37545), (174, 37542), (221, 37281), (232, 37218), (233, 37215), (234, 37212), (236, 37188), (249, 37116), (251, 37110),

Gene: Naca\_49 Start: 36821, Stop: 36051, Start Num: 148

Candidate Starts for Naca\_49:

(Start: 148 @36821 has 548 MA's), (164, 36716), (167, 36695), (173, 36635), (197, 36500), (202, 36485), (206, 36464), (234, 36305), (249, 36209), (251, 36203),

Gene: Naiad\_43 Start: 33616, Stop: 32846, Start Num: 145

Candidate Starts for Naiad\_43:

(82, 33766), (87, 33742), (111, 33694), (116, 33682), (130, 33652), (Start: 145 @33616 has 36 MA's), (Start: 148 @33610 has 548 MA's), (Start: 157 @33550 has 2 MA's), (173, 33424), (203, 33265), (204,

(33259), (234, 33094), (247, 33013), (249, 33001), (251, 32995), (261, 32938), (263, 32929), (268, 32902), (277, 32851),

Gene: Naira\_54 Start: 39660, Stop: 38893, Start Num: 148

Candidate Starts for Naira\_54:

(94, 39783), (Start: 148 @39660 has 548 MA's), (Start: 157 @39600 has 2 MA's), (164, 39555), (173, 39474), (181, 39438), (188, 39399), (204, 39309), (208, 39282), (219, 39222), (221, 39213), (232, 39150), (241, 39087), (246, 39066), (249, 39048), (251, 39042), (259, 38997), (261, 38985),

Gene: Naji\_58 Start: 37552, Stop: 36785, Start Num: 148

Candidate Starts for Naji\_58:

(Start: 148 @37552 has 548 MA's), (159, 37483), (167, 37426), (184, 37312), (206, 37192), (208, 37171), (210, 37165), (214, 37144), (222, 37096), (227, 37060), (232, 37039), (243, 36970), (246, 36958), (249, 36940), (251, 36934), (262, 36874),

Gene: Nancinator\_44 Start: 33530, Stop: 32766, Start Num: 148

Candidate Starts for Nancinator\_44:

(82, 33686), (87, 33662), (111, 33614), (116, 33602), (130, 33572), (Start: 145 @33536 has 36 MA's), (Start: 148 @33530 has 548 MA's), (Start: 157 @33470 has 2 MA's), (164, 33425), (173, 33344), (203, 33185), (204, 33179), (234, 33014), (249, 32921), (251, 32915), (261, 32858), (263, 32849), (268, 32822), (277, 32771),

Gene: Natosaleda\_43 Start: 33529, Stop: 32765, Start Num: 148

Candidate Starts for Natosaleda\_43:

(82, 33685), (87, 33661), (111, 33613), (116, 33601), (130, 33571), (Start: 145 @33535 has 36 MA's), (Start: 148 @33529 has 548 MA's), (Start: 157 @33469 has 2 MA's), (164, 33424), (173, 33343), (203, 33184), (204, 33178), (234, 33013), (249, 32920), (251, 32914), (261, 32857), (263, 32848), (268, 32821), (277, 32770),

Gene: NearlyHeadless\_53 Start: 35764, Stop: 34997, Start Num: 148

Candidate Starts for NearlyHeadless\_53:

(Start: 148 @35764 has 548 MA's), (Start: 157 @35704 has 2 MA's), (159, 35695), (167, 35638), (186, 35509), (214, 35359), (229, 35266), (234, 35248), (244, 35179), (246, 35170), (249, 35152), (251, 35146), (262, 35086), (266, 35065),

Gene: Nebs\_53 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Nebs\_53:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Nebulosus\_59 Start: 36569, Stop: 35805, Start Num: 148

Candidate Starts for Nebulosus\_59:

(104, 36665), (106, 36659), (127, 36614), (Start: 148 @36569 has 548 MA's), (184, 36332), (206, 36215), (228, 36080), (234, 36056), (246, 35978), (249, 35960), (251, 35954), (262, 35894), (266, 35873),

Gene: Nedarya\_57 Start: 36267, Stop: 35500, Start Num: 148

Candidate Starts for Nedarya\_57:

(82, 36411), (92, 36384), (125, 36315), (Start: 148 @36267 has 548 MA's), (206, 35910), (228, 35775), (234, 35751), (246, 35673), (249, 35655), (251, 35649), (266, 35568),

Gene: Neeharika16\_56 Start: 36074, Stop: 35259, Start Num: 129

Candidate Starts for Neeharika16\_56:

(Start: 129 @36074 has 1 MA's), (Start: 148 @36029 has 548 MA's), (156, 35972), (167, 35903), (170, 35846), (173, 35843), (221, 35579), (232, 35516), (234, 35510), (249, 35414), (251, 35408), (269, 35312), (271, 35303),

Gene: Nemo27\_52 Start: 37111, Stop: 36344, Start Num: 117

Candidate Starts for Nemo27\_52:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: Nerujay\_55 Start: 38547, Stop: 37780, Start Num: 148

Candidate Starts for Nerujay\_55:

(50, 38814), (Start: 148 @38547 has 548 MA's), (152, 38529), (154, 38517), (167, 38421), (188, 38289), (200, 38220), (205, 38193), (219, 38109), (234, 38031), (237, 38004), (241, 37974), (242, 37971), (248, 37938), (249, 37935), (255, 37905),

Gene: Newrala\_57 Start: 36571, Stop: 35801, Start Num: 148

Candidate Starts for Newrala\_57:

(Start: 129 @36616 has 1 MA's), (Start: 148 @36571 has 548 MA's), (156, 36514), (167, 36445), (170, 36388), (173, 36385), (221, 36121), (232, 36058), (234, 36052), (249, 35956), (251, 35950), (269, 35854), (271, 35845),

Gene: NiceHouse\_79 Start: 58078, Stop: 58851, Start Num: 144

Candidate Starts for NiceHouse\_79:

(Start: 144 @58078 has 59 MA's), (Start: 151 @58099 has 9 MA's), (Start: 157 @58144 has 2 MA's), (162, 58165), (165, 58198), (183, 58321), (184, 58324), (190, 58366), (207, 58441), (213, 58480), (227, 58564), (239, 58636), (244, 58663), (248, 58687), (251, 58696), (254, 58711), (265, 58774), (273, 58825),

Gene: NicoleTera\_55 Start: 38021, Stop: 37251, Start Num: 148

Candidate Starts for NicoleTera\_55:

(Start: 148 @38021 has 548 MA's), (167, 37895), (173, 37835), (221, 37571), (232, 37508), (233, 37505), (234, 37502), (236, 37478), (244, 37433), (249, 37406), (251, 37400),

Gene: Noella\_54 Start: 37478, Stop: 36711, Start Num: 148

Candidate Starts for Noella\_54:

(79, 37532), (Start: 148 @37478 has 548 MA's), (167, 37352), (173, 37292), (206, 37121), (214, 37073), (234, 36962), (241, 36905), (246, 36884), (249, 36866), (251, 36860), (277, 36716),

Gene: Noelle\_52 Start: 37386, Stop: 36619, Start Num: 148

Candidate Starts for Noelle\_52:

(Start: 148 @37386 has 548 MA's), (Start: 151 @37371 has 9 MA's), (159, 37317), (167, 37260), (173, 37200), (234, 36870), (249, 36774), (251, 36768), (262, 36708),

Gene: NootNoot\_65 Start: 51276, Stop: 52037, Start Num: 144

Candidate Starts for NootNoot\_65:

(Start: 144 @51276 has 59 MA's), (150, 51288), (156, 51339), (164, 51387), (204, 51636), (224, 51759), (231, 51786), (235, 51816), (236, 51822), (248, 51882), (254, 51900),

Gene: Norbert\_53 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for Norbert\_53:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: NorthStar\_51 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for NorthStar\_51:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: NotAPhaseMom\_52 Start: 37101, Stop: 36349, Start Num: 151

Candidate Starts for NotAPhaseMom\_52:

(Start: 117 @37116 has 107 MA's), (Start: 151 @37101 has 9 MA's), (159, 37047), (164, 37011), (167, 36990), (232, 36606), (234, 36600), (249, 36504), (251, 36498),

Gene: NothingSpecial\_54 Start: 38242, Stop: 37472, Start Num: 148

Candidate Starts for NothingSpecial\_54:

(Start: 148 @38242 has 548 MA's), (152, 38224), (167, 38116), (170, 38059), (173, 38056), (206, 37882), (221, 37792), (232, 37729), (233, 37726), (234, 37723), (236, 37699), (244, 37654), (249, 37627), (251, 37621),

Gene: Nyxis\_52 Start: 37002, Stop: 36235, Start Num: 117

Candidate Starts for Nyxis\_52:

(Start: 117 @37002 has 107 MA's), (Start: 151 @36987 has 9 MA's), (159, 36933), (164, 36897), (167, 36876), (178, 36789), (197, 36681), (232, 36492), (234, 36486), (249, 36390), (251, 36384),

Gene: OKCentral2016\_52 Start: 36728, Stop: 35961, Start Num: 148

Candidate Starts for OKCentral2016\_52:

(79, 36782), (Start: 148 @36728 has 548 MA's), (164, 36623), (167, 36602), (173, 36542), (197, 36407), (210, 36344), (232, 36218), (234, 36212), (246, 36134), (249, 36116), (251, 36110),

Gene: OKaNui\_52 Start: 37162, Stop: 36395, Start Num: 117

Candidate Starts for OKaNui\_52:

(Start: 117 @37162 has 107 MA's), (Start: 151 @37147 has 9 MA's), (159, 37093), (164, 37057), (167, 37036), (197, 36841), (232, 36652), (234, 36646), (249, 36550), (251, 36544),

Gene: Obama12\_53 Start: 37517, Stop: 36765, Start Num: 151

Candidate Starts for Obama12\_53:

(Start: 117 @37532 has 107 MA's), (Start: 151 @37517 has 9 MA's), (159, 37463), (164, 37427), (167, 37406), (197, 37211), (232, 37022), (234, 37016), (249, 36920), (251, 36914),

Gene: Odin\_54 Start: 36574, Stop: 35807, Start Num: 148

Candidate Starts for Odin\_54:

(95, 36688), (Start: 148 @36574 has 548 MA's), (164, 36469), (167, 36448), (186, 36319), (194, 36274), (206, 36214), (210, 36187), (222, 36118), (227, 36082), (228, 36079), (232, 36061), (243, 35992), (246, 35980), (249, 35962), (251, 35956),

Gene: Ohfah\_53 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Ohfah\_53:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Ohno789\_53 Start: 38446, Stop: 37679, Start Num: 148

Candidate Starts for Ohno789\_53:

(Start: 148 @38446 has 548 MA's), (152, 38428), (154, 38416), (167, 38320), (188, 38188), (200, 38119), (205, 38092), (210, 38062), (219, 38008), (234, 37930), (237, 37903), (241, 37873), (242, 37870), (248, 37837), (249, 37834), (255, 37804),

Gene: OlanP\_57 Start: 37765, Stop: 36998, Start Num: 148

Candidate Starts for OlanP\_57:

(71, 37852), (Start: 148 @37765 has 548 MA's), (164, 37660), (167, 37639), (173, 37579), (216, 37345), (230, 37264), (232, 37255), (234, 37249), (241, 37192), (246, 37171), (249, 37153), (251, 37147), (262, 37087),

Gene: Olicious\_69 Start: 35377, Stop: 36153, Start Num: 139

Candidate Starts for Olicious\_69:

(Start: 139 @35377 has 8 MA's), (142, 35383), (Start: 147 @35389 has 12 MA's), (159, 35461), (161, 35470), (179, 35608), (194, 35692), (208, 35770), (217, 35818), (233, 35908), (237, 35938), (241, 35968), (246, 35986), (248, 36001), (249, 36004), (254, 36028), (257, 36043), (258, 36052), (259, 36055), (266, 36091), (269, 36106), (270, 36112), (271, 36115),

Gene: Ollie\_58 Start: 37573, Stop: 36806, Start Num: 148

Candidate Starts for Ollie\_58:

(Start: 148 @37573 has 548 MA's), (164, 37468), (167, 37447), (173, 37387), (216, 37153), (230, 37072), (232, 37063), (234, 37057), (241, 37000), (246, 36979), (249, 36961), (251, 36955),

Gene: Orange\_55 Start: 36672, Stop: 35905, Start Num: 148

Candidate Starts for Orange\_55:

(137, 36684), (Start: 148 @36672 has 548 MA's), (159, 36603), (167, 36546), (186, 36417), (190, 36390), (192, 36381), (210, 36285), (227, 36180), (243, 36090), (246, 36078), (249, 36060), (251, 36054), (261, 35997), (266, 35973),

Gene: P28Green\_59 Start: 37705, Stop: 36938, Start Num: 148

Candidate Starts for P28Green\_59:

(Start: 148 @37705 has 548 MA's), (164, 37600), (167, 37579), (173, 37519), (216, 37285), (230, 37204), (232, 37195), (234, 37189), (241, 37132), (246, 37111), (249, 37093), (251, 37087),

Gene: PGHhamlin\_60 Start: 37694, Stop: 36927, Start Num: 148

Candidate Starts for PGHhamlin\_60:

(Start: 148 @37694 has 548 MA's), (164, 37589), (167, 37568), (173, 37508), (230, 37193), (232, 37184), (234, 37178), (241, 37121), (246, 37100), (249, 37082), (251, 37076),

Gene: PP\_54 Start: 40701, Stop: 39934, Start Num: 148

Candidate Starts for PP\_54:

(35, 40941), (53, 40866), (77, 40785), (Start: 148 @40701 has 548 MA's), (167, 40575), (233, 40188), (234, 40185), (249, 40089), (251, 40083), (261, 40026), (262, 40023), (269, 39987),

Gene: PSullivan\_51 Start: 36728, Stop: 35961, Start Num: 148

Candidate Starts for PSullivan\_51:

(Start: 148 @36728 has 548 MA's), (155, 36692), (167, 36602), (188, 36470), (200, 36401), (205, 36374), (219, 36290), (232, 36215), (234, 36209), (249, 36116), (259, 36065), (263, 36044),

Gene: PacManQ\_70 Start: 52374, Stop: 53129, Start Num: 144

Candidate Starts for PacManQ\_70:

(Start: 144 @52374 has 59 MA's), (150, 52383), (156, 52434), (161, 52455), (162, 52458), (192, 52671), (202, 52716), (207, 52743), (220, 52824), (231, 52881), (248, 52977),

Gene: PackMan\_55 Start: 37681, Stop: 36911, Start Num: 148

Candidate Starts for PackMan\_55:

(Start: 148 @37681 has 548 MA's), (159, 37612), (167, 37555), (188, 37420), (198, 37357), (206, 37321), (210, 37294), (222, 37225), (228, 37186), (229, 37180), (233, 37165), (234, 37162), (246,

37084), (249, 37066), (251, 37060), (272, 36940),

Gene: PainterBoy\_57 Start: 37565, Stop: 36795, Start Num: 148

Candidate Starts for PainterBoy\_57:

(Start: 148 @37565 has 548 MA's), (167, 37439), (183, 37328), (192, 37274), (210, 37178), (228, 37070), (232, 37052), (233, 37049), (234, 37046), (235, 37028), (243, 36980), (246, 36968), (249, 36950), (253, 36938), (256, 36914), (269, 36848),

Gene: Palestino\_51 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Palestino\_51:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Panamaxus\_52 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for Panamaxus\_52:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: Papez\_54 Start: 39858, Stop: 39091, Start Num: 148

Candidate Starts for Papez\_54:

(Start: 148 @39858 has 548 MA's), (155, 39822), (167, 39732), (188, 39600), (200, 39531), (205, 39504), (219, 39420), (232, 39345), (234, 39339), (249, 39246), (259, 39195), (263, 39174),

Gene: Paphu\_49 Start: 36987, Stop: 36220, Start Num: 148

Candidate Starts for Paphu\_49:

(16, 37425), (30, 37338), (36, 37311), (40, 37296), (Start: 148 @36987 has 548 MA's), (152, 36969), (154, 36957), (167, 36861), (188, 36729), (200, 36660), (205, 36633), (210, 36603), (219, 36549), (234, 36471), (237, 36444), (241, 36414), (242, 36411), (248, 36378), (249, 36375), (255, 36345),

Gene: Paradiddles\_65 Start: 51540, Stop: 52301, Start Num: 144

Candidate Starts for Paradiddles\_65:

(Start: 144 @51540 has 59 MA's), (150, 51552), (156, 51603), (164, 51651), (204, 51900), (224, 52023), (231, 52050), (235, 52080), (236, 52086), (248, 52146), (254, 52164),

Gene: Pari\_53 Start: 37393, Stop: 36626, Start Num: 148

Candidate Starts for Pari\_53:

(Start: 148 @37393 has 548 MA's), (155, 37357), (Start: 157 @37333 has 2 MA's), (164, 37288), (173, 37207), (181, 37171), (188, 37132), (204, 37042), (208, 37015), (219, 36955), (221, 36946), (232, 36883), (244, 36808), (246, 36799), (249, 36781), (251, 36775), (259, 36730), (261, 36718),

Gene: Parliament\_51 Start: 37906, Stop: 37139, Start Num: 148

Candidate Starts for Parliament\_51:

(Start: 148 @37906 has 548 MA's), (155, 37870), (Start: 157 @37846 has 2 MA's), (164, 37801), (173, 37720), (181, 37684), (188, 37645), (204, 37555), (208, 37528), (219, 37468), (221, 37459), (232, 37396), (246, 37312), (249, 37294), (251, 37288), (259, 37243), (261, 37231),

Gene: Partridge\_43 Start: 33694, Stop: 32990, Start Num: 157

Candidate Starts for Partridge\_43:

(64, 33979), (66, 33973), (78, 33925), (81, 33919), (84, 33898), (Start: 140 @33766 has 1 MA's), (Start: 148 @33754 has 548 MA's), (Start: 157 @33694 has 2 MA's), (173, 33568), (203, 33409), (204, 33403), (234, 33238), (243, 33175), (249, 33145), (251, 33139), (261, 33082), (263, 33073), (268, 33046), (277, 32995),

Gene: Patelgo\_49 Start: 43489, Stop: 44304, Start Num: 149

Candidate Starts for Patelgo\_49:

(Start: 140 @43474 has 1 MA's), (Start: 149 @43489 has 23 MA's), (154, 43513), (162, 43564), (172, 43723), (186, 43810), (194, 43855), (204, 43900), (239, 44104), (248, 44143), (254, 44167), (273, 44278), (276, 44290),

Gene: Pawn\_58 Start: 37596, Stop: 36829, Start Num: 148

Candidate Starts for Pawn\_58:

(Start: 147 @37599 has 12 MA's), (Start: 148 @37596 has 548 MA's), (164, 37491), (167, 37470), (173, 37410), (211, 37209), (216, 37176), (230, 37095), (232, 37086), (234, 37080), (241, 37023), (246, 37002), (249, 36984), (251, 36978), (262, 36918),

Gene: PeaceMeal1\_51 Start: 36253, Stop: 35486, Start Num: 148

Candidate Starts for PeaceMeal1\_51:

(79, 36307), (Start: 148 @36253 has 548 MA's), (164, 36148), (167, 36127), (173, 36067), (184, 36013), (197, 35932), (234, 35737), (246, 35659), (249, 35641), (251, 35635),

Gene: Peaches\_52 Start: 37111, Stop: 36344, Start Num: 117

Candidate Starts for Peaches\_52:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (197, 36790), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: Peebs\_68 Start: 52728, Stop: 53483, Start Num: 144

Candidate Starts for Peebs\_68:

(Start: 144 @52728 has 59 MA's), (150, 52737), (156, 52788), (161, 52809), (162, 52812), (192, 53025), (202, 53070), (207, 53097), (220, 53178), (231, 53235), (248, 53331),

Gene: Pelly\_51 Start: 37825, Stop: 37058, Start Num: 148

Candidate Starts for Pelly\_51:

(Start: 148 @37825 has 548 MA's), (152, 37807), (154, 37795), (167, 37699), (188, 37567), (200, 37498), (205, 37471), (219, 37387), (234, 37309), (237, 37282), (241, 37252), (242, 37249), (248, 37216), (249, 37213), (255, 37183),

Gene: Pembroke\_58 Start: 37703, Stop: 36936, Start Num: 148

Candidate Starts for Pembroke\_58:

(Start: 148 @37703 has 548 MA's), (164, 37598), (167, 37577), (173, 37517), (230, 37202), (232, 37193), (234, 37187), (241, 37130), (246, 37109), (249, 37091), (251, 37085),

Gene: Penny1\_59 Start: 37706, Stop: 36939, Start Num: 148

Candidate Starts for Penny1\_59:

(Start: 148 @37706 has 548 MA's), (164, 37601), (167, 37580), (173, 37520), (216, 37286), (230, 37205), (232, 37196), (234, 37190), (241, 37133), (246, 37112), (249, 37094), (251, 37088),

Gene: Pepperwood\_69 Start: 52861, Stop: 53616, Start Num: 144

Candidate Starts for Pepperwood\_69:

(Start: 144 @52861 has 59 MA's), (150, 52870), (156, 52921), (161, 52942), (162, 52945), (192, 53158), (202, 53203), (207, 53230), (220, 53311), (231, 53368), (248, 53464),

Gene: Percastrophe\_69 Start: 35309, Stop: 36085, Start Num: 139

Candidate Starts for Percastrophe\_69:

(Start: 139 @35309 has 8 MA's), (142, 35315), (Start: 147 @35321 has 12 MA's), (159, 35393), (161, 35402), (179, 35540), (194, 35624), (208, 35702), (217, 35750), (233, 35840), (237, 35870), (241, 35900), (246, 35918), (248, 35933), (249, 35936), (254, 35960), (257, 35975), (258, 35984), (259,

(35987), (266, 36023), (269, 36038), (270, 36044), (271, 36047),

Gene: Peregrin\_88 Start: 53776, Stop: 54570, Start Num: 144

Candidate Starts for Peregrin\_88:

(Start: 144 @53776 has 59 MA's), (Start: 151 @53797 has 9 MA's), (162, 53863), (174, 54007), (183, 54055), (191, 54106), (196, 54130), (254, 54433), (270, 54520), (273, 54544),

Gene: Perplexer\_51 Start: 37058, Stop: 36291, Start Num: 148

Candidate Starts for Perplexer\_51:

(Start: 148 @37058 has 548 MA's), (Start: 151 @37043 has 9 MA's), (159, 36989), (167, 36932), (173, 36872), (234, 36542), (249, 36446), (251, 36440), (262, 36380),

Gene: Persimmon\_65 Start: 51209, Stop: 51970, Start Num: 144

Candidate Starts for Persimmon\_65:

(Start: 144 @51209 has 59 MA's), (150, 51221), (156, 51272), (164, 51320), (204, 51569), (224, 51692), (231, 51719), (235, 51749), (236, 51755), (248, 51815), (254, 51833),

Gene: PeterPeter\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for PeterPeter\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Petersenfast\_54 Start: 36671, Stop: 35904, Start Num: 148

Candidate Starts for Petersenfast\_54:

(137, 36683), (Start: 148 @36671 has 548 MA's), (159, 36602), (167, 36545), (186, 36416), (190, 36389), (192, 36380), (210, 36284), (227, 36179), (243, 36089), (246, 36077), (249, 36059), (251, 36053), (261, 35996), (266, 35972),

Gene: Peterson\_56 Start: 40094, Stop: 39327, Start Num: 148

Candidate Starts for Peterson\_56:

(53, 40355), (59, 40337), (61, 40334), (Start: 148 @40094 has 548 MA's), (152, 40076), (154, 40064), (167, 39968), (188, 39836), (200, 39767), (205, 39740), (219, 39656), (234, 39578), (237, 39551), (241, 39521), (242, 39518), (248, 39485), (249, 39482), (255, 39452),

Gene: PetiteSangsue\_51 Start: 37061, Stop: 36294, Start Num: 148

Candidate Starts for PetiteSangsue\_51:

(Start: 148 @37061 has 548 MA's), (Start: 151 @37046 has 9 MA's), (159, 36992), (167, 36935), (173, 36875), (234, 36545), (249, 36449), (251, 36443), (262, 36383),

Gene: Petp2012\_52 Start: 37725, Stop: 36958, Start Num: 148

Candidate Starts for Petp2012\_52:

(24, 38100), (56, 37974), (63, 37956), (Start: 148 @37725 has 548 MA's), (155, 37689), (167, 37599), (188, 37467), (200, 37398), (205, 37371), (219, 37287), (232, 37212), (234, 37206), (249, 37113), (259, 37062), (263, 37041),

Gene: Petruchio\_51 Start: 37462, Stop: 36695, Start Num: 148

Candidate Starts for Petruchio\_51:

(Start: 148 @37462 has 548 MA's), (155, 37426), (Start: 157 @37402 has 2 MA's), (164, 37357), (173, 37276), (181, 37240), (188, 37201), (204, 37111), (208, 37084), (219, 37024), (221, 37015), (232, 36952), (241, 36889), (246, 36868), (249, 36850), (251, 36844), (259, 36799), (261, 36787),

Gene: PetterN\_53 Start: 36439, Stop: 35669, Start Num: 148

Candidate Starts for PetterN\_53:

(Start: 148 @36439 has 548 MA's), (164, 36334), (167, 36313), (173, 36253), (197, 36118), (206, 36082), (234, 35923), (249, 35827), (251, 35821),

Gene: Ph8s\_57 Start: 36928, Stop: 36161, Start Num: 148

Candidate Starts for Ph8s\_57:

(Start: 148 @36928 has 548 MA's), (Start: 157 @36868 has 2 MA's), (167, 36802), (197, 36607), (206, 36568), (210, 36541), (227, 36436), (228, 36433), (232, 36415), (243, 36346), (244, 36343), (246, 36334), (247, 36328), (249, 36316), (251, 36310), (262, 36250),

Gene: Phacado\_52 Start: 37111, Stop: 36344, Start Num: 117

Candidate Starts for Phacado\_52:

(Start: 117 @37111 has 107 MA's), (Start: 151 @37096 has 9 MA's), (159, 37042), (164, 37006), (167, 36985), (232, 36601), (234, 36595), (249, 36499), (251, 36493),

Gene: Phaded\_57 Start: 38927, Stop: 38157, Start Num: 148

Candidate Starts for Phaded\_57:

(23, 39155), (Start: 148 @38927 has 548 MA's), (167, 38801), (173, 38741), (184, 38687), (221, 38477), (233, 38411), (234, 38408), (236, 38384), (244, 38339), (249, 38312), (251, 38306),

Gene: Phaeder\_56 Start: 37681, Stop: 36911, Start Num: 148

Candidate Starts for Phaeder\_56:

(Start: 148 @37681 has 548 MA's), (159, 37612), (167, 37555), (188, 37420), (198, 37357), (206, 37321), (210, 37294), (222, 37225), (228, 37186), (229, 37180), (233, 37165), (234, 37162), (246, 37084), (249, 37066), (251, 37060), (272, 36940),

Gene: PhailMary\_43 Start: 33925, Stop: 33155, Start Num: 145

Candidate Starts for PhailMary\_43:

(82, 34075), (87, 34051), (96, 34030), (111, 34003), (130, 33961), (Start: 145 @33925 has 36 MA's), (Start: 148 @33919 has 548 MA's), (Start: 157 @33859 has 2 MA's), (173, 33733), (203, 33574), (204, 33568), (234, 33403), (249, 33310), (251, 33304), (261, 33247), (263, 33238), (268, 33211), (277, 33160),

Gene: Phantastic\_56 Start: 37150, Stop: 36383, Start Num: 148

Candidate Starts for Phantastic\_56:

(79, 37207), (Start: 148 @37150 has 548 MA's), (164, 37045), (167, 37024), (173, 36964), (214, 36745), (233, 36637), (234, 36634), (241, 36577), (249, 36538), (277, 36388),

Gene: Pharaoh\_51 Start: 37493, Stop: 36726, Start Num: 148

Candidate Starts for Pharaoh\_51:

(Start: 148 @37493 has 548 MA's), (164, 37388), (167, 37367), (186, 37238), (198, 37169), (206, 37133), (227, 37001), (228, 36998), (232, 36980), (243, 36911), (246, 36899), (249, 36881), (251, 36875),

Gene: Phelipe\_53 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Phelipe\_53:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: PherrisBueller\_51 Start: 36726, Stop: 35959, Start Num: 148

Candidate Starts for PherrisBueller\_51:

(Start: 148 @36726 has 548 MA's), (152, 36708), (154, 36696), (167, 36600), (188, 36468), (200, 36399), (205, 36372), (219, 36288), (234, 36210), (237, 36183), (241, 36153), (242, 36150), (248, 36117), (249, 36114), (255, 36084),

Gene: Phighter1804\_52 Start: 37158, Stop: 36406, Start Num: 151

Candidate Starts for Phighter1804\_52:

(Start: 117 @37173 has 107 MA's), (Start: 151 @37158 has 9 MA's), (159, 37104), (164, 37068), (167, 37047), (197, 36852), (232, 36663), (234, 36657), (249, 36561), (251, 36555),

Gene: Phillis\_53 Start: 35966, Stop: 35199, Start Num: 148

Candidate Starts for Phillis\_53:

(89, 36095), (Start: 148 @35966 has 548 MA's), (Start: 157 @35906 has 2 MA's), (159, 35897), (167, 35840), (214, 35561), (229, 35468), (234, 35450), (244, 35381), (246, 35372), (249, 35354), (251, 35348), (262, 35288), (266, 35267),

Gene: PhishRPhriends\_56 Start: 36773, Stop: 36006, Start Num: 148

Candidate Starts for PhishRPhriends\_56:

(Start: 147 @36776 has 12 MA's), (Start: 148 @36773 has 548 MA's), (164, 36668), (167, 36647), (173, 36587), (216, 36353), (230, 36272), (232, 36263), (234, 36257), (241, 36200), (246, 36179), (249, 36161), (251, 36155), (262, 36095),

Gene: Phlei\_45 Start: 37174, Stop: 36404, Start Num: 148

Candidate Starts for Phlei\_45:

(115, 37243), (120, 37231), (Start: 148 @37174 has 548 MA's), (155, 37138), (159, 37105), (167, 37048), (186, 36919), (187, 36916), (193, 36880), (197, 36853), (210, 36787), (228, 36679), (229, 36673), (233, 36658), (234, 36655), (236, 36631), (246, 36577), (249, 36559), (251, 36553), (268, 36460),

Gene: Phlorence\_46 Start: 35944, Stop: 35174, Start Num: 145

Candidate Starts for Phlorence\_46:

(Start: 145 @35944 has 36 MA's), (164, 35839), (167, 35818), (173, 35758), (193, 35650), (202, 35608), (216, 35524), (234, 35428), (249, 35332), (251, 35326),

Gene: Phoebe\_59 Start: 37695, Stop: 36928, Start Num: 148

Candidate Starts for Phoebe\_59:

(Start: 148 @37695 has 548 MA's), (164, 37590), (167, 37569), (173, 37509), (216, 37275), (230, 37194), (232, 37185), (234, 37179), (241, 37122), (246, 37101), (249, 37083), (251, 37077),

Gene: Phonnegut\_56 Start: 37778, Stop: 37008, Start Num: 148

Candidate Starts for Phonnegut\_56:

(Start: 148 @37778 has 548 MA's), (159, 37709), (167, 37652), (198, 37454), (206, 37418), (210, 37391), (222, 37322), (228, 37283), (229, 37277), (233, 37262), (234, 37259), (246, 37181), (249, 37163), (251, 37157), (272, 37037),

Gene: Phontbonne\_52 Start: 37003, Stop: 36236, Start Num: 117

Candidate Starts for Phontbonne\_52:

(Start: 117 @37003 has 107 MA's), (Start: 151 @36988 has 9 MA's), (159, 36934), (164, 36898), (167, 36877), (197, 36682), (232, 36493), (234, 36487), (249, 36391), (251, 36385), (262, 36325),

Gene: Phoxy\_58 Start: 37727, Stop: 36960, Start Num: 148

Candidate Starts for Phoxy\_58:

(Start: 148 @37727 has 548 MA's), (164, 37622), (167, 37601), (173, 37541), (216, 37307), (230, 37226), (232, 37217), (234, 37211), (241, 37154), (246, 37133), (249, 37115), (251, 37109),

Gene: Phrankenstein\_44 Start: 33543, Stop: 32779, Start Num: 148

Candidate Starts for Phrankenstein\_44:

(82, 33699), (87, 33675), (111, 33627), (116, 33615), (130, 33585), (Start: 145 @33549 has 36 MA's), (Start: 148 @33543 has 548 MA's), (Start: 157 @33483 has 2 MA's), (173, 33357), (203, 33198), (204, 33192), (234, 33027), (247, 32946), (249, 32934), (251, 32928), (261, 32871), (263, 32862), (268, 32835), (277, 32784),

Gene: Phranny\_59 Start: 37578, Stop: 36811, Start Num: 148

Candidate Starts for Phranny\_59:

(Start: 147 @37581 has 12 MA's), (Start: 148 @37578 has 548 MA's), (164, 37473), (167, 37452), (173, 37392), (216, 37158), (230, 37077), (232, 37068), (234, 37062), (241, 37005), (246, 36984), (249, 36966), (251, 36960), (262, 36900),

Gene: Phredrick\_48 Start: 41338, Stop: 42153, Start Num: 149

Candidate Starts for Phredrick\_48:

(Start: 140 @41323 has 1 MA's), (Start: 149 @41338 has 23 MA's), (162, 41413), (164, 41437), (186, 41659), (189, 41671), (194, 41704), (199, 41728), (204, 41749), (239, 41953), (254, 42016),

Gene: PickleBack\_48 Start: 36191, Stop: 35421, Start Num: 145

Candidate Starts for PickleBack\_48:

(Start: 145 @36191 has 36 MA's), (164, 36086), (167, 36065), (173, 36005), (193, 35897), (202, 35855), (216, 35771), (234, 35675), (249, 35579), (251, 35573),

Gene: PinkPlastic\_52 Start: 37502, Stop: 36735, Start Num: 148

Candidate Starts for PinkPlastic\_52:

(Start: 148 @37502 has 548 MA's), (155, 37466), (167, 37376), (188, 37244), (200, 37175), (205, 37148), (219, 37064), (234, 36983), (249, 36890), (259, 36839), (263, 36818),

Gene: PinkiePie\_67 Start: 52362, Stop: 53123, Start Num: 144

Candidate Starts for PinkiePie\_67:

(Start: 144 @52362 has 59 MA's), (150, 52374), (156, 52425), (204, 52722), (224, 52845), (231, 52872), (235, 52902), (236, 52908), (248, 52968), (254, 52986), (276, 53109),

Gene: Pioneer\_56 Start: 37778, Stop: 37008, Start Num: 148

Candidate Starts for Pioneer\_56:

(Start: 148 @37778 has 548 MA's), (159, 37709), (167, 37652), (198, 37454), (206, 37418), (210, 37391), (222, 37322), (228, 37283), (229, 37277), (233, 37262), (234, 37259), (246, 37181), (249, 37163), (251, 37157), (272, 37037),

Gene: Pipcraft\_50 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Pipcraft\_50:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Pippin\_53 Start: 37824, Stop: 37057, Start Num: 148

Candidate Starts for Pippin\_53:

(Start: 148 @37824 has 548 MA's), (152, 37806), (154, 37794), (167, 37698), (188, 37566), (200, 37497), (205, 37470), (210, 37440), (219, 37386), (234, 37308), (237, 37281), (241, 37251), (242, 37248), (248, 37215), (249, 37212), (255, 37182),

Gene: Piro94\_56 Start: 38078, Stop: 37308, Start Num: 148

Candidate Starts for Piro94\_56:

(23, 38300), (Start: 148 @38078 has 548 MA's), (167, 37952), (170, 37895), (173, 37892), (174, 37889), (221, 37628), (232, 37565), (233, 37562), (234, 37559), (236, 37535), (249, 37463), (251, 37457),

Gene: Pistachio\_57 Start: 37068, Stop: 36301, Start Num: 148

Candidate Starts for Pistachio\_57:

(79, 37125), (Start: 148 @37068 has 548 MA's), (164, 36963), (167, 36942), (173, 36882), (214, 36663), (234, 36552), (241, 36495), (246, 36474), (249, 36456),

Gene: Pita2\_54 Start: 38225, Stop: 37458, Start Num: 148

Candidate Starts for Pita2\_54:

(Start: 148 @38225 has 548 MA's), (155, 38189), (167, 38099), (188, 37967), (200, 37898), (205, 37871), (219, 37787), (232, 37712), (234, 37706), (249, 37613), (259, 37562), (263, 37541),

Gene: Pmask\_57 Start: 36572, Stop: 35802, Start Num: 148

Candidate Starts for Pmask\_57:

(Start: 129 @36617 has 1 MA's), (Start: 148 @36572 has 548 MA's), (156, 36515), (164, 36467), (167, 36446), (170, 36389), (173, 36386), (221, 36122), (232, 36059), (234, 36053), (249, 35957), (251, 35951), (269, 35855), (271, 35846),

Gene: Pocahontas\_54 Start: 37474, Stop: 36707, Start Num: 148

Candidate Starts for Pocahontas\_54:

(79, 37528), (Start: 148 @37474 has 548 MA's), (167, 37348), (173, 37288), (206, 37117), (214, 37069), (234, 36958), (241, 36901), (246, 36880), (249, 36862), (251, 36856), (277, 36712),

Gene: Polymorphads\_53 Start: 37105, Stop: 36338, Start Num: 117

Candidate Starts for Polymorphads\_53:

(Start: 117 @37105 has 107 MA's), (Start: 151 @37090 has 9 MA's), (159, 37036), (164, 37000), (167, 36979), (178, 36892), (197, 36784), (232, 36595), (234, 36589), (249, 36493), (251, 36487),

Gene: Pomar16\_58 Start: 37592, Stop: 36825, Start Num: 148

Candidate Starts for Pomar16\_58:

(Start: 148 @37592 has 548 MA's), (159, 37523), (167, 37466), (184, 37352), (206, 37232), (208, 37211), (210, 37205), (214, 37184), (222, 37136), (227, 37100), (232, 37079), (243, 37010), (246, 36998), (249, 36980), (251, 36974), (262, 36914),

Gene: Poompha\_52 Start: 36251, Stop: 35484, Start Num: 148

Candidate Starts for Poompha\_52:

(79, 36305), (Start: 148 @36251 has 548 MA's), (164, 36146), (167, 36125), (173, 36065), (184, 36011), (197, 35930), (234, 35735), (246, 35657), (249, 35639), (251, 35633),

Gene: Popcicle\_54 Start: 37474, Stop: 36707, Start Num: 148

Candidate Starts for Popcicle\_54:

(79, 37528), (Start: 148 @37474 has 548 MA's), (167, 37348), (173, 37288), (206, 37117), (214, 37069), (234, 36958), (241, 36901), (246, 36880), (249, 36862), (251, 36856), (277, 36712),

Gene: PotatoSplit\_60 Start: 37706, Stop: 36939, Start Num: 148

Candidate Starts for PotatoSplit\_60:

(Start: 148 @37706 has 548 MA's), (164, 37601), (167, 37580), (173, 37520), (216, 37286), (230, 37205), (232, 37196), (234, 37190), (241, 37133), (246, 37112), (249, 37094), (251, 37088),

Gene: Power\_55 Start: 37717, Stop: 36947, Start Num: 148

Candidate Starts for Power\_55:

(29, 37885), (Start: 148 @37717 has 548 MA's), (Start: 157 @37657 has 2 MA's), (167, 37591), (170, 37534), (173, 37531), (206, 37357), (221, 37267), (236, 37174), (246, 37120), (249, 37102), (251, 37096),

Gene: Priamo\_59 Start: 36331, Stop: 35561, Start Num: 148

Candidate Starts for Priamo\_59:

(Start: 148 @36331 has 548 MA's), (Start: 157 @36271 has 2 MA's), (160, 36259), (164, 36226), (167, 36205), (170, 36148), (173, 36145), (221, 35881), (232, 35818), (234, 35812), (249, 35716), (251, 35710), (269, 35614), (271, 35605),

Gene: Priya\_56 Start: 37748, Stop: 36978, Start Num: 148

Candidate Starts for Priya\_56:

(Start: 148 @37748 has 548 MA's), (159, 37679), (167, 37622), (188, 37487), (198, 37424), (206, 37388), (210, 37361), (222, 37292), (228, 37253), (229, 37247), (233, 37232), (234, 37229), (246, 37151), (249, 37133), (251, 37127), (272, 37007),

Gene: Pukovnik\_55 Start: 38585, Stop: 37815, Start Num: 148

Candidate Starts for Pukovnik\_55:

(23, 38807), (Start: 148 @38585 has 548 MA's), (167, 38459), (170, 38402), (173, 38399), (184, 38345), (210, 38198), (221, 38135), (232, 38072), (233, 38069), (234, 38066), (249, 37970), (251, 37964),

Gene: Pumbaa\_52 Start: 37057, Stop: 36290, Start Num: 117

Candidate Starts for Pumbaa\_52:

(Start: 117 @37057 has 107 MA's), (Start: 151 @37042 has 9 MA's), (159, 36988), (164, 36952), (167, 36931), (197, 36736), (232, 36547), (234, 36541), (249, 36445), (251, 36439),

Gene: PumpkinSpice\_70 Start: 52317, Stop: 53078, Start Num: 144

Candidate Starts for PumpkinSpice\_70:

(133, 52287), (134, 52290), (Start: 144 @52317 has 59 MA's), (150, 52329), (156, 52380), (Start: 157 @52383 has 2 MA's), (161, 52401), (192, 52617), (209, 52707), (224, 52800), (235, 52857), (248, 52923), (254, 52941),

Gene: Puppy\_57 Start: 37140, Stop: 36373, Start Num: 148

Candidate Starts for Puppy\_57:

(79, 37197), (Start: 148 @37140 has 548 MA's), (164, 37035), (167, 37014), (173, 36954), (214, 36735), (234, 36624), (241, 36567), (246, 36546), (249, 36528),

Gene: PurpleHaze\_58 Start: 37591, Stop: 36824, Start Num: 148

Candidate Starts for PurpleHaze\_58:

(Start: 147 @37594 has 12 MA's), (Start: 148 @37591 has 548 MA's), (164, 37486), (167, 37465), (173, 37405), (216, 37171), (230, 37090), (232, 37081), (234, 37075), (241, 37018), (246, 36997), (249, 36979), (251, 36973), (262, 36913),

Gene: QTRlifeCrisis\_55 Start: 37927, Stop: 37160, Start Num: 148

Candidate Starts for QTRlifeCrisis\_55:

(50, 38194), (Start: 148 @37927 has 548 MA's), (155, 37891), (Start: 157 @37867 has 2 MA's), (164, 37822), (173, 37741), (181, 37705), (188, 37666), (204, 37576), (208, 37549), (219, 37489), (221, 37480), (232, 37417), (246, 37333), (249, 37315), (251, 37309), (259, 37264), (261, 37252),

Gene: Qobbit\_56 Start: 37710, Stop: 36940, Start Num: 148

Candidate Starts for Qobbit\_56:

(Start: 148 @37710 has 548 MA's), (159, 37641), (167, 37584), (188, 37449), (198, 37386), (206, 37350), (210, 37323), (222, 37254), (228, 37215), (229, 37209), (233, 37194), (234, 37191), (246, 37113), (249, 37095), (251, 37089), (272, 36969),

Gene: Quaran19\_71 Start: 52308, Stop: 53069, Start Num: 144

Candidate Starts for Quaran19\_71:

(133, 52278), (134, 52281), (Start: 144 @52308 has 59 MA's), (150, 52320), (156, 52371), (Start: 157 @52374 has 2 MA's), (161, 52392), (192, 52608), (209, 52698), (224, 52791), (235, 52848), (248, 52914), (254, 52932),

Gene: QueenB2\_55 Start: 37695, Stop: 36925, Start Num: 148

Candidate Starts for QueenB2\_55:

(Start: 148 @37695 has 548 MA's), (Start: 157 @37635 has 2 MA's), (167, 37569), (170, 37512), (173, 37509), (221, 37245), (233, 37179), (234, 37176), (236, 37152), (249, 37080), (251, 37074),

Gene: QueenBeesly\_56 Start: 37664, Stop: 36894, Start Num: 148

Candidate Starts for QueenBeesly\_56:

(29, 37832), (Start: 148 @37664 has 548 MA's), (Start: 157 @37604 has 2 MA's), (167, 37538), (170, 37481), (173, 37478), (206, 37304), (221, 37214), (236, 37121), (246, 37067), (249, 37049), (251, 37043),

Gene: QuinnKiro\_53 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for QuinnKiro\_53:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: RER2\_37 Start: 30469, Stop: 29705, Start Num: 148

Candidate Starts for RER2\_37:

(82, 30625), (87, 30601), (111, 30553), (116, 30541), (130, 30511), (Start: 145 @30475 has 36 MA's), (Start: 148 @30469 has 548 MA's), (Start: 157 @30409 has 2 MA's), (173, 30283), (203, 30124), (204, 30118), (234, 29953), (247, 29872), (249, 29860), (251, 29854), (261, 29797), (263, 29788), (268, 29761), (277, 29710),

Gene: RGL3\_38 Start: 31113, Stop: 30349, Start Num: 148

Candidate Starts for RGL3\_38:

(108, 31200), (141, 31125), (143, 31122), (Start: 145 @31119 has 36 MA's), (Start: 148 @31113 has 548 MA's), (152, 31095), (173, 30927), (193, 30819), (203, 30768), (204, 30762), (216, 30693), (223, 30642), (232, 30603), (234, 30597), (247, 30516), (249, 30504), (251, 30498), (261, 30441), (263, 30432), (269, 30402), (277, 30354),

Gene: Rachaly\_55 Start: 38053, Stop: 37283, Start Num: 148

Candidate Starts for Rachaly\_55:

(Start: 148 @38053 has 548 MA's), (167, 37927), (170, 37870), (184, 37813), (188, 37792), (210, 37666), (221, 37603), (232, 37540), (236, 37510), (249, 37438), (251, 37432), (261, 37375),

Gene: Rahalelujah\_56 Start: 37274, Stop: 36504, Start Num: 148

Candidate Starts for Rahalelujah\_56:

(108, 37355), (133, 37307), (Start: 148 @37274 has 548 MA's), (159, 37205), (167, 37148), (210, 36887), (228, 36779), (229, 36773), (233, 36758), (234, 36755), (246, 36677), (249, 36659), (251, 36653), (272, 36533),

Gene: Rasputin\_44 Start: 33567, Stop: 32803, Start Num: 148

Candidate Starts for Rasputin\_44:

(82, 33723), (87, 33699), (111, 33651), (116, 33639), (130, 33609), (Start: 145 @33573 has 36 MA's), (Start: 148 @33567 has 548 MA's), (Start: 157 @33507 has 2 MA's), (173, 33381), (203, 33222), (204, 33216), (234, 33051), (247, 32970), (249, 32958), (251, 32952), (261, 32895), (263, 32886), (268, 32859), (277, 32808),

Gene: ReMo\_59 Start: 36570, Stop: 35806, Start Num: 148

Candidate Starts for ReMo\_59:

(104, 36666), (106, 36660), (127, 36615), (Start: 148 @36570 has 548 MA's), (184, 36333), (206, 36216), (228, 36081), (234, 36057), (246, 35979), (249, 35961), (251, 35955), (262, 35895), (266, 35874),

Gene: Reba\_58 Start: 37251, Stop: 36484, Start Num: 148

Candidate Starts for Reba\_58:

(Start: 147 @37254 has 12 MA's), (Start: 148 @37251 has 548 MA's), (164, 37146), (167, 37125), (173, 37065), (216, 36831), (230, 36750), (232, 36741), (234, 36735), (241, 36678), (246, 36657), (249, 36639), (251, 36633), (262, 36573),

Gene: Rebeuca\_53 Start: 37374, Stop: 36607, Start Num: 148

Candidate Starts for Rebeuca\_53:

(79, 37455), (Start: 148 @37374 has 548 MA's), (Start: 157 @37314 has 2 MA's), (164, 37269), (167, 37248), (173, 37188), (197, 37053), (232, 36864), (234, 36858), (246, 36780), (249, 36762), (251, 36756),

Gene: RedRock\_58 Start: 38914, Stop: 38144, Start Num: 148

Candidate Starts for RedRock\_58:

(Start: 148 @38914 has 548 MA's), (167, 38788), (173, 38728), (205, 38557), (221, 38464), (232, 38401), (233, 38398), (234, 38395), (236, 38371), (249, 38299), (251, 38293),

Gene: Refuge\_54 Start: 38731, Stop: 37964, Start Num: 148

Candidate Starts for Refuge\_54:

(68, 38938), (87, 38854), (105, 38812), (Start: 129 @38764 has 1 MA's), (Start: 148 @38731 has 548 MA's), (160, 38659), (163, 38647), (164, 38626), (167, 38605), (186, 38476), (206, 38371), (208, 38350), (209, 38347), (210, 38344), (222, 38275), (227, 38239), (228, 38236), (232, 38218), (243, 38149), (246, 38137), (249, 38119), (251, 38113),

Gene: Relief\_51 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Relief\_51:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Remus\_61 Start: 36576, Stop: 35812, Start Num: 148

Candidate Starts for Remus\_61:

(104, 36672), (106, 36666), (127, 36621), (Start: 148 @36576 has 548 MA's), (184, 36339), (198, 36255), (206, 36222), (228, 36087), (234, 36063), (246, 35985), (249, 35967), (251, 35961), (262, 35901), (266, 35880),

Gene: ResDef\_55 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for ResDef\_55:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: RetrieverFever\_65 Start: 34709, Stop: 35473, Start Num: 147

Candidate Starts for RetrieverFever\_65:

(Start: 147 @34709 has 12 MA's), (Start: 151 @34727 has 9 MA's), (181, 34934), (217, 35138), (246, 35306), (249, 35324), (259, 35375), (266, 35411), (270, 35432), (275, 35462),

Gene: Retro23\_57 Start: 38080, Stop: 37310, Start Num: 148

Candidate Starts for Retro23\_57:

(Start: 148 @38080 has 548 MA's), (Start: 157 @38020 has 2 MA's), (164, 37975), (167, 37954), (170, 37897), (173, 37894), (206, 37720), (221, 37630), (233, 37564), (234, 37561), (236, 37537), (249, 37465), (251, 37459),

Gene: RexFury\_43 Start: 33634, Stop: 32864, Start Num: 145

Candidate Starts for RexFury\_43:

(82, 33784), (87, 33760), (111, 33712), (116, 33700), (130, 33670), (Start: 145 @33634 has 36 MA's), (Start: 148 @33628 has 548 MA's), (Start: 157 @33568 has 2 MA's), (173, 33442), (203, 33283), (204, 33277), (234, 33112), (247, 33031), (249, 33019), (251, 33013), (261, 32956), (263, 32947), (268, 32920), (277, 32869),

Gene: Rhodalya\_44 Start: 33597, Stop: 32833, Start Num: 148

Candidate Starts for Rhodalya\_44:

(82, 33753), (87, 33729), (111, 33681), (116, 33669), (130, 33639), (Start: 145 @33603 has 36 MA's), (Start: 148 @33597 has 548 MA's), (Start: 157 @33537 has 2 MA's), (173, 33411), (203, 33252), (204, 33246), (234, 33081), (247, 33000), (249, 32988), (251, 32982), (261, 32925), (263, 32916), (268, 32889), (277, 32838),

Gene: RhynO\_54 Start: 37173, Stop: 36406, Start Num: 148

Candidate Starts for RhynO\_54:

(79, 37254), (Start: 148 @37173 has 548 MA's), (164, 37068), (167, 37047), (173, 36987), (197, 36852), (232, 36663), (234, 36657), (246, 36579), (249, 36561), (251, 36555),

Gene: Rhynn\_50 Start: 37162, Stop: 36395, Start Num: 148

Candidate Starts for Rhynn\_50:

(Start: 148 @37162 has 548 MA's), (155, 37126), (Start: 157 @37102 has 2 MA's), (164, 37057), (173, 36976), (181, 36940), (188, 36901), (204, 36811), (208, 36784), (219, 36724), (221, 36715), (232, 36652), (246, 36568), (249, 36550), (251, 36544), (259, 36499), (261, 36487),

Gene: Rideau\_72 Start: 35178, Stop: 36158, Start Num: 69

Candidate Starts for Rideau\_72:

(49, 35112), (69, 35178), (73, 35205), (109, 35307), (Start: 147 @35394 has 12 MA's), (Start: 151 @35412 has 9 MA's), (161, 35475), (217, 35823), (241, 35973), (246, 35991), (249, 36009), (258, 36057), (259, 36060), (270, 36117), (275, 36147),

Gene: Rifter\_58 Start: 36165, Stop: 35395, Start Num: 148

Candidate Starts for Rifter\_58:

(Start: 129 @36201 has 1 MA's), (Start: 148 @36165 has 548 MA's), (156, 36108), (160, 36093), (167, 36039), (170, 35982), (173, 35979), (174, 35976), (221, 35715), (234, 35646), (249, 35550), (251, 35544), (262, 35484), (271, 35439),

Gene: Roary\_54 Start: 35983, Stop: 35216, Start Num: 148

Candidate Starts for Roary\_54:

(89, 36112), (Start: 148 @35983 has 548 MA's), (Start: 157 @35923 has 2 MA's), (159, 35914), (167, 35857), (186, 35728), (214, 35578), (229, 35485), (234, 35467), (244, 35398), (246, 35389), (249, 35371), (251, 35365), (262, 35305), (266, 35284),

Gene: Rockstar\_55 Start: 36982, Stop: 36215, Start Num: 148

Candidate Starts for Rockstar\_55:

(79, 37039), (Start: 148 @36982 has 548 MA's), (164, 36877), (167, 36856), (173, 36796), (214, 36577), (233, 36469), (234, 36466), (241, 36409), (249, 36370), (277, 36220),

Gene: Rohr\_52 Start: 37905, Stop: 37138, Start Num: 148

Candidate Starts for Rohr\_52:

(Start: 148 @37905 has 548 MA's), (155, 37869), (Start: 157 @37845 has 2 MA's), (164, 37800), (173, 37719), (181, 37683), (188, 37644), (204, 37554), (208, 37527), (219, 37467), (221, 37458), (232, 37395), (246, 37311), (249, 37293), (251, 37287), (259, 37242), (261, 37230),

Gene: Roksolana\_59 Start: 36999, Stop: 36229, Start Num: 148

Candidate Starts for Roksolana\_59:

(Start: 129 @37035 has 1 MA's), (Start: 148 @36999 has 548 MA's), (156, 36942), (160, 36927), (167, 36873), (170, 36816), (173, 36813), (174, 36810), (221, 36549), (234, 36480), (249, 36384), (251, 36378), (269, 36282), (271, 36273),

Gene: Romero\_69 Start: 35370, Stop: 36146, Start Num: 139

Candidate Starts for Romero\_69:

(Start: 139 @35370 has 8 MA's), (142, 35376), (Start: 147 @35382 has 12 MA's), (159, 35454), (161, 35463), (179, 35601), (194, 35685), (208, 35763), (217, 35811), (233, 35901), (237, 35931), (241, 35961), (246, 35979), (248, 35994), (249, 35997), (254, 36021), (257, 36036), (258, 36045), (259, 36048), (266, 36084), (269, 36099), (270, 36105), (271, 36108),

Gene: Romney\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Romney\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Roosevelt\_51 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Roosevelt\_51:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Rosalind\_59 Start: 36713, Stop: 35949, Start Num: 148

Candidate Starts for Rosalind\_59:

(Start: 148 @36713 has 548 MA's), (Start: 157 @36656 has 2 MA's), (184, 36476), (206, 36359), (228, 36224), (234, 36200), (246, 36122), (249, 36104), (251, 36098), (262, 36038), (266, 36017),

Gene: RosePharie\_69 Start: 34973, Stop: 35737, Start Num: 147

Candidate Starts for RosePharie\_69:

(Start: 147 @34973 has 12 MA's), (Start: 151 @34991 has 9 MA's), (161, 35054), (179, 35192), (208, 35354), (217, 35402), (241, 35552), (246, 35570), (247, 35576), (249, 35588), (257, 35627), (259, 35639), (261, 35651), (269, 35690), (270, 35696),

Gene: Rubeus\_51 Start: 35762, Stop: 34995, Start Num: 148

Candidate Starts for Rubeus\_51:

(Start: 148 @35762 has 548 MA's), (155, 35726), (Start: 157 @35702 has 2 MA's), (164, 35657), (173, 35576), (181, 35540), (188, 35501), (204, 35411), (208, 35384), (219, 35324), (221, 35315), (232, 35252), (246, 35168), (249, 35150), (251, 35144), (259, 35099), (261, 35087),

Gene: Rufus\_52 Start: 37532, Stop: 36765, Start Num: 148

Candidate Starts for Rufus\_52:

(Start: 148 @37532 has 548 MA's), (155, 37496), (Start: 157 @37472 has 2 MA's), (164, 37427), (173, 37346), (181, 37310), (188, 37271), (204, 37181), (208, 37154), (219, 37094), (221, 37085), (232, 37022), (246, 36938), (249, 36920), (251, 36914), (259, 36869), (261, 36857),

Gene: Ruin\_52 Start: 37105, Stop: 36338, Start Num: 117

Candidate Starts for Ruin\_52:

(Start: 117 @37105 has 107 MA's), (Start: 151 @37090 has 9 MA's), (159, 37036), (164, 37000), (167, 36979), (197, 36784), (232, 36595), (234, 36589), (249, 36493), (251, 36487),

Gene: Rummer\_57 Start: 37730, Stop: 36963, Start Num: 148

Candidate Starts for Rummer\_57:

(Start: 148 @37730 has 548 MA's), (164, 37625), (167, 37604), (173, 37544), (216, 37310), (230, 37229), (232, 37220), (234, 37214), (241, 37157), (246, 37136), (249, 37118), (251, 37112),

Gene: Ruotula\_54 Start: 38998, Stop: 38231, Start Num: 148

Candidate Starts for Ruotula\_54:

(Start: 148 @38998 has 548 MA's), (155, 38962), (167, 38872), (188, 38740), (200, 38671), (205, 38644), (219, 38560), (232, 38485), (234, 38479), (249, 38386), (259, 38335), (263, 38314),

Gene: Rutherford\_53 Start: 38378, Stop: 37611, Start Num: 148

Candidate Starts for Rutherford\_53:

(Start: 148 @38378 has 548 MA's), (Start: 157 @38318 has 2 MA's), (164, 38273), (173, 38192), (181, 38156), (188, 38117), (204, 38027), (208, 38000), (219, 37940), (221, 37931), (232, 37868), (241, 37805), (246, 37784), (249, 37766), (251, 37760), (259, 37715), (261, 37703),

Gene: STLscum\_54 Start: 38774, Stop: 38007, Start Num: 148

Candidate Starts for STLscum\_54:

(21, 39185), (39, 39083), (43, 39071), (45, 39068), (48, 39062), (52, 39038), (Start: 148 @38774 has 548 MA's), (155, 38738), (Start: 157 @38714 has 2 MA's), (164, 38669), (173, 38588), (181, 38552), (188, 38513), (204, 38423), (208, 38396), (219, 38336), (221, 38327), (232, 38264), (246, 38180), (249, 38162), (251, 38156), (259, 38111), (261, 38099),

Gene: Sabertooth\_52 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Sabertooth\_52:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496),

Gene: Sabia\_58 Start: 37711, Stop: 36944, Start Num: 148

Candidate Starts for Sabia\_58:

(Start: 148 @37711 has 548 MA's), (164, 37606), (167, 37585), (173, 37525), (216, 37291), (230, 37210), (232, 37201), (234, 37195), (241, 37138), (246, 37117), (249, 37099), (251, 37093),

Gene: Sabinator\_57 Start: 37701, Stop: 36934, Start Num: 148

Candidate Starts for Sabinator\_57:

(Start: 148 @37701 has 548 MA's), (164, 37596), (167, 37575), (173, 37515), (216, 37281), (230, 37200), (232, 37191), (234, 37185), (241, 37128), (246, 37107), (249, 37089), (251, 37083),

Gene: Sagefire\_54 Start: 38742, Stop: 37975, Start Num: 148

Candidate Starts for Sagefire\_54:

(Start: 148 @38742 has 548 MA's), (152, 38724), (154, 38712), (167, 38616), (188, 38484), (200, 38415), (205, 38388), (210, 38358), (219, 38304), (234, 38226), (237, 38199), (241, 38169), (242, 38166), (248, 38133), (249, 38130), (255, 38100),

Gene: Saintus\_48 Start: 32690, Stop: 31923, Start Num: 148

Candidate Starts for Saintus\_48:

(89, 32819), (Start: 148 @32690 has 548 MA's), (Start: 157 @32630 has 2 MA's), (159, 32621), (167, 32564), (186, 32435), (193, 32396), (214, 32285), (229, 32192), (234, 32174), (244, 32105), (246, 32096), (249, 32078), (251, 32072), (262, 32012), (266, 31991),

Gene: SaltySpitoon\_71 Start: 52317, Stop: 53078, Start Num: 144

Candidate Starts for SaltySpitoon\_71:

(133, 52287), (134, 52290), (Start: 144 @52317 has 59 MA's), (150, 52329), (156, 52380), (Start: 157 @52383 has 2 MA's), (161, 52401), (192, 52617), (209, 52707), (224, 52800), (235, 52857), (248, 52923), (254, 52941),

Gene: Salz\_54 Start: 36642, Stop: 35875, Start Num: 148

Candidate Starts for Salz\_54:

(137, 36654), (Start: 148 @36642 has 548 MA's), (159, 36573), (167, 36516), (186, 36387), (190, 36360), (192, 36351), (210, 36255), (227, 36150), (243, 36060), (246, 36048), (249, 36030), (251, 36024), (261, 35967), (266, 35943),

Gene: Samisti12\_69 Start: 54168, Stop: 54926, Start Num: 144

Candidate Starts for Samisti12\_69:

(Start: 144 @54168 has 59 MA's), (150, 54177), (156, 54228), (164, 54276), (198, 54498), (202, 54510), (235, 54705), (248, 54771), (254, 54789), (263, 54840),

Gene: SarFire\_49 Start: 37099, Stop: 36332, Start Num: 148

Candidate Starts for SarFire\_49:

(94, 37222), (Start: 148 @37099 has 548 MA's), (Start: 157 @37039 has 2 MA's), (164, 36994), (173, 36913), (181, 36877), (188, 36838), (204, 36748), (208, 36721), (219, 36661), (221, 36652), (232, 36589), (246, 36505), (249, 36487), (251, 36481), (259, 36436), (261, 36424),

Gene: SaturnRing\_56 Start: 37521, Stop: 36754, Start Num: 148

Candidate Starts for SaturnRing\_56:

(79, 37578), (Start: 148 @37521 has 548 MA's), (164, 37416), (167, 37395), (173, 37335), (214, 37116), (234, 37005), (241, 36948), (246, 36927), (249, 36909),

Gene: Scamp\_52 Start: 37114, Stop: 36347, Start Num: 117

Candidate Starts for Scamp\_52:

(Start: 117 @37114 has 107 MA's), (Start: 151 @37099 has 9 MA's), (159, 37045), (164, 37009), (167, 36988), (197, 36793), (232, 36604), (234, 36598), (249, 36502), (251, 36496), (262, 36436),

Gene: Scherzo\_56 Start: 37967, Stop: 37197, Start Num: 148

Candidate Starts for Scherzo\_56:

(Start: 148 @37967 has 548 MA's), (159, 37898), (167, 37841), (198, 37643), (206, 37607), (210, 37580), (222, 37511), (228, 37472), (229, 37466), (233, 37451), (234, 37448), (246, 37370), (249, 37352), (251, 37346), (272, 37226),

Gene: Scorpia\_53 Start: 36495, Stop: 35725, Start Num: 148

Candidate Starts for Scorpia\_53:

(Start: 148 @36495 has 548 MA's), (164, 36390), (167, 36369), (173, 36309), (197, 36174), (202, 36159), (206, 36138), (234, 35979), (249, 35883), (251, 35877),

Gene: Scout\_55 Start: 36669, Stop: 35902, Start Num: 148

Candidate Starts for Scout\_55:

(79, 36726), (Start: 148 @36669 has 548 MA's), (164, 36564), (167, 36543), (173, 36483), (214, 36264), (233, 36156), (234, 36153), (235, 36135), (241, 36096), (249, 36057), (277, 35907),

Gene: Scowl\_52 Start: 38030, Stop: 37263, Start Num: 148

Candidate Starts for Scowl\_52:

(Start: 148 @38030 has 548 MA's), (152, 38012), (154, 38000), (167, 37904), (188, 37772), (200, 37703), (205, 37676), (219, 37592), (234, 37514), (237, 37487), (241, 37457), (242, 37454), (248, 37421), (249, 37418), (255, 37388),

Gene: Seabiscuit\_54 Start: 37638, Stop: 36871, Start Num: 148

Candidate Starts for Seabiscuit\_54:

(Start: 148 @37638 has 548 MA's), (155, 37602), (167, 37512), (188, 37380), (200, 37311), (205, 37284), (219, 37200), (232, 37125), (234, 37119), (249, 37026), (259, 36975), (263, 36954),

Gene: SemperFi\_57 Start: 37932, Stop: 37162, Start Num: 148

Candidate Starts for SemperFi\_57:

(29, 38100), (Start: 148 @37932 has 548 MA's), (Start: 157 @37872 has 2 MA's), (167, 37806), (170, 37749), (173, 37746), (206, 37572), (221, 37482), (236, 37389), (246, 37335), (249, 37317), (251, 37311),

Gene: Serenity\_56 Start: 36898, Stop: 36128, Start Num: 148

Candidate Starts for Serenity\_56:

(26, 37264), (99, 37003), (Start: 148 @36898 has 548 MA's), (Start: 157 @36838 has 2 MA's), (164, 36793), (167, 36772), (186, 36643), (210, 36511), (214, 36490), (222, 36442), (232, 36385), (234, 36379), (235, 36361), (246, 36301), (249, 36283), (251, 36277), (263, 36211), (277, 36133),

Gene: SeresaTree\_49 Start: 42651, Stop: 43466, Start Num: 149

Candidate Starts for SeresaTree\_49:

(121, 42588), (Start: 149 @42651 has 23 MA's), (162, 42726), (164, 42750), (170, 42831), (186, 42972), (194, 43017), (202, 43050), (204, 43062), (232, 43215), (237, 43248), (239, 43266), (254, 43329), (263, 43380), (272, 43437),

Gene: Severus\_51 Start: 36251, Stop: 35484, Start Num: 148

Candidate Starts for Severus\_51:

(79, 36305), (Start: 148 @36251 has 548 MA's), (164, 36146), (167, 36125), (173, 36065), (184, 36011), (197, 35930), (234, 35735), (246, 35657), (249, 35639), (251, 35633),

Gene: Shaka\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Shaka\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Sham\_46 Start: 43193, Stop: 44008, Start Num: 149

Candidate Starts for Sham\_46:

(Start: 149 @43193 has 23 MA's), (162, 43268), (164, 43292), (186, 43514), (194, 43559), (204, 43604), (239, 43808), (254, 43871),

Gene: Sham4\_55 Start: 36670, Stop: 35903, Start Num: 148

Candidate Starts for Sham4\_55:

(137, 36682), (Start: 148 @36670 has 548 MA's), (159, 36601), (167, 36544), (186, 36415), (190, 36388), (192, 36379), (210, 36283), (227, 36178), (243, 36088), (246, 36076), (249, 36058), (251, 36052), (261, 35995), (266, 35971),

Gene: ShayRa\_61 Start: 36757, Stop: 35993, Start Num: 148

Candidate Starts for ShayRa\_61:

(104, 36853), (106, 36847), (127, 36802), (Start: 148 @36757 has 548 MA's), (184, 36520), (206, 36403), (228, 36268), (234, 36244), (246, 36166), (249, 36148), (251, 36142), (262, 36082), (266, 36061),

Gene: SheaKeira\_54 Start: 37188, Stop: 36418, Start Num: 148

Candidate Starts for SheaKeira\_54:

(107, 37275), (110, 37272), (142, 37194), (Start: 148 @37188 has 548 MA's), (159, 37119), (167, 37062), (180, 36969), (186, 36933), (216, 36765), (228, 36693), (233, 36672), (234, 36669), (246, 36591), (249, 36573), (251, 36567), (272, 36447),

Gene: Sheen\_54 Start: 39531, Stop: 38758, Start Num: 148

Candidate Starts for Sheen\_54:

(90, 39612), (Start: 148 @39531 has 548 MA's), (Start: 151 @39516 has 9 MA's), (152, 39513), (155, 39495), (159, 39462), (167, 39405), (193, 39237), (205, 39174), (210, 39144), (231, 39024), (232, 39018), (233, 39015), (234, 39012), (246, 38934), (249, 38916), (252, 38907), (259, 38865),

Gene: SheldonCooper\_54 Start: 37549, Stop: 36782, Start Num: 117

Candidate Starts for SheldonCooper\_54:

(Start: 117 @37549 has 107 MA's), (Start: 151 @37534 has 9 MA's), (159, 37480), (164, 37444), (167, 37423), (173, 37363), (197, 37228), (232, 37039), (234, 37033), (249, 36937), (251, 36931),

Gene: Shuman\_44 Start: 33548, Stop: 32778, Start Num: 145

Candidate Starts for Shuman\_44:

(82, 33698), (87, 33674), (111, 33626), (116, 33614), (130, 33584), (Start: 145 @33548 has 36 MA's), (Start: 148 @33542 has 548 MA's), (Start: 157 @33482 has 2 MA's), (164, 33437), (173, 33356), (203, 33197), (204, 33191), (234, 33026), (249, 32933), (251, 32927), (261, 32870), (263, 32861), (268, 32834), (277, 32783),

Gene: Shygu2\_51 Start: 37085, Stop: 36318, Start Num: 148

Candidate Starts for Shygu2\_51:

(79, 37124), (Start: 148 @37085 has 548 MA's), (Start: 151 @37070 has 9 MA's), (159, 37016), (167, 36959), (173, 36899), (203, 36740), (232, 36575), (234, 36569), (249, 36473), (251, 36467),

Gene: Sibs6\_53 Start: 36566, Stop: 35799, Start Num: 148

Candidate Starts for Sibs6\_53:

(Start: 148 @36566 has 548 MA's), (155, 36530), (167, 36440), (188, 36308), (200, 36239), (205, 36212), (219, 36128), (232, 36053), (234, 36047), (249, 35954), (259, 35903), (263, 35882),

Gene: SkiPole\_56 Start: 38495, Stop: 37728, Start Num: 148

Candidate Starts for SkiPole\_56:

(Start: 148 @38495 has 548 MA's), (155, 38459), (Start: 157 @38435 has 2 MA's), (164, 38390), (173, 38309), (181, 38273), (188, 38234), (204, 38144), (208, 38117), (219, 38057), (221, 38048), (232, 37985), (246, 37901), (249, 37883), (251, 37877), (259, 37832), (261, 37820),

Gene: Skipitt\_51 Start: 37106, Stop: 36339, Start Num: 117

Candidate Starts for Skipitt\_51:

(Start: 117 @37106 has 107 MA's), (Start: 151 @37091 has 9 MA's), (159, 37037), (164, 37001), (167, 36980), (197, 36785), (232, 36596), (234, 36590), (249, 36494), (251, 36488),

Gene: Smeadley\_54 Start: 36149, Stop: 35382, Start Num: 148

Candidate Starts for Smeadley\_54:

(89, 36278), (Start: 148 @36149 has 548 MA's), (Start: 157 @36089 has 2 MA's), (159, 36080), (167, 36023), (186, 35894), (214, 35744), (229, 35651), (234, 35633), (244, 35564), (246, 35555), (249, 35537), (251, 35531), (262, 35471), (266, 35450),

Gene: Smeagan\_59 Start: 38393, Stop: 37623, Start Num: 148

Candidate Starts for Smeagan\_59:

(23, 38621), (Start: 148 @38393 has 548 MA's), (Start: 157 @38333 has 2 MA's), (167, 38267), (170, 38210), (173, 38207), (206, 38033), (221, 37943), (236, 37850), (246, 37796), (249, 37778), (251, 37772),

Gene: Smeagol\_53 Start: 38991, Stop: 38224, Start Num: 148

Candidate Starts for Smeagol\_53:

(Start: 148 @38991 has 548 MA's), (152, 38973), (154, 38961), (167, 38865), (188, 38733), (200, 38664), (205, 38637), (210, 38607), (219, 38553), (234, 38475), (237, 38448), (241, 38418), (242, 38415), (248, 38382), (249, 38379), (255, 38349),

Gene: SmellyB\_57 Start: 36614, Stop: 35799, Start Num: 129

Candidate Starts for SmellyB\_57:

(Start: 129 @36614 has 1 MA's), (Start: 148 @36569 has 548 MA's), (156, 36512), (160, 36497), (164, 36464), (167, 36443), (170, 36386), (173, 36383), (221, 36119), (232, 36056), (234, 36050), (249, 35954), (251, 35948), (269, 35852), (271, 35843),

Gene: SnapTap\_56 Start: 37743, Stop: 36973, Start Num: 148

Candidate Starts for SnapTap\_56:

(29, 37911), (Start: 148 @37743 has 548 MA's), (Start: 157 @37683 has 2 MA's), (167, 37617), (170, 37560), (173, 37557), (206, 37383), (221, 37293), (236, 37200), (246, 37146), (249, 37128), (251, 37122),

Gene: Snape\_55 Start: 36662, Stop: 35895, Start Num: 148

Candidate Starts for Snape\_55:

(137, 36674), (Start: 148 @36662 has 548 MA's), (159, 36593), (167, 36536), (186, 36407), (190, 36380), (192, 36371), (210, 36275), (227, 36170), (243, 36080), (246, 36068), (249, 36050), (251, 36044), (261, 35987), (266, 35963),

Gene: Snazzy\_50 Start: 37172, Stop: 36405, Start Num: 148

Candidate Starts for Snazzy\_50:

(Start: 148 @37172 has 548 MA's), (155, 37136), (Start: 157 @37112 has 2 MA's), (164, 37067), (173, 36986), (181, 36950), (188, 36911), (204, 36821), (208, 36794), (219, 36734), (221, 36725), (232, 36662), (241, 36599), (246, 36578), (249, 36560), (251, 36554), (259, 36509), (261, 36497),

Gene: Snickers\_58 Start: 37676, Stop: 36909, Start Num: 148

Candidate Starts for Snickers\_58:

(Start: 148 @37676 has 548 MA's), (164, 37571), (167, 37550), (173, 37490), (216, 37256), (230, 37175), (232, 37166), (234, 37160), (241, 37103), (246, 37082), (249, 37064), (251, 37058),

Gene: SoYo\_58 Start: 37614, Stop: 36847, Start Num: 148

Candidate Starts for SoYo\_58:

(Start: 148 @37614 has 548 MA's), (164, 37509), (167, 37488), (173, 37428), (216, 37194), (230, 37113), (232, 37104), (234, 37098), (241, 37041), (246, 37020), (249, 37002), (251, 36996),

Gene: SoilDragon\_58 Start: 37150, Stop: 36383, Start Num: 148

Candidate Starts for SoilDragon\_58:

(Start: 148 @37150 has 548 MA's), (164, 37045), (167, 37024), (173, 36964), (216, 36730), (230, 36649), (232, 36640), (234, 36634), (241, 36577), (246, 36556), (249, 36538), (251, 36532),

Gene: Sollertia\_71 Start: 52285, Stop: 53046, Start Num: 144

Candidate Starts for Sollertia\_71:

(133, 52255), (134, 52258), (Start: 144 @52285 has 59 MA's), (150, 52297), (156, 52348), (Start: 157 @52351 has 2 MA's), (158, 52357), (161, 52369), (176, 52495), (235, 52825), (248, 52891), (254, 52909), (269, 52993),

Gene: Solon\_50 Start: 37430, Stop: 36663, Start Num: 148

Candidate Starts for Solon\_50:

(Start: 148 @37430 has 548 MA's), (Start: 157 @37370 has 2 MA's), (164, 37325), (173, 37244), (181, 37208), (188, 37169), (204, 37079), (208, 37052), (219, 36992), (221, 36983), (232, 36920), (246, 36836), (249, 36818), (251, 36812), (259, 36767), (261, 36755),

Gene: SororFago\_58 Start: 38770, Stop: 38003, Start Num: 148

Candidate Starts for SororFago\_58:

(Start: 148 @38770 has 548 MA's), (159, 38701), (164, 38665), (167, 38644), (184, 38530), (186, 38515), (197, 38449), (206, 38410), (210, 38383), (233, 38254), (234, 38251), (246, 38176), (249, 38158), (251, 38152),

Gene: Soshari\_60 Start: 37726, Stop: 36959, Start Num: 148

Candidate Starts for Soshari\_60:

(Start: 148 @37726 has 548 MA's), (164, 37621), (167, 37600), (173, 37540), (216, 37306), (230, 37225), (232, 37216), (234, 37210), (241, 37153), (246, 37132), (249, 37114), (251, 37108),

Gene: Soups\_61 Start: 36996, Stop: 36232, Start Num: 148

Candidate Starts for Soups\_61:

(Start: 148 @36996 has 548 MA's), (184, 36759), (206, 36642), (228, 36507), (234, 36483), (246, 36405), (249, 36387), (251, 36381), (262, 36321), (266, 36300),

Gene: SparkleGoddess\_49 Start: 43333, Stop: 44148, Start Num: 149

Candidate Starts for SparkleGoddess\_49:

(Start: 140 @43318 has 1 MA's), (142, 43321), (Start: 149 @43333 has 23 MA's), (162, 43408), (191, 43687), (192, 43690), (194, 43699), (204, 43744), (207, 43756), (232, 43897), (239, 43948), (248, 43987), (254, 44011),

Gene: Sparxx\_53 Start: 37107, Stop: 36340, Start Num: 117

Candidate Starts for Sparxx\_53:

(Start: 117 @37107 has 107 MA's), (Start: 151 @37092 has 9 MA's), (159, 37038), (164, 37002), (167, 36981), (197, 36786), (232, 36597), (234, 36591), (249, 36495), (251, 36489),

Gene: Spelly\_71 Start: 52272, Stop: 53033, Start Num: 144

Candidate Starts for Spelly\_71:

(133, 52242), (134, 52245), (Start: 144 @52272 has 59 MA's), (150, 52284), (156, 52335), (Start: 157 @52338 has 2 MA's), (161, 52356), (192, 52572), (209, 52662), (224, 52755), (235, 52812), (248, 52878), (254, 52896),

Gene: Spike509\_58 Start: 37727, Stop: 36960, Start Num: 148

Candidate Starts for Spike509\_58:

(Start: 148 @37727 has 548 MA's), (164, 37622), (167, 37601), (173, 37541), (216, 37307), (230, 37226), (232, 37217), (234, 37211), (241, 37154), (246, 37133), (249, 37115), (251, 37109),

Gene: SpikeBT\_51 Start: 37790, Stop: 37023, Start Num: 148

Candidate Starts for SpikeBT\_51:

(Start: 148 @37790 has 548 MA's), (155, 37754), (Start: 157 @37730 has 2 MA's), (164, 37685), (173, 37604), (181, 37568), (188, 37529), (204, 37439), (208, 37412), (219, 37352), (221, 37343), (232, 37280), (246, 37196), (249, 37178), (251, 37172), (259, 37127), (261, 37115),

Gene: Spilled\_72 Start: 52389, Stop: 53150, Start Num: 144

Candidate Starts for Spilled\_72:

(133, 52359), (134, 52362), (Start: 144 @52389 has 59 MA's), (150, 52401), (156, 52452), (Start: 157 @52455 has 2 MA's), (161, 52473), (192, 52689), (209, 52779), (224, 52872), (235, 52929), (248, 52995), (254, 53013),

Gene: Spino\_51 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for Spino\_51:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Spouty\_54 Start: 37747, Stop: 36977, Start Num: 148

Candidate Starts for Spouty\_54:

(Start: 148 @37747 has 548 MA's), (159, 37678), (167, 37621), (188, 37486), (198, 37423), (206, 37387), (210, 37360), (222, 37291), (228, 37252), (229, 37246), (233, 37231), (234, 37228), (246, 37150), (249, 37132), (251, 37126), (272, 37006),

Gene: Squee\_52 Start: 38127, Stop: 37360, Start Num: 148

Candidate Starts for Squee\_52:

(94, 38250), (Start: 148 @38127 has 548 MA's), (Start: 157 @38067 has 2 MA's), (164, 38022), (173, 37941), (181, 37905), (188, 37866), (204, 37776), (208, 37749), (219, 37689), (221, 37680), (232, 37617), (241, 37554), (246, 37533), (249, 37515), (251, 37509), (259, 37464), (261, 37452),

Gene: Squillium\_68 Start: 52363, Stop: 53124, Start Num: 144

Candidate Starts for Squillium\_68:

(Start: 144 @52363 has 59 MA's), (150, 52375), (156, 52426), (204, 52723), (224, 52846), (231, 52873), (235, 52903), (236, 52909), (248, 52969), (254, 52987), (276, 53110),

Gene: StCroix\_43 Start: 33616, Stop: 32846, Start Num: 145

Candidate Starts for StCroix\_43:

(82, 33766), (87, 33742), (111, 33694), (116, 33682), (130, 33652), (Start: 145 @33616 has 36 MA's), (Start: 148 @33610 has 548 MA's), (Start: 157 @33550 has 2 MA's), (173, 33424), (203, 33265), (204, 33259), (234, 33094), (247, 33013), (249, 33001), (251, 32995), (261, 32938), (263, 32929), (268, 32902), (277, 32851),

Gene: Stagni\_58 Start: 37705, Stop: 36938, Start Num: 148

Candidate Starts for Stagni\_58:

(Start: 148 @37705 has 548 MA's), (164, 37600), (167, 37579), (173, 37519), (216, 37285), (230, 37204), (232, 37195), (234, 37189), (241, 37132), (246, 37111), (249, 37093), (251, 37087),

Gene: Stanimal\_71 Start: 52174, Stop: 52935, Start Num: 144

Candidate Starts for Stanimal\_71:

(133, 52144), (134, 52147), (Start: 144 @52174 has 59 MA's), (150, 52186), (156, 52237), (Start: 157 @52240 has 2 MA's), (158, 52246), (161, 52258), (176, 52384), (235, 52714), (248, 52780), (254, 52798), (269, 52882),

Gene: StarPlatinum\_71 Start: 52817, Stop: 53578, Start Num: 144

Candidate Starts for StarPlatinum\_71:

(133, 52787), (134, 52790), (Start: 144 @52817 has 59 MA's), (150, 52829), (156, 52880), (Start: 157 @52883 has 2 MA's), (161, 52901), (202, 53162), (224, 53300), (235, 53357), (248, 53423), (254, 53441), (269, 53525),

Gene: StarStuff\_58 Start: 37554, Stop: 36787, Start Num: 148

Candidate Starts for StarStuff\_58:

(Start: 148 @37554 has 548 MA's), (159, 37485), (167, 37428), (184, 37314), (206, 37194), (208, 37173), (210, 37167), (214, 37146), (222, 37098), (227, 37062), (232, 37041), (243, 36972), (246, 36960), (249, 36942), (251, 36936), (262, 36876),

Gene: Starbow\_69 Start: 52293, Stop: 53054, Start Num: 144

Candidate Starts for Starbow\_69:

(133, 52263), (134, 52266), (Start: 144 @52293 has 59 MA's), (150, 52305), (156, 52356), (Start: 157 @52359 has 2 MA's), (161, 52377), (192, 52593), (209, 52683), (224, 52776), (235, 52833), (248, 52899), (254, 52917),

Gene: Stasia\_51 Start: 36988, Stop: 36221, Start Num: 148

Candidate Starts for Stasia\_51:

(Start: 148 @36988 has 548 MA's), (Start: 151 @36973 has 9 MA's), (159, 36919), (167, 36862), (173, 36802), (197, 36667), (234, 36472), (249, 36376), (251, 36370),

Gene: Steamy\_52 Start: 37237, Stop: 36470, Start Num: 148

Candidate Starts for Steamy\_52:

(102, 37330), (112, 37312), (Start: 148 @37237 has 548 MA's), (164, 37132), (167, 37111), (186, 36982), (227, 36745), (228, 36742), (232, 36724), (243, 36655), (246, 36643), (249, 36625), (251, 36619),

Gene: Stella\_70 Start: 35851, Stop: 36615, Start Num: 147

Candidate Starts for Stella\_70:

(2, 35206), (3, 35248), (4, 35254), (6, 35278), (8, 35290), (12, 35356), (13, 35362), (14, 35395), (15, 35422), (18, 35431), (21, 35449), (30, 35512), (32, 35518), (45, 35566), (100, 35752), (103, 35758), (Start: 147 @35851 has 12 MA's), (Start: 151 @35869 has 9 MA's), (161, 35932), (194, 36154), (212, 36253), (217, 36280), (226, 36340), (241, 36430), (246, 36448), (249, 36466), (254, 36490), (257, 36505), (259, 36517), (266, 36553), (270, 36574), (275, 36604),

Gene: StepMih\_58 Start: 37696, Stop: 36929, Start Num: 148

Candidate Starts for StepMih\_58:

(Start: 148 @37696 has 548 MA's), (164, 37591), (167, 37570), (173, 37510), (216, 37276), (230, 37195), (232, 37186), (234, 37180), (241, 37123), (246, 37102), (249, 37084), (251, 37078),

Gene: Stephig9\_54 Start: 36215, Stop: 35448, Start Num: 148

Candidate Starts for Stephig9\_54:

(89, 36344), (Start: 148 @36215 has 548 MA's), (Start: 157 @36155 has 2 MA's), (159, 36146), (167, 36089), (214, 35810), (229, 35717), (234, 35699), (244, 35630), (246, 35621), (249, 35603), (251, 35597), (262, 35537), (266, 35516),

Gene: StewieG\_50 Start: 34950, Stop: 34183, Start Num: 148

Candidate Starts for StewieG\_50:

(Start: 148 @34950 has 548 MA's), (155, 34914), (Start: 157 @34890 has 2 MA's), (164, 34845), (173, 34764), (181, 34728), (188, 34689), (204, 34599), (208, 34572), (219, 34512), (221, 34503), (232, 34440), (241, 34377), (246, 34356), (249, 34338), (251, 34332), (259, 34287), (261, 34275),

Gene: Stigma\_49 Start: 43347, Stop: 44162, Start Num: 149

Candidate Starts for Stigma\_49:

(124, 43293), (Start: 140 @43332 has 1 MA's), (142, 43335), (Start: 149 @43347 has 23 MA's), (162, 43422), (191, 43701), (192, 43704), (194, 43713), (204, 43758), (207, 43770), (232, 43911), (237, 43944), (239, 43962), (244, 43977), (248, 44001), (254, 44025),

Gene: Stink\_49 Start: 36839, Stop: 36072, Start Num: 117  
Candidate Starts for Stink\_49:  
(Start: 117 @36839 has 107 MA's), (Start: 151 @36824 has 9 MA's), (159, 36770), (167, 36713), (197, 36518), (232, 36329), (234, 36323), (249, 36227), (251, 36221),

Gene: StrongArm\_51 Start: 38628, Stop: 37861, Start Num: 148  
Candidate Starts for StrongArm\_51:  
(Start: 148 @38628 has 548 MA's), (152, 38610), (154, 38598), (167, 38502), (188, 38370), (200, 38301), (205, 38274), (219, 38190), (234, 38112), (237, 38085), (241, 38055), (242, 38052), (248, 38019), (249, 38016), (255, 37986),

Gene: Strosahl\_61 Start: 36576, Stop: 35812, Start Num: 148  
Candidate Starts for Strosahl\_61:  
(104, 36672), (106, 36666), (127, 36621), (Start: 148 @36576 has 548 MA's), (184, 36339), (198, 36255), (206, 36222), (228, 36087), (234, 36063), (246, 35985), (249, 35967), (251, 35961), (262, 35901), (266, 35880),

Gene: Success\_25 Start: 17211, Stop: 16402, Start Num: 149  
Candidate Starts for Success\_25:  
(Start: 149 @17211 has 23 MA's), (214, 16806), (231, 16710), (232, 16704), (234, 16698), (243, 16641), (248, 16614), (249, 16611), (274, 16476),

Gene: Sunshine924\_53 Start: 37245, Stop: 36478, Start Num: 148  
Candidate Starts for Sunshine924\_53:  
(Start: 148 @37245 has 548 MA's), (152, 37227), (153, 37224), (Start: 157 @37185 has 2 MA's), (177, 37038), (203, 36900), (210, 36861), (219, 36807), (232, 36735), (233, 36732), (234, 36729), (236, 36705), (244, 36660), (246, 36651), (249, 36633), (251, 36627), (259, 36582),

Gene: SuperAwesome\_57 Start: 36583, Stop: 35813, Start Num: 148  
Candidate Starts for SuperAwesome\_57:  
(Start: 148 @36583 has 548 MA's), (156, 36526), (164, 36478), (167, 36457), (170, 36400), (173, 36397), (221, 36133), (232, 36070), (234, 36064), (249, 35968), (251, 35962), (269, 35866), (271, 35857),

Gene: SuperCallie99\_56 Start: 36456, Stop: 35686, Start Num: 148  
Candidate Starts for SuperCallie99\_56:  
(Start: 129 @36501 has 1 MA's), (Start: 148 @36456 has 548 MA's), (156, 36399), (167, 36330), (170, 36273), (173, 36270), (221, 36006), (232, 35943), (234, 35937), (249, 35841), (251, 35835), (269, 35739), (271, 35730),

Gene: Superchunk\_54 Start: 36199, Stop: 35432, Start Num: 148  
Candidate Starts for Superchunk\_54:  
(Start: 148 @36199 has 548 MA's), (164, 36094), (167, 36073), (186, 35944), (206, 35839), (210, 35812), (222, 35743), (227, 35707), (232, 35686), (243, 35617), (246, 35605), (249, 35587), (251, 35581), (261, 35524), (262, 35521),

Gene: Sushi23\_69 Start: 53086, Stop: 53841, Start Num: 144  
Candidate Starts for Sushi23\_69:  
(Start: 144 @53086 has 59 MA's), (150, 53095), (156, 53146), (161, 53167), (162, 53170), (192, 53383), (202, 53428), (207, 53455), (220, 53536), (231, 53593), (248, 53689),

Gene: Swann\_44 Start: 33595, Stop: 32831, Start Num: 148

Candidate Starts for Swann\_44:

(82, 33751), (87, 33727), (111, 33679), (116, 33667), (130, 33637), (Start: 145 @33601 has 36 MA's), (Start: 148 @33595 has 548 MA's), (Start: 157 @33535 has 2 MA's), (173, 33409), (203, 33250), (204, 33244), (234, 33079), (247, 32998), (249, 32986), (251, 32980), (261, 32923), (263, 32914), (268, 32887), (277, 32836),

Gene: SweetiePie\_56 Start: 37875, Stop: 37105, Start Num: 148

Candidate Starts for SweetiePie\_56:

(29, 38043), (Start: 148 @37875 has 548 MA's), (Start: 157 @37815 has 2 MA's), (167, 37749), (170, 37692), (173, 37689), (206, 37515), (221, 37425), (236, 37332), (246, 37278), (249, 37260), (251, 37254),

Gene: SwirlSquare\_61 Start: 37064, Stop: 36297, Start Num: 148

Candidate Starts for SwirlSquare\_61:

(113, 37136), (Start: 148 @37064 has 548 MA's), (Start: 157 @37004 has 2 MA's), (164, 36959), (167, 36938), (210, 36677), (222, 36608), (227, 36572), (232, 36551), (243, 36482), (246, 36470), (249, 36452), (251, 36446), (261, 36389), (262, 36386),

Gene: Swirley\_50 Start: 36674, Stop: 35904, Start Num: 148

Candidate Starts for Swirley\_50:

(Start: 148 @36674 has 548 MA's), (164, 36569), (167, 36548), (173, 36488), (186, 36419), (193, 36380), (197, 36353), (202, 36338), (234, 36158), (249, 36062), (251, 36056), (263, 35990),

Gene: SwissCheese\_53 Start: 37755, Stop: 36988, Start Num: 148

Candidate Starts for SwissCheese\_53:

(Start: 148 @37755 has 548 MA's), (152, 37737), (154, 37725), (167, 37629), (188, 37497), (200, 37428), (205, 37401), (210, 37371), (219, 37317), (234, 37239), (237, 37212), (241, 37182), (242, 37179), (248, 37146), (249, 37143), (255, 37113),

Gene: Switzerland\_60 Start: 36896, Stop: 36132, Start Num: 148

Candidate Starts for Switzerland\_60:

(104, 36992), (106, 36986), (127, 36941), (Start: 148 @36896 has 548 MA's), (184, 36659), (206, 36542), (228, 36407), (234, 36383), (246, 36305), (249, 36287), (251, 36281), (262, 36221), (266, 36200),

Gene: Swole\_52 Start: 36929, Stop: 36162, Start Num: 148

Candidate Starts for Swole\_52:

(Start: 148 @36929 has 548 MA's), (155, 36893), (167, 36803), (188, 36671), (200, 36602), (205, 36575), (219, 36491), (232, 36416), (234, 36410), (249, 36317), (259, 36266), (263, 36245),

Gene: SydNat\_51 Start: 37199, Stop: 36429, Start Num: 145

Candidate Starts for SydNat\_51:

(Start: 145 @37199 has 36 MA's), (164, 37094), (167, 37073), (173, 37013), (193, 36905), (202, 36863), (216, 36779), (234, 36683), (248, 36590), (249, 36587), (251, 36581), (261, 36524),

Gene: TNguyen7\_56 Start: 37487, Stop: 36720, Start Num: 148

Candidate Starts for TNguyen7\_56:

(79, 37544), (Start: 148 @37487 has 548 MA's), (164, 37382), (167, 37361), (173, 37301), (214, 37082), (234, 36971), (241, 36914), (246, 36893), (249, 36875),

Gene: TWAMP\_44 Start: 33597, Stop: 32833, Start Num: 148

Candidate Starts for TWAMP\_44:

(82, 33753), (87, 33729), (111, 33681), (116, 33669), (130, 33639), (Start: 145 @33603 has 36 MA's), (Start: 148 @33597 has 548 MA's), (Start: 157 @33537 has 2 MA's), (173, 33411), (203, 33252), (204, 33246), (234, 33081), (247, 33000), (249, 32988), (251, 32982), (261, 32925), (263, 32916), (268, 32889), (277, 32838),

Gene: Takoda\_44 Start: 33501, Stop: 32737, Start Num: 148

Candidate Starts for Takoda\_44:

(84, 33645), (136, 33519), (Start: 140 @33513 has 1 MA's), (Start: 148 @33501 has 548 MA's), (Start: 157 @33441 has 2 MA's), (173, 33315), (203, 33156), (204, 33150), (210, 33117), (234, 32985), (243, 32922), (249, 32892), (251, 32886), (261, 32829), (263, 32820), (268, 32793), (277, 32742),

Gene: Taquarus\_52 Start: 37100, Stop: 36348, Start Num: 151

Candidate Starts for Taquarus\_52:

(Start: 117 @37115 has 107 MA's), (Start: 151 @37100 has 9 MA's), (159, 37046), (164, 37010), (167, 36989), (197, 36794), (232, 36605), (234, 36599), (249, 36503), (251, 36497),

Gene: Targaryen\_70 Start: 53891, Stop: 54646, Start Num: 144

Candidate Starts for Targaryen\_70:

(Start: 144 @53891 has 59 MA's), (150, 53900), (153, 53915), (156, 53951), (161, 53972), (162, 53975), (227, 54383), (232, 54404), (248, 54494), (250, 54500),

Gene: Target\_52 Start: 36334, Stop: 35567, Start Num: 148

Candidate Starts for Target\_52:

(Start: 148 @36334 has 548 MA's), (152, 36316), (154, 36304), (167, 36208), (188, 36076), (200, 36007), (205, 35980), (210, 35950), (219, 35896), (234, 35818), (237, 35791), (241, 35761), (242, 35758), (248, 35725), (249, 35722), (255, 35692),

Gene: TarsusIV\_55 Start: 37706, Stop: 36936, Start Num: 148

Candidate Starts for TarsusIV\_55:

(Start: 148 @37706 has 548 MA's), (167, 37580), (170, 37523), (173, 37520), (174, 37517), (184, 37466), (188, 37445), (210, 37319), (221, 37256), (232, 37193), (233, 37190), (234, 37187), (236, 37163), (249, 37091), (251, 37085),

Gene: Tarynearal\_46 Start: 36116, Stop: 35346, Start Num: 145

Candidate Starts for Tarynearal\_46:

(Start: 145 @36116 has 36 MA's), (164, 36011), (167, 35990), (173, 35930), (186, 35861), (193, 35822), (197, 35795), (202, 35780), (216, 35696), (234, 35600), (235, 35582), (249, 35504), (251, 35498), (261, 35441), (263, 35432),

Gene: Tasp14\_53 Start: 38027, Stop: 37260, Start Num: 148

Candidate Starts for Tasp14\_53:

(20, 38438), (38, 38336), (42, 38324), (44, 38321), (47, 38315), (51, 38291), (Start: 148 @38027 has 548 MA's), (152, 38009), (154, 37997), (167, 37901), (188, 37769), (200, 37700), (205, 37673), (210, 37643), (219, 37589), (234, 37511), (237, 37484), (241, 37454), (242, 37451), (248, 37418), (249, 37415), (255, 37385),

Gene: Taurus\_59 Start: 37702, Stop: 36935, Start Num: 148

Candidate Starts for Taurus\_59:

(Start: 148 @37702 has 548 MA's), (164, 37597), (167, 37576), (173, 37516), (216, 37282), (230, 37201), (232, 37192), (234, 37186), (241, 37129), (246, 37108), (249, 37090), (251, 37084),

Gene: Teodoridan\_50 Start: 37221, Stop: 36454, Start Num: 148

Candidate Starts for Teodoridan\_50:

(94, 37344), (Start: 148 @37221 has 548 MA's), (152, 37203), (154, 37191), (167, 37095), (188, 36963), (200, 36894), (205, 36867), (219, 36783), (234, 36705), (237, 36678), (241, 36648), (242, 36645), (248, 36612), (249, 36609), (255, 36579),

Gene: Teutsch\_69 Start: 53349, Stop: 54104, Start Num: 144

Candidate Starts for Teutsch\_69:

(Start: 144 @53349 has 59 MA's), (150, 53358), (156, 53409), (161, 53430), (162, 53433), (192, 53646), (202, 53691), (207, 53718), (220, 53799), (231, 53856), (248, 53952),

Gene: Texage\_53 Start: 37478, Stop: 36711, Start Num: 148

Candidate Starts for Texage\_53:

(79, 37532), (Start: 148 @37478 has 548 MA's), (167, 37352), (173, 37292), (206, 37121), (214, 37073), (234, 36962), (241, 36905), (246, 36884), (249, 36866), (251, 36860), (277, 36716),

Gene: Thanksgivukkah\_51 Start: 37110, Stop: 36343, Start Num: 117

Candidate Starts for Thanksgivukkah\_51:

(Start: 117 @37110 has 107 MA's), (Start: 151 @37095 has 9 MA's), (159, 37041), (164, 37005), (167, 36984), (232, 36600), (234, 36594), (249, 36498), (251, 36492),

Gene: Theia\_47 Start: 36676, Stop: 35906, Start Num: 145

Candidate Starts for Theia\_47:

(Start: 145 @36676 has 36 MA's), (164, 36571), (167, 36550), (173, 36490), (193, 36382), (202, 36340), (216, 36256), (234, 36160), (249, 36064), (251, 36058), (261, 36001),

Gene: Thor\_49 Start: 36457, Stop: 35690, Start Num: 148

Candidate Starts for Thor\_49:

(94, 36580), (Start: 148 @36457 has 548 MA's), (Start: 157 @36397 has 2 MA's), (164, 36352), (173, 36271), (181, 36235), (188, 36196), (204, 36106), (208, 36079), (219, 36019), (221, 36010), (232, 35947), (246, 35863), (249, 35845), (251, 35839), (259, 35794), (261, 35782),

Gene: Tiffany\_58 Start: 37588, Stop: 36821, Start Num: 148

Candidate Starts for Tiffany\_58:

(Start: 148 @37588 has 548 MA's), (164, 37483), (167, 37462), (173, 37402), (216, 37168), (230, 37087), (232, 37078), (234, 37072), (241, 37015), (246, 36994), (249, 36976), (251, 36970),

Gene: Tiger\_47 Start: 35865, Stop: 35095, Start Num: 145

Candidate Starts for Tiger\_47:

(Start: 145 @35865 has 36 MA's), (164, 35760), (167, 35739), (173, 35679), (193, 35571), (202, 35529), (216, 35445), (234, 35349), (249, 35253), (251, 35247),

Gene: Timothy\_55 Start: 36639, Stop: 35872, Start Num: 148

Candidate Starts for Timothy\_55:

(137, 36651), (Start: 148 @36639 has 548 MA's), (159, 36570), (167, 36513), (186, 36384), (190, 36357), (192, 36348), (210, 36252), (227, 36147), (243, 36057), (246, 36045), (249, 36027), (251, 36021), (261, 35964), (266, 35940),

Gene: Timshel\_50 Start: 38321, Stop: 37551, Start Num: 148

Candidate Starts for Timshel\_50:

(Start: 148 @38321 has 548 MA's), (155, 38285), (167, 38195), (173, 38135), (193, 38027), (197, 38000), (206, 37964), (208, 37943), (231, 37817), (234, 37805), (235, 37787), (238, 37766), (246, 37727), (249, 37709), (251, 37703), (277, 37559),

Gene: TinaFeyge\_52 Start: 37107, Stop: 36340, Start Num: 117

Candidate Starts for TinaFeyge\_52:

(Start: 117 @37107 has 107 MA's), (Start: 151 @37092 has 9 MA's), (159, 37038), (164, 37002), (167, 36981), (197, 36786), (232, 36597), (234, 36591), (249, 36495), (251, 36489),

Gene: TinyTimmy\_54 Start: 36688, Stop: 35921, Start Num: 148

Candidate Starts for TinyTimmy\_54:

(137, 36700), (Start: 148 @36688 has 548 MA's), (159, 36619), (167, 36562), (186, 36433), (190, 36406), (192, 36397), (210, 36301), (227, 36196), (243, 36106), (246, 36094), (249, 36076), (251, 36070), (261, 36013), (266, 35989),

Gene: Tinybot\_51 Start: 37139, Stop: 36372, Start Num: 117

Candidate Starts for Tinybot\_51:

(Start: 117 @37139 has 107 MA's), (Start: 151 @37124 has 9 MA's), (159, 37070), (164, 37034), (167, 37013), (197, 36818), (232, 36629), (234, 36623), (249, 36527), (251, 36521),

Gene: TipsytheTRex\_52 Start: 36968, Stop: 36198, Start Num: 148

Candidate Starts for TipsytheTRex\_52:

(26, 37334), (99, 37073), (Start: 148 @36968 has 548 MA's), (Start: 157 @36908 has 2 MA's), (164, 36863), (167, 36842), (186, 36713), (210, 36581), (214, 36560), (222, 36512), (232, 36455), (234, 36449), (235, 36431), (246, 36371), (249, 36353), (251, 36347), (263, 36281), (277, 36203),

Gene: TiroTheta9\_52 Start: 37106, Stop: 36339, Start Num: 117

Candidate Starts for TiroTheta9\_52:

(Start: 117 @37106 has 107 MA's), (Start: 151 @37091 has 9 MA's), (159, 37037), (164, 37001), (167, 36980), (197, 36785), (232, 36596), (234, 36590), (249, 36494), (251, 36488),

Gene: Toaka\_56 Start: 37470, Stop: 36700, Start Num: 148

Candidate Starts for Toaka\_56:

(Start: 148 @37470 has 548 MA's), (159, 37401), (167, 37344), (214, 37062), (228, 36975), (233, 36954), (234, 36951), (246, 36873), (249, 36855), (251, 36849),

Gene: Todacoro\_54 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for Todacoro\_54:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: TomSawyer\_69 Start: 51911, Stop: 52672, Start Num: 144

Candidate Starts for TomSawyer\_69:

(133, 51881), (134, 51884), (Start: 144 @51911 has 59 MA's), (150, 51923), (156, 51974), (Start: 157 @51977 has 2 MA's), (161, 51995), (192, 52211), (209, 52301), (224, 52394), (235, 52451), (248, 52517), (254, 52535),

Gene: Tomas\_73 Start: 54632, Stop: 55393, Start Num: 144

Candidate Starts for Tomas\_73:

(Start: 144 @54632 has 59 MA's), (150, 54644), (Start: 151 @54653 has 9 MA's), (156, 54695), (158, 54704), (164, 54743), (198, 54965), (224, 55115), (235, 55172), (248, 55238), (254, 55256),

Gene: Tomathan\_58 Start: 37601, Stop: 36834, Start Num: 148

Candidate Starts for Tomathan\_58:

(Start: 148 @37601 has 548 MA's), (159, 37532), (167, 37475), (184, 37361), (197, 37280), (206, 37241), (208, 37220), (210, 37214), (214, 37193), (222, 37145), (227, 37109), (232, 37088), (243, 37019), (246, 37007), (249, 36989), (251, 36983), (262, 36923), (277, 36839),

Gene: ToneTone\_55 Start: 36592, Stop: 35822, Start Num: 148

Candidate Starts for ToneTone\_55:

(Start: 129 @36637 has 1 MA's), (Start: 148 @36592 has 548 MA's), (156, 36535), (160, 36520), (167, 36466), (170, 36409), (173, 36406), (221, 36142), (232, 36079), (234, 36073), (249, 35977), (251, 35971), (269, 35875), (271, 35866),

Gene: Topanga\_51 Start: 37015, Stop: 36248, Start Num: 148

Candidate Starts for Topanga\_51:

(79, 37096), (Start: 148 @37015 has 548 MA's), (Start: 157 @36955 has 2 MA's), (164, 36910), (167, 36889), (173, 36829), (197, 36694), (232, 36505), (234, 36499), (246, 36421), (249, 36403), (251, 36397),

Gene: Topgun\_51 Start: 37313, Stop: 36546, Start Num: 148

Candidate Starts for Topgun\_51:

(Start: 148 @37313 has 548 MA's), (152, 37295), (154, 37283), (167, 37187), (188, 37055), (200, 36986), (205, 36959), (208, 36935), (219, 36875), (234, 36797), (237, 36770), (241, 36740), (242, 36737), (248, 36704), (249, 36701), (255, 36671),

Gene: ToriToki\_69 Start: 35373, Stop: 36149, Start Num: 139

Candidate Starts for ToriToki\_69:

(Start: 139 @35373 has 8 MA's), (142, 35379), (Start: 147 @35385 has 12 MA's), (159, 35457), (161, 35466), (179, 35604), (194, 35688), (208, 35766), (217, 35814), (233, 35904), (237, 35934), (241, 35964), (246, 35982), (248, 35997), (249, 36000), (254, 36024), (257, 36039), (258, 36048), (259, 36051), (266, 36087), (269, 36102), (270, 36108), (271, 36111),

Gene: Tote\_47 Start: 34196, Stop: 33429, Start Num: 148

Candidate Starts for Tote\_47:

(Start: 148 @34196 has 548 MA's), (155, 34160), (167, 34070), (188, 33938), (200, 33869), (205, 33842), (219, 33758), (232, 33683), (234, 33677), (249, 33584), (259, 33533), (263, 33512),

Gene: Traft412\_54 Start: 38653, Stop: 37886, Start Num: 148

Candidate Starts for Traft412\_54:

(94, 38776), (Start: 148 @38653 has 548 MA's), (Start: 157 @38593 has 2 MA's), (164, 38548), (173, 38467), (181, 38431), (188, 38392), (204, 38302), (208, 38275), (219, 38215), (221, 38206), (232, 38143), (241, 38080), (246, 38059), (249, 38041), (251, 38035), (259, 37990), (261, 37978),

Gene: Treat\_69 Start: 35267, Stop: 36031, Start Num: 147

Candidate Starts for Treat\_69:

(Start: 139 @35255 has 8 MA's), (142, 35261), (Start: 147 @35267 has 12 MA's), (159, 35339), (161, 35348), (179, 35486), (194, 35570), (208, 35648), (217, 35696), (233, 35786), (237, 35816), (241, 35846), (246, 35864), (249, 35882), (254, 35906), (257, 35921), (258, 35930), (259, 35933), (266, 35969), (269, 35984), (270, 35990), (271, 35993),

Gene: Treddle\_52 Start: 38407, Stop: 37640, Start Num: 148

Candidate Starts for Treddle\_52:

(Start: 148 @38407 has 548 MA's), (155, 38371), (Start: 157 @38347 has 2 MA's), (164, 38302), (173, 38221), (181, 38185), (188, 38146), (204, 38056), (208, 38029), (219, 37969), (221, 37960), (232, 37897), (241, 37834), (246, 37813), (249, 37795), (251, 37789), (259, 37744), (261, 37732),

Gene: Tribute\_67 Start: 52555, Stop: 53310, Start Num: 144

Candidate Starts for Tribute\_67:

(Start: 144 @52555 has 59 MA's), (150, 52564), (156, 52615), (161, 52636), (162, 52639), (192, 52852), (202, 52897), (207, 52924), (220, 53005), (231, 53062), (248, 53158),

Gene: Trike\_51 Start: 36260, Stop: 35493, Start Num: 148

Candidate Starts for Trike\_51:

(79, 36314), (Start: 148 @36260 has 548 MA's), (164, 36155), (167, 36134), (173, 36074), (184, 36020), (197, 35939), (234, 35744), (246, 35666), (249, 35648), (251, 35642),

Gene: Trina\_90 Start: 61235, Stop: 62044, Start Num: 144

Candidate Starts for Trina\_90:

(Start: 144 @61235 has 59 MA's), (Start: 151 @61256 has 9 MA's), (Start: 157 @61301 has 2 MA's), (162, 61322), (165, 61355), (183, 61514), (196, 61589), (202, 61610), (213, 61673), (244, 61856), (248, 61880), (254, 61904), (260, 61943), (265, 61967), (273, 62018),

Gene: Trixie\_54 Start: 37802, Stop: 37032, Start Num: 148

Candidate Starts for Trixie\_54:

(57, 37880), (Start: 148 @37802 has 548 MA's), (167, 37676), (173, 37616), (221, 37352), (232, 37289), (233, 37286), (234, 37283), (236, 37259), (249, 37187), (251, 37181),

Gene: Trooper\_57 Start: 38094, Stop: 37324, Start Num: 148

Candidate Starts for Trooper\_57:

(23, 38433), (Start: 148 @38094 has 548 MA's), (167, 37968), (173, 37908), (184, 37854), (188, 37833), (210, 37707), (221, 37644), (232, 37581), (236, 37551), (249, 37479), (251, 37473),

Gene: Trouble\_54 Start: 39144, Stop: 38377, Start Num: 148

Candidate Starts for Trouble\_54:

(Start: 148 @39144 has 548 MA's), (154, 39114), (167, 39018), (188, 38886), (200, 38817), (205, 38790), (219, 38706), (234, 38628), (237, 38601), (241, 38571), (242, 38568), (248, 38535), (249, 38532), (255, 38502),

Gene: TroyPia\_53 Start: 37110, Stop: 36343, Start Num: 117

Candidate Starts for TroyPia\_53:

(Start: 117 @37110 has 107 MA's), (Start: 151 @37095 has 9 MA's), (159, 37041), (164, 37005), (167, 36984), (232, 36600), (234, 36594), (249, 36498), (251, 36492),

Gene: Tubs\_56 Start: 37681, Stop: 36911, Start Num: 148

Candidate Starts for Tubs\_56:

(Start: 148 @37681 has 548 MA's), (159, 37612), (167, 37555), (188, 37420), (198, 37357), (206, 37321), (210, 37294), (222, 37225), (228, 37186), (229, 37180), (233, 37165), (234, 37162), (246, 37084), (249, 37066), (251, 37060), (272, 36940),

Gene: Tucker\_58 Start: 36761, Stop: 35991, Start Num: 148

Candidate Starts for Tucker\_58:

(Start: 129 @36806 has 1 MA's), (Start: 148 @36761 has 548 MA's), (156, 36704), (160, 36689), (167, 36635), (170, 36578), (173, 36575), (221, 36311), (232, 36248), (234, 36242), (249, 36146), (251, 36140), (269, 36044), (271, 36035),

Gene: TunaTartare\_48 Start: 43493, Stop: 44308, Start Num: 149

Candidate Starts for TunaTartare\_48:

(Start: 149 @43493 has 23 MA's), (162, 43568), (164, 43592), (172, 43727), (186, 43814), (194, 43859), (202, 43892), (204, 43904), (239, 44108), (244, 44123), (254, 44171), (272, 44279),

Gene: Turbido\_57 Start: 38127, Stop: 37357, Start Num: 148

Candidate Starts for Turbido\_57:

(23, 38355), (Start: 148 @38127 has 548 MA's), (Start: 157 @38067 has 2 MA's), (167, 38001), (170, 37944), (173, 37941), (206, 37767), (221, 37677), (236, 37584), (246, 37530), (249, 37512), (251, 37506),

Gene: Twister\_51 Start: 36935, Stop: 36168, Start Num: 148

Candidate Starts for Twister\_51:

(79, 37016), (Start: 148 @36935 has 548 MA's), (Start: 157 @36875 has 2 MA's), (164, 36830), (167, 36809), (173, 36749), (197, 36614), (232, 36425), (234, 36419), (246, 36341), (249, 36323), (251, 36317),

Gene: TwoPeat\_51 Start: 37520, Stop: 36753, Start Num: 148

Candidate Starts for TwoPeat\_51:

(Start: 148 @37520 has 548 MA's), (155, 37484), (167, 37394), (188, 37262), (200, 37193), (205, 37166), (219, 37082), (232, 37007), (234, 37001), (249, 36908), (259, 36857), (263, 36836),

Gene: TygerBlood\_52 Start: 37112, Stop: 36345, Start Num: 117

Candidate Starts for TygerBlood\_52:

(Start: 117 @37112 has 107 MA's), (Start: 151 @37097 has 9 MA's), (159, 37043), (164, 37007), (167, 36986), (197, 36791), (232, 36602), (234, 36596), (249, 36500), (251, 36494),

Gene: Ugenie5\_53 Start: 37966, Stop: 37196, Start Num: 148

Candidate Starts for Ugenie5\_53:

(Start: 148 @37966 has 548 MA's), (159, 37897), (167, 37840), (198, 37642), (206, 37606), (210, 37579), (222, 37510), (228, 37471), (229, 37465), (233, 37450), (234, 37447), (246, 37369), (249, 37351), (251, 37345), (272, 37225),

Gene: UhSalsa\_44 Start: 33530, Stop: 32766, Start Num: 148

Candidate Starts for UhSalsa\_44:

(82, 33686), (87, 33662), (111, 33614), (116, 33602), (130, 33572), (Start: 145 @33536 has 36 MA's), (Start: 148 @33530 has 548 MA's), (Start: 157 @33470 has 2 MA's), (164, 33425), (173, 33344), (203, 33185), (204, 33179), (234, 33014), (249, 32921), (251, 32915), (261, 32858), (263, 32849), (268, 32822), (277, 32771),

Gene: Ulysses\_51 Start: 36789, Stop: 36022, Start Num: 117

Candidate Starts for Ulysses\_51:

(Start: 117 @36789 has 107 MA's), (Start: 151 @36774 has 9 MA's), (159, 36720), (164, 36684), (167, 36663), (197, 36468), (232, 36279), (234, 36273), (249, 36177), (251, 36171),

Gene: UnionJack\_50 Start: 35985, Stop: 35215, Start Num: 148

Candidate Starts for UnionJack\_50:

(Start: 148 @35985 has 548 MA's), (164, 35880), (167, 35859), (173, 35799), (193, 35691), (197, 35664), (206, 35628), (234, 35469), (235, 35451), (249, 35373), (251, 35367), (261, 35310), (263, 35301),

Gene: Updawg\_57 Start: 37975, Stop: 37205, Start Num: 148

Candidate Starts for Updawg\_57:

(23, 38197), (Start: 148 @37975 has 548 MA's), (167, 37849), (170, 37792), (173, 37789), (174, 37786), (221, 37525), (232, 37462), (233, 37459), (234, 37456), (236, 37432), (249, 37360), (251, 37354),

Gene: VA6\_57 Start: 38190, Stop: 37420, Start Num: 148

Candidate Starts for VA6\_57:

(7, 38586), (23, 38418), (Start: 148 @38190 has 548 MA's), (Start: 157 @38130 has 2 MA's), (164, 38085), (167, 38064), (170, 38007), (173, 38004), (221, 37740), (233, 37674), (234, 37671), (236, 37647), (249, 37575), (251, 37569), (263, 37503),

Gene: VC3\_59 Start: 37949, Stop: 37182, Start Num: 148

Candidate Starts for VC3\_59:

(Start: 148 @37949 has 548 MA's), (159, 37880), (167, 37823), (184, 37709), (186, 37694), (208, 37568), (210, 37562), (214, 37541), (227, 37457), (232, 37436), (243, 37367), (246, 37355), (249, 37337), (251, 37331),

Gene: Vanisoa\_56 Start: 38599, Stop: 37829, Start Num: 148

Candidate Starts for Vanisoa\_56:

(25, 38962), (78, 38767), (112, 38674), (133, 38632), (Start: 148 @38599 has 548 MA's), (159, 38530), (167, 38473), (228, 38104), (229, 38098), (233, 38083), (234, 38080), (246, 38002), (249, 37984), (251, 37978), (272, 37858),

Gene: Veracruz\_53 Start: 37477, Stop: 36710, Start Num: 148

Candidate Starts for Veracruz\_53:

(79, 37531), (Start: 148 @37477 has 548 MA's), (167, 37351), (173, 37291), (206, 37120), (214, 37072), (234, 36961), (241, 36904), (246, 36883), (249, 36865), (251, 36859), (277, 36715),

Gene: Vix\_58 Start: 37785, Stop: 37018, Start Num: 148

Candidate Starts for Vix\_58:

(Start: 148 @37785 has 548 MA's), (164, 37680), (167, 37659), (173, 37599), (216, 37365), (230, 37284), (232, 37275), (234, 37269), (241, 37212), (246, 37191), (249, 37173), (251, 37167),

Gene: VohminGhazi\_57 Start: 36570, Stop: 35800, Start Num: 148

Candidate Starts for VohminGhazi\_57:

(Start: 129 @36615 has 1 MA's), (Start: 148 @36570 has 548 MA's), (156, 36513), (160, 36498), (164, 36465), (167, 36444), (170, 36387), (173, 36384), (221, 36120), (232, 36057), (234, 36051), (249, 35955), (251, 35949), (269, 35853), (271, 35844),

Gene: Vorvolakos\_66 Start: 34708, Stop: 35472, Start Num: 147

Candidate Starts for Vorvolakos\_66:

(Start: 147 @34708 has 12 MA's), (Start: 151 @34726 has 9 MA's), (181, 34933), (217, 35137), (246, 35305), (249, 35323), (259, 35374), (266, 35410), (270, 35431), (275, 35461),

Gene: WRightOn\_71 Start: 34771, Stop: 35535, Start Num: 147

Candidate Starts for WRightOn\_71:

(Start: 147 @34771 has 12 MA's), (161, 34852), (217, 35200), (246, 35368), (249, 35386), (258, 35434), (259, 35437), (266, 35473), (270, 35494), (271, 35497),

Gene: Waits\_61 Start: 36778, Stop: 36014, Start Num: 148

Candidate Starts for Waits\_61:

(Start: 148 @36778 has 548 MA's), (Start: 157 @36721 has 2 MA's), (184, 36541), (206, 36424), (234, 36265), (246, 36187), (249, 36169), (251, 36163), (262, 36103), (266, 36082),

Gene: Wakanda\_46 Start: 43547, Stop: 44371, Start Num: 146

Candidate Starts for Wakanda\_46:

(126, 43502), (132, 43511), (Start: 146 @43547 has 4 MA's), (161, 43628), (162, 43631), (168, 43685), (173, 43808), (194, 43922), (204, 43967), (237, 44153), (239, 44171), (245, 44189), (265, 44297),

Gene: WalterMcMickey\_51 Start: 36935, Stop: 36168, Start Num: 148

Candidate Starts for WalterMcMickey\_51:

(79, 37016), (Start: 148 @36935 has 548 MA's), (Start: 157 @36875 has 2 MA's), (164, 36830), (167, 36809), (173, 36749), (197, 36614), (232, 36425), (234, 36419), (246, 36341), (249, 36323), (251, 36317),

Gene: Wander\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Wander\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Warpy\_73 Start: 53355, Stop: 54110, Start Num: 144

Candidate Starts for Warpy\_73:

(Start: 144 @53355 has 59 MA's), (150, 53364), (153, 53379), (156, 53415), (161, 53436), (162, 53439), (227, 53847), (232, 53868), (248, 53958), (250, 53964), (271, 54066),

Gene: Watermelon\_52 Start: 37856, Stop: 37089, Start Num: 148

Candidate Starts for Watermelon\_52:

(Start: 148 @37856 has 548 MA's), (Start: 157 @37796 has 2 MA's), (164, 37751), (173, 37670), (181, 37634), (188, 37595), (204, 37505), (208, 37478), (219, 37418), (221, 37409), (232, 37346), (241, 37283), (246, 37262), (249, 37244), (251, 37238), (259, 37193), (261, 37181),

Gene: Watermoore\_69 Start: 53565, Stop: 54320, Start Num: 144

Candidate Starts for Watermoore\_69:

(Start: 144 @53565 has 59 MA's), (150, 53574), (156, 53625), (161, 53646), (162, 53649), (192, 53862), (202, 53907), (207, 53934), (220, 54015), (231, 54072), (248, 54168),

Gene: Watson\_58 Start: 37694, Stop: 36927, Start Num: 148

Candidate Starts for Watson\_58:

(Start: 148 @37694 has 548 MA's), (164, 37589), (167, 37568), (173, 37508), (230, 37193), (232, 37184), (234, 37178), (241, 37121), (246, 37100), (249, 37082), (251, 37076),

Gene: Weasels2\_89 Start: 54534, Stop: 55328, Start Num: 144

Candidate Starts for Weasels2\_89:

(Start: 144 @54534 has 59 MA's), (Start: 151 @54555 has 9 MA's), (162, 54621), (171, 54738), (174, 54765), (183, 54813), (196, 54888), (254, 55191), (270, 55278), (273, 55302),

Gene: WeiHuaDA\_58 Start: 38607, Stop: 37837, Start Num: 148

Candidate Starts for WeiHuaDA\_58:

(Start: 148 @38607 has 548 MA's), (159, 38538), (167, 38481), (173, 38421), (221, 38157), (232, 38094), (233, 38091), (234, 38088), (236, 38064), (249, 37992), (251, 37986),

Gene: Whabigail7\_57 Start: 38112, Stop: 37342, Start Num: 148

Candidate Starts for Whabigail7\_57:

(23, 38340), (Start: 148 @38112 has 548 MA's), (Start: 157 @38052 has 2 MA's), (167, 37986), (170, 37929), (173, 37926), (206, 37752), (221, 37662), (236, 37569), (246, 37515), (249, 37497), (251, 37491),

Gene: Wheeler\_52 Start: 37900, Stop: 37133, Start Num: 148

Candidate Starts for Wheeler\_52:

(Start: 148 @37900 has 548 MA's), (Start: 157 @37840 has 2 MA's), (164, 37795), (173, 37714), (181, 37678), (188, 37639), (204, 37549), (208, 37522), (219, 37462), (221, 37453), (232, 37390), (241, 37327), (246, 37306), (249, 37288), (251, 37282), (259, 37237), (261, 37225),

Gene: WideWale\_57 Start: 37975, Stop: 37205, Start Num: 148

Candidate Starts for WideWale\_57:

(23, 38197), (Start: 148 @37975 has 548 MA's), (167, 37849), (170, 37792), (173, 37789), (174, 37786), (221, 37525), (232, 37462), (233, 37459), (234, 37456), (236, 37432), (249, 37360), (251, 37354),

Gene: Wiks\_57 Start: 36663, Stop: 35893, Start Num: 148

Candidate Starts for Wiks\_57:

(Start: 129 @36708 has 1 MA's), (Start: 148 @36663 has 548 MA's), (156, 36606), (160, 36591), (167, 36537), (170, 36480), (173, 36477), (221, 36213), (232, 36150), (234, 36144), (249, 36048), (251, 36042), (269, 35946), (271, 35937),

Gene: Wilbur\_52 Start: 37109, Stop: 36342, Start Num: 117

Candidate Starts for Wilbur\_52:

(Start: 117 @37109 has 107 MA's), (Start: 151 @37094 has 9 MA's), (159, 37040), (164, 37004), (167, 36983), (197, 36788), (232, 36599), (234, 36593), (249, 36497), (251, 36491),

Gene: Wile\_51 Start: 37092, Stop: 36325, Start Num: 148

Candidate Starts for Wile\_51:

(Start: 148 @37092 has 548 MA's), (Start: 151 @37077 has 9 MA's), (159, 37023), (167, 36966), (173, 36906), (234, 36576), (249, 36480), (251, 36474), (262, 36414),

Gene: Wilkins\_51 Start: 37243, Stop: 36476, Start Num: 148

Candidate Starts for Wilkins\_51:

(Start: 148 @37243 has 548 MA's), (152, 37225), (154, 37213), (167, 37117), (188, 36985), (200, 36916), (205, 36889), (208, 36865), (219, 36805), (234, 36727), (237, 36700), (241, 36670), (242, 36667), (248, 36634), (249, 36631), (255, 36601),

Gene: Wipeout\_69 Start: 52662, Stop: 53423, Start Num: 144

Candidate Starts for Wipeout\_69:

(133, 52632), (134, 52635), (Start: 144 @52662 has 59 MA's), (150, 52674), (156, 52725), (Start: 157 @52728 has 2 MA's), (161, 52746), (192, 52962), (209, 53052), (224, 53145), (235, 53202), (248, 53268), (254, 53286),

Gene: Wizard007\_52 Start: 37117, Stop: 36350, Start Num: 117

Candidate Starts for Wizard007\_52:

(Start: 117 @37117 has 107 MA's), (Start: 151 @37102 has 9 MA's), (159, 37048), (164, 37012), (167, 36991), (197, 36796), (232, 36607), (234, 36601), (249, 36505), (251, 36499),

Gene: Wofford\_70 Start: 53347, Stop: 54108, Start Num: 144

Candidate Starts for Wofford\_70:

(134, 53320), (Start: 144 @53347 has 59 MA's), (150, 53359), (156, 53410), (Start: 157 @53413 has 2 MA's), (161, 53431), (218, 53788), (235, 53887), (236, 53893), (248, 53953), (254, 53971),

Gene: Wooldri\_60 Start: 37614, Stop: 36847, Start Num: 148

Candidate Starts for Wooldri\_60:

(Start: 148 @37614 has 548 MA's), (164, 37509), (167, 37488), (173, 37428), (216, 37194), (230, 37113), (232, 37104), (234, 37098), (241, 37041), (246, 37020), (249, 37002), (251, 36996),

Gene: WunderPhul\_58 Start: 36661, Stop: 35891, Start Num: 148

Candidate Starts for WunderPhul\_58:

(Start: 129 @36706 has 1 MA's), (Start: 148 @36661 has 548 MA's), (156, 36604), (160, 36589), (167, 36535), (170, 36478), (173, 36475), (221, 36211), (232, 36148), (234, 36142), (249, 36046), (251, 36040), (269, 35944), (271, 35935),

Gene: Xena\_50 Start: 37058, Stop: 36291, Start Num: 148

Candidate Starts for Xena\_50:

(Start: 148 @37058 has 548 MA's), (Start: 151 @37043 has 9 MA's), (159, 36989), (167, 36932), (173, 36872), (234, 36542), (249, 36446), (251, 36440), (262, 36380),

Gene: XianYue\_55 Start: 37471, Stop: 36701, Start Num: 148

Candidate Starts for XianYue\_55:

(23, 37696), (Start: 148 @37471 has 548 MA's), (167, 37345), (173, 37285), (221, 37021), (233, 36955), (234, 36952), (236, 36928), (244, 36883), (249, 36856), (251, 36850), (261, 36793), (266, 36769),

Gene: Yaboi\_71 Start: 52262, Stop: 53023, Start Num: 144

Candidate Starts for Yaboi\_71:

(133, 52232), (134, 52235), (Start: 144 @52262 has 59 MA's), (150, 52274), (156, 52325), (Start: 157 @52328 has 2 MA's), (158, 52334), (161, 52346), (176, 52472), (235, 52802), (248, 52868), (254, 52886), (269, 52970),

Gene: Yecey3\_57 Start: 37378, Stop: 36608, Start Num: 148

Candidate Starts for Yecey3\_57:

(67, 37591), (79, 37543), (108, 37459), (133, 37411), (Start: 148 @37378 has 548 MA's), (159, 37309), (164, 37273), (167, 37252), (206, 37018), (228, 36883), (233, 36862), (234, 36859), (246, 36781), (249, 36763), (251, 36757),

Gene: YoSam321\_52 Start: 37106, Stop: 36339, Start Num: 117

Candidate Starts for YoSam321\_52:

(Start: 117 @37106 has 107 MA's), (Start: 151 @37091 has 9 MA's), (159, 37037), (164, 37001), (167, 36980), (197, 36785), (232, 36596), (234, 36590), (249, 36494), (251, 36488),

Gene: Yogi\_43 Start: 33577, Stop: 32807, Start Num: 145

Candidate Starts for Yogi\_43:

(82, 33727), (87, 33703), (96, 33682), (111, 33655), (130, 33613), (Start: 145 @33577 has 36 MA's), (Start: 148 @33571 has 548 MA's), (Start: 157 @33511 has 2 MA's), (173, 33385), (203, 33226), (204, 33220), (234, 33055), (249, 32962), (251, 32956), (261, 32899), (263, 32890), (268, 32863), (277, 32812),

Gene: Yokurt\_58 Start: 36663, Stop: 35893, Start Num: 148

Candidate Starts for Yokurt\_58:

(Start: 129 @36708 has 1 MA's), (Start: 148 @36663 has 548 MA's), (156, 36606), (160, 36591), (167, 36537), (170, 36480), (173, 36477), (221, 36213), (232, 36150), (234, 36144), (249, 36048), (251, 36042), (269, 35946), (271, 35937),

Gene: Yoncess\_43 Start: 33351, Stop: 32587, Start Num: 148

Candidate Starts for Yoncess\_43:

(82, 33507), (87, 33483), (96, 33462), (111, 33435), (130, 33393), (Start: 145 @33357 has 36 MA's), (Start: 148 @33351 has 548 MA's), (Start: 157 @33291 has 2 MA's), (173, 33165), (203, 33006), (204, 33000), (234, 32835), (249, 32742), (251, 32736), (261, 32679), (263, 32670), (268, 32643), (277, 32592),

Gene: Zaka\_58 Start: 36663, Stop: 35893, Start Num: 148

Candidate Starts for Zaka\_58:

(Start: 129 @36708 has 1 MA's), (Start: 148 @36663 has 548 MA's), (156, 36606), (160, 36591), (167, 36537), (170, 36480), (173, 36477), (221, 36213), (232, 36150), (234, 36144), (249, 36048), (251, 36042), (269, 35946), (271, 35937),

Gene: Zeigle\_67 Start: 34615, Stop: 35379, Start Num: 147

Candidate Starts for Zeigle\_67:

(Start: 147 @34615 has 12 MA's), (161, 34696), (217, 35044), (246, 35212), (249, 35230), (258, 35278), (259, 35281), (266, 35317), (270, 35338), (271, 35341),

Gene: Zephyr\_51 Start: 37349, Stop: 36582, Start Num: 148

Candidate Starts for Zephyr\_51:

(Start: 148 @37349 has 548 MA's), (155, 37313), (Start: 157 @37289 has 2 MA's), (164, 37244), (173, 37163), (181, 37127), (188, 37088), (204, 36998), (208, 36971), (219, 36911), (221, 36902), (232, 36839), (246, 36755), (249, 36737), (251, 36731), (259, 36686), (261, 36674),

Gene: Zetzy\_57 Start: 37265, Stop: 36498, Start Num: 148

Candidate Starts for Zetzy\_57:

(Start: 148 @37265 has 548 MA's), (164, 37160), (167, 37139), (173, 37079), (216, 36845), (230, 36764), (232, 36755), (234, 36749), (241, 36692), (246, 36671), (249, 36653), (251, 36647),

Gene: Zimmer\_53 Start: 38421, Stop: 37654, Start Num: 148

Candidate Starts for Zimmer\_53:

(105, 38502), (Start: 148 @38421 has 548 MA's), (160, 38349), (163, 38337), (164, 38316), (167, 38295), (186, 38166), (206, 38061), (227, 37929), (228, 37926), (232, 37908), (243, 37839), (246, 37827), (249, 37809), (251, 37803),

Gene: Zolita\_50 Start: 37203, Stop: 36433, Start Num: 145

Candidate Starts for Zolita\_50:

(Start: 145 @37203 has 36 MA's), (164, 37098), (167, 37077), (173, 37017), (193, 36909), (202, 36867), (216, 36783), (234, 36687), (248, 36594), (249, 36591), (251, 36585), (261, 36528),

Gene: ZooBear\_69 Start: 35377, Stop: 36153, Start Num: 139

Candidate Starts for ZooBear\_69:

(Start: 139 @35377 has 8 MA's), (142, 35383), (Start: 147 @35389 has 12 MA's), (159, 35461), (161, 35470), (179, 35608), (194, 35692), (208, 35770), (217, 35818), (233, 35908), (237, 35938), (241, 35968), (246, 35986), (248, 36001), (249, 36004), (254, 36028), (257, 36043), (258, 36052), (259, 36055), (266, 36091), (269, 36106), (270, 36112), (271, 36115),

Gene: Zulu\_59 Start: 37041, Stop: 36271, Start Num: 148

Candidate Starts for Zulu\_59:

(Start: 129 @37086 has 1 MA's), (Start: 148 @37041 has 548 MA's), (156, 36984), (160, 36969), (167, 36915), (170, 36858), (173, 36855), (221, 36591), (232, 36528), (234, 36522), (249, 36426), (251, 36420), (269, 36324), (271, 36315),