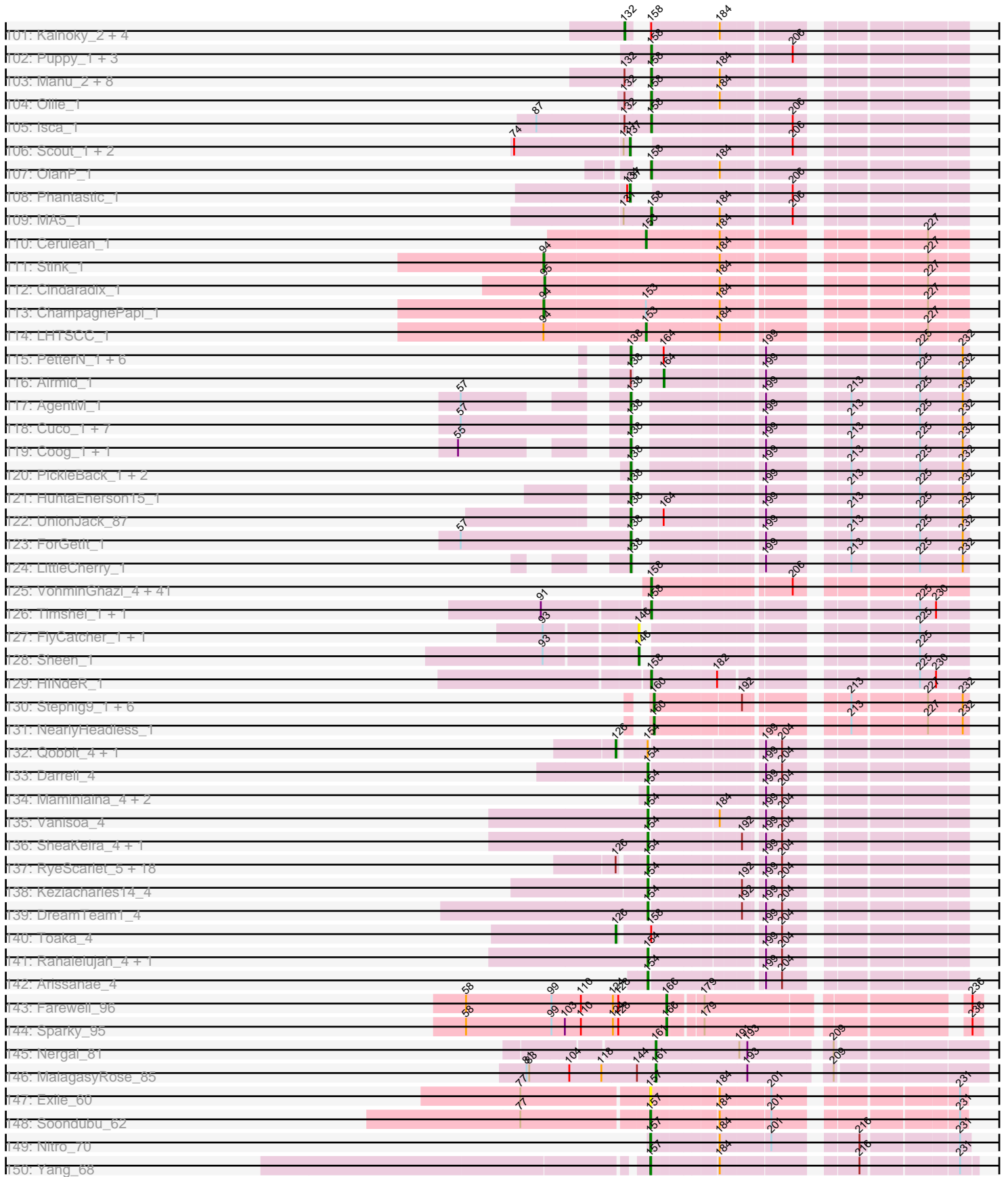




Pham 202529

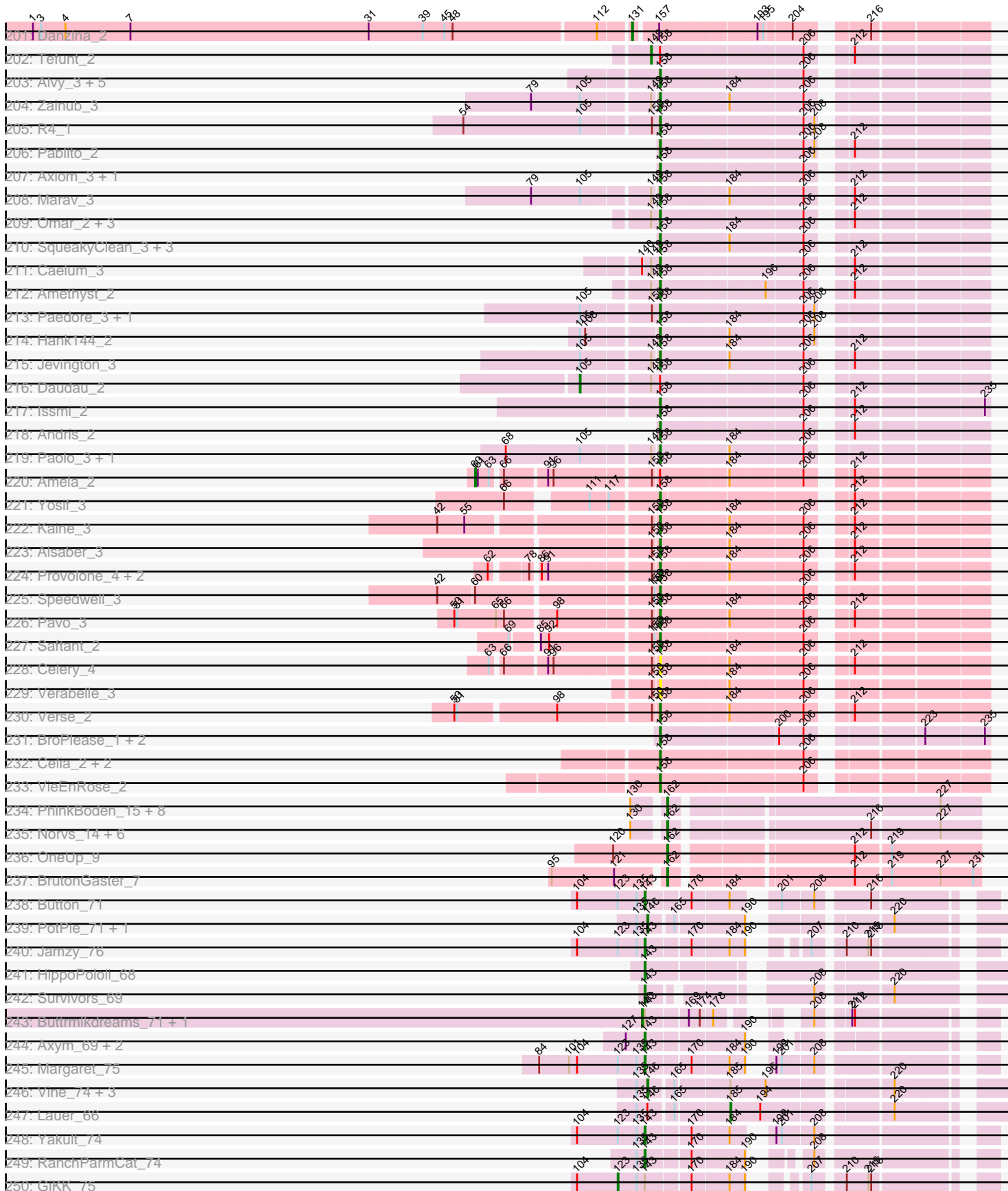


Pham 202529



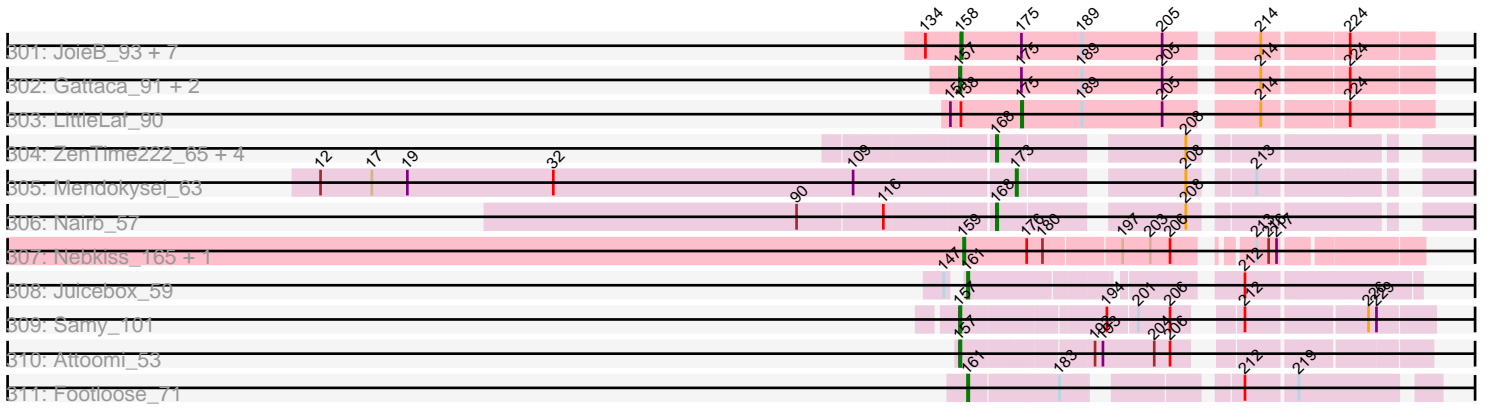


# Pham 202529





Pham 202529



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 202529 Report

This analysis was run 01/18/25 on database version 583.

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

Pham number 202529 has 954 members, 48 are drafts.

Phages represented in each track:

- Track 1 : Pita2\_2, ConceptII\_2, PSullivan\_2, Bircsak\_2, PherrisBueller\_2, STLscum\_2, PacerPaul\_2, Rohr\_2, Altman\_3, Pepe\_2, SkiPole\_2, Gompeii16\_2, Lopton\_2, BPBiebs31\_2, Kanely\_3, Tote\_2, TwoPeat\_2, KBG\_2, Target\_2, Swole\_2, Jasper\_2, Francis47\_2, Dreamboat\_2, Homines\_2, Wheeler\_2, JuliaChild\_2
- Track 2 : Zephyr\_1, Paphu\_1, Fascinus\_1, Solon\_1, Rutherford\_1, Bones\_1, Ciao\_1, ShortQueendom\_1, Mkhusei\_1, Topgun\_1, Michley\_1, Maroc7\_1, Ashballer\_1, Snazzy\_1, Parliament\_1, DrFeelGood\_1, StewieG\_1, Nerujay\_1, CactusRose\_1, Adahisdi\_1, Crispicous1\_1, Kugel\_1, Seanderson\_1, Cueylyss\_1, Teodoridan\_1, Ohno789\_1, Sunshine924\_1, Bigfoot\_1, Wilkins\_1, Applejack\_1, Killigrew\_1, SpikeBT\_1, Zeeculate\_1, Tripl3t\_1, Squee\_1
- Track 3 : Euphoria\_2, Alvin\_3, Seabiscuit\_2, Abbyshoes\_2, Lockley\_2, Kenmech\_2, Briton15\_2, DD5\_2, McGuire\_2, Dussy\_2, BeesKnees\_2
- Track 4 : Jerm2\_2, MetalQZJ\_2, Greg\_2, Barriga\_2, RidgeCB\_2, GrecoEtereo\_2, Fushigi\_2, Sagefire\_2, Chanagan\_2, Violet\_2, Corvo\_2, Bethlehem\_2, BigMau\_3, Rufus\_2, Pippin\_2, BillKnuckles\_2, Molly\_2, Slagathor\_2, PascalRango\_2, HermioneGrange\_2, JC27\_2, U2\_2, Buttons\_2, Lamina13\_2, Petp2012\_2, Marchy\_2, Payneful\_2, Thor\_2, BaconJack\_2, Manatee\_2, Licorice\_2, MaryBeth\_2, Treddle\_2, Arlo\_2, Dynamix\_2, Anglerfish\_2, Fajezeel\_2, Hermia\_2, TheloniousMonk\_2, Sibs6\_2, PattyP\_2, Pari\_2, NEHalo\_2, Monet\_2, Norz\_2, Watermelon\_2, Switzer\_2, Rhynn\_1, SarFire\_2, HarryOW\_2, Arcanine\_2, Rubeus\_2, Rajelicia\_2, Edtherson\_2
- Track 5 : Hami1\_1
- Track 6 : KSSJEB\_1
- Track 7 : Blue\_3, Tasp14\_2
- Track 8 : Ajay\_1, Inyanga\_1, Beatrix\_1, Bexan\_1, StrongArm\_1, Smairt\_1, Mule\_1, Aeneas\_1, Zeuska\_1, Perseus\_1, Hope4ever\_1
- Track 9 : Papez\_2
- Track 10 : DreamCatcher\_2, Sanya\_1, Abrogate\_20
- Track 11 : Ringer\_1, IgnatiusPatJac\_1, BluSpix\_1
- Track 12 : Lesedi\_1, Atkinbua\_1, KyMonks1A\_1, Turj99\_1, Kykar\_1, Magnar\_1, Eyeball\_1, Bxb1\_1, Mryolo\_1, Paraselene\_1, QTRlifeCrisis\_1
- Track 13 : Alsfro\_2, Carlyle\_2
- Track 14 : Traft412\_3, Dexes\_2, Pelly\_2, Acme\_2
- Track 15 : Burton\_2, MPlant7149\_2, Bob3\_2, Museum\_3, Nhonho\_2



- Track 16 : Naira\_1, Bruns\_1, Fenn\_1, Moose\_1, PinkPlastic\_1, SwissCheese\_1, Forsytheast\_1
- Track 17 : Gandalf20\_2, Jorgensen\_2, Espresso\_2
- Track 18 : BigPaolini\_1, Peterson\_1, Doom\_1
- Track 19 : Marsha\_2
- Track 20 : Dulcie\_1, ProMouse\_1
- Track 21 : Scowl\_2, GageAP\_2
- Track 22 : Makemake\_2
- Track 23 : MrGordo\_1
- Track 24 : Ruotula\_2
- Track 25 : Graduation\_1
- Track 26 : Smeagol\_1
- Track 27 : PhrostyMug\_1
- Track 28 : Big3\_1
- Track 29 : ILeeKay\_1
- Track 30 : Magnito\_1, Pinto\_1
- Track 31 : Marcell\_2, Petruccio\_2, FrogHopper\_2, Gyzlar\_2
- Track 32 : Gwendoluna\_1, Sumter\_1
- Track 33 : Sorpresa\_1
- Track 34 : Raid\_3
- Track 35 : LilBib\_1
- Track 36 : Trouble\_1
- Track 37 : AFIS\_1
- Track 38 : Niza\_3
- Track 39 : Ichabod\_2
- Track 40 : JackSparrow\_1
- Track 41 : Marge\_1
- Track 42 : Oogway\_1
- Track 43 : Drake94\_1, Severus\_1, KittenMittens\_1, Poompha\_1
- Track 44 : Eaglepride\_1
- Track 45 : Goose\_1, Chupacabra\_1
- Track 46 : WalterMcMickey\_1, Twister\_1, Edison31\_1, Topanga\_1
- Track 47 : OKCentral2016\_1
- Track 48 : RhynO\_1
- Track 49 : PeaceMeal1\_1
- Track 50 : Kristoff\_2
- Track 51 : MaCh\_4, Sham4\_4, Flaverint\_4, Fibonacci\_4, Munch\_4, Lucivia\_4, Joselito\_4, Gilberta\_4, Hutc2\_4, TinyTimmy\_4, Mulciber\_4, Aneem\_4, Bud\_4, Bowtie\_4, Insomnia\_4, Salz\_4, Jabith\_4, Timothy\_4, Snape\_4
- Track 52 : Ebony\_4, Orange\_4, Bachome\_4
- Track 53 : Refuge\_4
- Track 54 : Zimmer\_4
- Track 55 : Steamy\_4
- Track 56 : DarthPhader\_4
- Track 57 : Pharaoh\_4
- Track 58 : SororFago\_4
- Track 59 : Luchador\_4
- Track 60 : Gail\_4
- Track 61 : Jeeves\_4
- Track 62 : Waits\_4, Epsocamisio\_4, Switzerland\_4, Rosalind\_4, MinecraftSteve\_5, DekHockey33\_4, ShayRa\_5, JSwag\_4, KatherineG\_4, Nebulosus\_4, Boohoo\_4, LastResort\_4, Battleship\_5, ReMo\_4, Looper\_4, Anaysia\_4
- Track 63 : Nedarya\_4

- Track 64 : Strosahl\_4, Remus\_4, Soups\_4
- Track 65 : EagleEye\_4, Lucyedi\_4, PainterBoy\_4
- Track 66 : 40AC\_5
- Track 67 : MyraDee\_1
- Track 68 : Kimona\_1
- Track 69 : NicoleTera\_4, Chargerpower\_5, EZMoney23\_4, Trixie\_4
- Track 70 : Journey13\_4
- Track 71 : Adzzy\_4
- Track 72 : AnnaL29\_4, CRB1\_4, Loser\_4, RedRock\_4
- Track 73 : Buggy\_5, Agape74\_5, FiringLine\_5, Dignity\_5, SemperFi\_5, Smeagan\_5, Deloris\_4, EvilGenius\_5, SnapTap\_5, Jerm\_5, SweetiePie\_5, LadyBird\_4, Georgie2\_5, LilTurb\_5, AN3\_4, KingCyrus\_5, ChipMunk\_5, Crucio\_5, BengiVuitton\_4, AbbyPaige\_5, Power\_5, QueenBeesly\_5, VA6\_4, JoshKayV\_5, Leviathan\_5, Whabigail7\_5, Turbido\_5
- Track 74 : Flare16\_5, Sknot\_6, Drake55\_5, WideWale\_5, Centaur\_5, MiculUcigas\_5, HarryHoudini\_5, Equemioh13\_5, Piro94\_4, NaSiaTalie\_5, Baehexic\_5, Updawg\_5
- Track 75 : XianYue\_4
- Track 76 : DudeLittle\_5, Anselm\_5, Dalmatian\_5, Heffalump\_5, QueenB2\_5, Fameo\_5, Retro23\_5
- Track 77 : Leogania\_4, BiancaTri92\_4
- Track 78 : Lokk\_5, Rachaly\_5, BobSwaget\_5
- Track 79 : Changeling\_4, 20ES\_4, Anthony\_1, ArcherNM\_4, First\_004, Miko\_5
- Track 80 : StarStuff\_4, Tomathan\_4, C3\_04, AN9\_4, D32\_4, Travvers\_4, VC3\_4, D29\_4, Kerberos\_4, DBQu4n\_4, ANI8\_4, Naji\_4, Duplo\_4, Pomar16\_4
- Track 81 : Ph8s\_4
- Track 82 : TarsusIV\_5
- Track 83 : Herbertwm\_1
- Track 84 : Jaan\_4, IronMan\_4, Landor\_4, Phaded\_4, Bactobuster\_4
- Track 85 : Larenn\_5, Malec\_5
- Track 86 : Colin\_5, WeiHuaDA\_5
- Track 87 : Che12\_4
- Track 88 : Kalpine\_4
- Track 89 : GaugeLDP\_4, Trooper\_5, BabyBack\_4, Acolyte\_4, Yecey3\_4
- Track 90 : Benvolio\_5, Echild\_5
- Track 91 : Jsquared\_4, TipsytheTRex\_4, Serenity\_4, L5\_4
- Track 92 : MissWhite\_4
- Track 93 : Pukovnik\_4, Odin\_3, Superchunk\_4
- Track 94 : Iwokeuplikedis\_5
- Track 95 : Grub\_1, Grif\_1, Phoxy\_1, Louie6\_1, Tiffany\_1, Beauxregard13\_1, Spike509\_1, Bxz2\_1, Vix\_1, Lilith\_1, Microwolf\_1, Aglet\_1, Fernando\_1, Grum1\_1, Stagni\_1, StepMih\_1, Mainiac\_1, MarQuardt\_1, EpicPhail\_1, LarryKay\_1, Sabinator\_1, PGHhamlin\_3, GtownJaz\_1, Penny1\_1, DaHudson\_1, Watson\_1, Malinsilva\_3, JHC117\_1, KADY\_2, AugsMagnumOpus\_3, Methuselah\_1, Anubis\_3, Farber\_1, Hercules11\_1
- Track 96 : Todacoro\_1, Pocahontas\_1, ResDef\_1, Caviar\_1, Hookmount\_1, Noella\_1, Lambert1\_1, Margo\_1
- Track 97 : GingkoMaracino\_1
- Track 98 : BabyRay\_1
- Track 99 : JF4\_1, MK4\_1, JF2\_1
- Track 100 : Dieselweasel\_1, HashRod\_2, Soshari\_3, JenCasNa\_1, SoilDragon\_1, Cullens\_1, PotatoSplit\_2, MoneyMay\_1, Sabia\_1, LBerry\_1, Phoebe\_1, MadMarie\_1, Colbster\_1, Daishi\_1, BreSam8\_1, AgronaGT15\_1, Taurus\_1, Zetty\_1, Jobu08\_1,

P28Green\_1, LugYA\_3, Pembroke\_1, Marie\_1, Rummer\_1, Wooldri\_3  
• Track 101 : Kalnok\_2, Pawn\_1, Gemma\_1, PurpleHaze\_1, Heliosoles\_1  
• Track 102 : Puppy\_1, TNguyen7\_1, Pistachio\_1, BlueBird\_1  
• Track 103 : Manu\_2, Groupthink\_2, Kalb97\_2, JeppNRM\_2, Reba\_2, HaveUMetTed\_2, Marius\_2, Phranny\_2, PhishRPhriends\_1  
• Track 104 : Ollie\_1  
• Track 105 : Isca\_1  
• Track 106 : Scout\_1, Fred313\_1, Kachowdy\_1  
• Track 107 : OlanP\_1  
• Track 108 : Phantastic\_1  
• Track 109 : MA5\_1  
• Track 110 : Cerulean\_1  
• Track 111 : Stink\_1  
• Track 112 : Cindaradix\_1  
• Track 113 : ChampagnePapi\_1  
• Track 114 : LHTSCC\_1  
• Track 115 : PetterN\_1, Benedict\_1, EITiger69\_1, Jabiru\_1, Chadwick\_1, Scorpia\_1, Naca\_1  
• Track 116 : Airmid\_1  
• Track 117 : AgentM\_1  
• Track 118 : Cuco\_1, Discoknowium\_1, Lev2\_1, Milcery\_1, Aragog\_1, Tiger\_1, Phlorence\_1, Archetta\_1  
• Track 119 : Coog\_1, Midas2\_1  
• Track 120 : PickleBack\_1, Jovo\_1, Conspiracy\_1  
• Track 121 : HuhtaEnerson15\_1  
• Track 122 : UnionJack\_87  
• Track 123 : ForGetIt\_1  
• Track 124 : LittleCherry\_1  
• Track 125 : VohminGhazi\_4, Dorothea\_4, Anon\_4, Indra\_4, DaVinci\_4, CloudWang3\_4, EricB\_4, Artemis2UCLA\_4, Gladiator\_4, SuperCallie99\_4, BABullseye\_4, Lilbunny\_4, JewelBug\_4, Wiks\_4, Kipper29\_4, Yokurt\_4, Pmask\_4, Cookiedough\_4, Jeffabunny\_4, Zulu\_4, Tucker\_4, McFly\_4, SuperAwesome\_4, Rifter\_4, Koko\_4, Gruunaga\_4, GreedyLawyer\_4, Jordennis\_4, Priamo\_4, WunderPhul\_4, SmellyB\_4, Roksolana\_4, Hexamo\_4, Zaka\_4, Hammer\_4, Blue7\_4, Kazan\_4, Newrala\_4, Isiphiwo\_4, Hoot\_4, Blinn1\_4, Neeharika16\_4  
• Track 126 : Timshel\_1, DroogsArmy\_1  
• Track 127 : FlyCatcher\_1, Toro\_1  
• Track 128 : Sheen\_1  
• Track 129 : HINdeR\_1  
• Track 130 : Stephig9\_1, Dixon\_1, Phillis\_1, Smeadley\_1, Saintus\_1, Astro\_1, Roary\_1  
• Track 131 : NearlyHeadless\_1  
• Track 132 : Qobbit\_4, ExplosioNervosa\_4  
• Track 133 : Darrell\_4  
• Track 134 : Maminiaina\_4, LoneWolf\_4, Elephantoon\_4  
• Track 135 : Vanisoa\_4  
• Track 136 : SheaKeira\_4, Charm\_4  
• Track 137 : RyeScarlet\_5, Priya\_4, Conquerage\_4, Phaeder\_4, HortumSL17\_4, Tubs\_4, Eidsmoe\_4, Aliter\_4, Scherzo\_4, Alma\_4, Pioneer\_4, Spouty\_4, EmyBug\_4, Myxus\_4, Catalina\_4, Beemo\_4, PackMan\_4, Phonnegut\_4, Fayely\_4  
• Track 138 : Keziacharles14\_4  
• Track 139 : DreamTeam1\_4  
• Track 140 : Toaka\_4

- Track 141 : Rahalelujah\_4, BogosyJay\_4
- Track 142 : Arissanae\_4
- Track 143 : Farewell\_96
- Track 144 : Sparky\_95
- Track 145 : Nergal\_81
- Track 146 : MalagasyRose\_85
- Track 147 : Exile\_60
- Track 148 : Soondubu\_62
- Track 149 : Nitro\_70
- Track 150 : Yang\_68
- Track 151 : Pixelle\_68
- Track 152 : DrManhattan\_72, Adolin\_71
- Track 153 : TforTroy\_69
- Track 154 : Turab\_68, Adumb2043\_68, AEgle\_67, Niobe\_69, Asa16\_69, Tbone\_69, Eraser\_69, Mudpuppy\_68, Elezi\_68, Lizalica\_69, JohnDoe\_70, Powerpuff\_71, Cyan\_70, YesChef\_69, Lego\_69, Joemato\_71, Kaylissa\_71, London\_69, Warda\_70, Tutumahutu\_71
- Track 155 : Tuck\_69, Community\_70, Phives\_70
- Track 156 : DrSierra\_66
- Track 157 : Cassia\_68
- Track 158 : Amyev\_68, Tian\_67
- Track 159 : Reedo\_68
- Track 160 : Tallboi\_69
- Track 161 : Ascela\_71, Iter\_70
- Track 162 : ObiToo\_74, Crewmate\_74
- Track 163 : IttyBittyPiggy\_69
- Track 164 : KeAlii\_67
- Track 165 : Janeemi\_69
- Track 166 : Berrie\_69
- Track 167 : Sue2\_68
- Track 168 : Jstan\_70
- Track 169 : JuneStar\_68
- Track 170 : Wildwest\_65
- Track 171 : VResidence\_72
- Track 172 : MissSwiss\_70
- Track 173 : MaGuCo\_63, Maureen\_69, Liebe\_69
- Track 174 : Tweety19\_69, Snek\_68
- Track 175 : JasmineDragon\_70, ShakeltOph\_72
- Track 176 : VroomVroom\_67
- Track 177 : MiniMommy\_73
- Track 178 : Emotion\_74
- Track 179 : SPB78\_77
- Track 180 : VWB\_70
- Track 181 : Sujidade\_2
- Track 182 : Werner\_2, TagePhighter\_3, BarryBee\_3, Triste\_2, SarahRose\_2, Asten\_2, Chucky\_2, OzzyJ\_3, Emaanora\_3, Dwayne\_2, Snorlax\_2
- Track 183 : Goby\_2, Toma\_2, Dattran\_2
- Track 184 : Jash\_2, Eddasa\_2, Izzy\_2, Rusticus\_2, BryanRecycles\_2, Oliynyk\_2
- Track 185 : RedBear\_3, South40\_2, Katalie\_2
- Track 186 : Phettuccine\_2, Esperer\_2, Aaronocolus\_2, Unstoppable\_2, Bovely\_2, Leviticus\_2, Nerdos\_2, Indigo\_2
- Track 187 : Ozzie\_2, Legacy\_2, Hydra\_3, Caliburn\_2, BeardedLady\_2, SunsetPointe\_2

- Track 188 : TuanPN\_2, Ejemplo\_2
- Track 189 : Lorelei\_2, Nabi\_2, Rana\_2
- Track 190 : Yasdnil\_2, Maneekul\_2
- Track 191 : Lika\_2
- Track 192 : Nanodon\_3
- Track 193 : Whatever\_2
- Track 194 : Godpower\_2
- Track 195 : Brataylor\_2
- Track 196 : Hippo\_2
- Track 197 : Lannister\_3
- Track 198 : Zemlya\_2
- Track 199 : Celeste\_2
- Track 200 : EnochSoames\_2
- Track 201 : Danzina\_2
- Track 202 : Tefunt\_2
- Track 203 : Alvy\_3, BartholomewSD\_3, TinaBelcher\_2, Bowden\_2, TrvxScott\_2, Thestral\_2
- Track 204 : Zainub\_3
- Track 205 : R4\_1
- Track 206 : Pablito\_2
- Track 207 : Axiom\_3, Triumph\_3
- Track 208 : Marav\_3
- Track 209 : Omar\_2, Haizum\_2, Nishikigoi\_2, Diane\_2
- Track 210 : SqueakyClean\_3, Animus\_3, Janus\_3, GirlDinner\_2
- Track 211 : Caelum\_3
- Track 212 : Amethyst\_2
- Track 213 : Paedore\_3, Loofah\_3
- Track 214 : Hank144\_2
- Track 215 : Jevington\_3
- Track 216 : Daudau\_2
- Track 217 : Issmi\_2
- Track 218 : Andris\_2
- Track 219 : Paolo\_3, Puginator\_3
- Track 220 : Amela\_2
- Track 221 : Yosif\_3
- Track 222 : Kaine\_3
- Track 223 : Alsaber\_3
- Track 224 : Provolone\_4, Conan\_4, ElGato\_4
- Track 225 : Speedwell\_3
- Track 226 : Pavo\_3
- Track 227 : Saftant\_2
- Track 228 : Celery\_4
- Track 229 : Verabelle\_3
- Track 230 : Verse\_2
- Track 231 : BroPlease\_1, phiHau3\_1, GreenWeasel\_1
- Track 232 : Celia\_2, Itza\_2, Urza\_2
- Track 233 : VieEnRose\_2
- Track 234 : PhinkBoden\_15, Geeche\_13, Cucurbita\_13, ClubL\_14, Dusty\_13, Culver\_13, Bachita\_15, Abscondus\_14, WilliamBoone\_12
- Track 235 : Norvs\_14, Smoothie\_14, Aphelion\_14, Lozinak\_14, Miskis\_16, Engineer\_14, Toniann\_14
- Track 236 : OneUp\_9
- Track 237 : BrutonGaster\_7

- Track 238 : Button\_71
- Track 239 : PotPie\_71, SummitAcademy\_71
- Track 240 : Jamzy\_76
- Track 241 : HippoPololi\_68
- Track 242 : Survivors\_69
- Track 243 : Buttrmlkdreams\_71, Horseradish\_71
- Track 244 : Axym\_69, Agatha\_71, Burnsey\_70
- Track 245 : Margaret\_75
- Track 246 : Vine\_74, Elinal\_76, Mayweather\_74, KayGee\_74
- Track 247 : Lauer\_66
- Track 248 : Yakult\_74
- Track 249 : RanchParmCat\_74
- Track 250 : GiKK\_75
- Track 251 : Quasar\_71
- Track 252 : Orla\_75
- Track 253 : Dre3\_68
- Track 254 : Amok\_68, Emalyn\_67
- Track 255 : Azira\_67, Nibbles\_67, Fribs8\_67
- Track 256 : SweatNTears\_71
- Track 257 : MAnor\_73, Pons\_74
- Track 258 : MunkgeeRoachy\_69
- Track 259 : Yummy\_71
- Track 260 : Troje\_71
- Track 261 : Nodigi\_74
- Track 262 : Cashline\_76
- Track 263 : Wrigley\_81, Jablanski\_82, Posh\_79, Pytheas\_83
- Track 264 : LonelyBoi\_78
- Track 265 : Angelique\_76
- Track 266 : Bradissa\_76
- Track 267 : Pollux\_82, EMSquaredA\_80, Floral\_80
- Track 268 : EnalisNailo\_76
- Track 269 : BritBrat\_98
- Track 270 : Bunnybear\_78, Maridalia\_83, Eudoria\_79, Neobush\_81, Kita\_80, Zameen\_79, WelcomeAyanna\_83, Antonio\_78, Trumpet\_79, Manasvini\_81, Tayonia\_79, ThankyouJordi\_83, Polly\_76, Susceptit\_79
- Track 271 : Nymphadora\_84, Bosnia\_82, Eviarto\_84, BatStarr\_83, TimTam\_84, Herod\_84
- Track 272 : Hyzer\_101
- Track 273 : Agueybana\_85, Bialota\_79, Zirinka\_79, AlumE\_82, BoyNamedSue\_82
- Track 274 : Madeline\_76
- Track 275 : RavenCo17\_74
- Track 276 : JonJames\_13, Cardigan\_14
- Track 277 : Yvonnestic\_14
- Track 278 : Bantam\_8
- Track 279 : Daredevil\_10
- Track 280 : SpeedDemon\_90
- Track 281 : DatBoi\_9
- Track 282 : Towmatter\_9
- Track 283 : Mollymur\_10
- Track 284 : MortyNRick\_99, Birdsong\_96, BearBQ\_102
- Track 285 : Crater\_100, Apricot\_101
- Track 286 : Kuwabara\_94
- Track 287 : Honk\_82

- Track 288 : Caron\_82
- Track 289 : Percival\_75, Gretchen\_74
- Track 290 : Mabodamaca\_75
- Track 291 : Floof\_81
- Track 292 : Zeta1847\_76
- Track 293 : Barnstormer\_77, UtzChips\_77
- Track 294 : SuMoo\_83
- Track 295 : IAmGroot\_75, GardenState\_76
- Track 296 : Poushou\_54, TouchMeNot\_54, Arianna\_54
- Track 297 : LunaStella\_101, TChen\_101, Renaud18\_112
- Track 298 : RootBeer\_55
- Track 299 : NoSwimming\_59
- Track 300 : Marvin\_86, Beelzebub\_96, Corazon\_87, Lilbit\_90, FeliMaine\_92, Clarkson\_93, Huphlepuuff\_94, Pringar\_88
- Track 301 : JoieB\_93, Raela\_94, RedRaider77\_92, VasuNzinga\_90, Poise\_93, Caprice\_85, Tesla\_88, Blackbeetle\_93
- Track 302 : Gattaca\_91, GoongGoong\_90, MosMoris\_88
- Track 303 : LittleLaf\_90
- Track 304 : ZenTime222\_65, Bernal13\_59, Ibrahim\_59, RonRayGun\_59, Whitty\_58
- Track 305 : Mendokysei\_63
- Track 306 : Nairb\_57
- Track 307 : Nebkiss\_165, Gaia\_169
- Track 308 : Juicebox\_59
- Track 309 : Samy\_101
- Track 310 : Attoomi\_53
- Track 311 : Footloose\_71

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

The start number called the most often in the published annotations is 158, it was called in 512 of the 906 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_4, 40AC\_5, AN3\_4, AN9\_4, ANI8\_4, AbbyPaige\_5, Abbyshoes\_2, Acme\_2, Acolyte\_4, Adahisdi\_1, Adzzy\_4, Aeneas\_1, Agape74\_5, Aglet\_1, Ajay\_1, Alsaber\_3, Alsfro\_2, Altman\_3, Alvin\_3, Alvy\_3, Amethyst\_2, Anaysia\_4, Andris\_2, Aneem\_4, Anglerfish\_2, Animus\_3, AnnaL29\_4, Anon\_4, Anselm\_5, Anthony\_1, Anubis\_3, Applejack\_1, Arcanine\_2, ArcherNM\_4, Arlo\_2, Artemis2UCLA\_4, Ashballer\_1, Atkinbua\_1, AugsMagnumOpus\_3, Axiom\_3, BABullseye\_4, BPBiebs31\_2, BabyBack\_4, BabyRay\_1, BaconJack\_2, Bactobuster\_4, Baehexic\_5, Barriga\_2, BartholomewSD\_3, Battleship\_5, Beatrix\_1, Beauxregard13\_1, Beelzebub\_96, BeesKnees\_2, BengiVuitton\_4, Benvolio\_5, Bethlehem\_2, Bexan\_1, BiancaTri92\_4, Big3\_1, BigMau\_3, BigPaolini\_1, Bigfoot\_1, BillKnuckles\_2, Bircsak\_2, Blackbeetle\_93, Blinn1\_4, BluSpix\_1, Blue7\_4, BlueBird\_1, Blue\_3, Bob3\_2, BobSwaget\_5, Bones\_1, Boohoo\_4, Bowden\_2, Bowtie\_4, Briton15\_2, BroPlease\_1, Bruns\_1, Bud\_4, Buggy\_5, Burton\_2, Buttons\_2, Bxb1\_1, Bxz2\_1, C3\_04, CRB1\_4, CactusRose\_1, Caelum\_3, Caprice\_85, Carlyle\_2, Caviar\_1, Celery\_4, Celia\_2, Centaur\_5, Chanagan\_2, Changeling\_4, Chargerpower\_5, Che12\_4, ChipMunk\_5, Ciao\_1, Clarkson\_93, CloudWang3\_4, Colin\_5, Conan\_4, ConceptII\_2, Cookiedough\_4, Corazon\_87, Corvo\_2, Crispicious1\_1, Crucio\_5, Cueyllyss\_1,

D29\_4, D32\_4, DBQu4n\_4, DD5\_2, DaHudson\_1, DaVinci\_4, Dalmatian\_5, DekHockey33\_4, Deloris\_4, Dexes\_2, Diane\_2, Dignity\_5, Doom\_1, Dorothea\_4, DrFeelGood\_1, Drake55\_5, Dreamboat\_2, DroogsArmy\_1, DudeLittle\_5, Dulcie\_1, Duplo\_4, Dussy\_2, Dynamix\_2, EZMoney23\_4, Echild\_5, Edtherson\_2, ElGato\_4, EnochSoames\_2, EpicPhail\_1, Epsocamisio\_4, Equemioh13\_5, EricB\_4, Espresso\_2, Euphoria\_2, EvilGenius\_5, Eyeball\_1, Fajezeel\_2, Fameo\_5, Farber\_1, Fascinus\_1, FeliMaine\_92, Fenn\_1, Fernando\_1, Fibonacci\_4, FiringLine\_5, First\_004, Flare16\_5, Flaverint\_4, Forsytheast\_1, Francis47\_2, Froghopper\_2, Fushigi\_2, GageAP\_2, Gail\_4, Gandalf20\_2, GaugeLDP\_4, Georgie2\_5, Gilberta\_4, GirlDinner\_2, Gladiator\_4, Gompeii16\_2, Graduation\_1, GrecoEtereo\_2, GreedyLawyer\_4, GreenWeasel\_1, Greg\_2, Grif\_1, Groupthink\_2, Grub\_1, Grum1\_1, Gruunaga\_4, GtownJaz\_1, Gwendoluna\_1, Gyzlar\_2, HINdeR\_1, Haizum\_2, Hami1\_1, Hammer\_4, Hank144\_2, HarryHoudini\_5, HarryOW\_2, HaveUMetTed\_2, Heffalump\_5, Herbertwm\_1, Hercules11\_1, Hermia\_2, HermioneGrange\_2, Hexamo\_4, Homines\_2, Hookmount\_1, Hoot\_4, Hope4ever\_1, Huphlepuuff\_94, Hutc2\_4, ILeeKay\_1, Ichabod\_2, IgnatiusPatJac\_1, Indra\_4, Insomnia\_4, Inyanga\_1, IronMan\_4, Isca\_1, Isiphiwo\_4, Issmi\_2, Itza\_2, Iwokeuplikedis\_5, JC27\_2, JF2\_1, JF4\_1, JHC117\_1, JSwag\_4, Jaan\_4, Jabith\_4, JackSparrow\_1, Janus\_3, Jasper\_2, Jeeves\_4, Jeffabunny\_4, JeppNRM\_2, Jerm2\_2, Jerm\_5, Jevington\_3, JewelBug\_4, JoieB\_93, Jordennis\_4, Jorgensen\_2, Joselito\_4, JoshKayV\_5, Journey13\_4, Jsquared\_4, JuliaChild\_2, KADY\_2, KBG\_2, Kaine\_3, Kalb97\_2, Kalpine\_4, Kanely\_3, KatherineG\_4, Kazan\_4, Kenmech\_2, Kerberos\_4, Killigrew\_1, Kimona\_1, KingCyrus\_5, Kipper29\_4, Koko\_4, Kugel\_1, KyMonks1A\_1, Kykar\_1, L5\_4, LadyBird\_4, Lambert1\_1, Lamina13\_2, Landor\_4, Larenn\_5, LarryKay\_1, LastResort\_4, Leogania\_4, Lesedi\_1, Leviathan\_5, Licorice\_2, LilBib\_1, LilTurb\_5, Lilbit\_90, Lilbunny\_4, Lilith\_1, Lockley\_2, Lokk\_5, Loofah\_3, Looper\_4, Lopton\_2, Loser\_4, Louie6\_1, Luchador\_4, Lucivia\_4, MA5\_1, MK4\_1, MPlant7149\_2, MaCh\_4, Magnar\_1, Mainiac\_1, Makemake\_2, Malec\_5, Malinsilva\_3, Manatee\_2, Manu\_2, MarQuardt\_1, Marav\_3, Marcell\_2, Marchy\_2, Marge\_1, Margo\_1, Marius\_2, Maroc7\_1, Marvin\_86, MaryBeth\_2, McFly\_4, McGuire\_2, MetalQZJ\_2, Methuselah\_1, Michley\_1, Microwolf\_1, MiculUcigas\_5, Miko\_5, MinecraftSteve\_5, MissWhite\_4, Mkhuseleli\_1, Molly\_2, Monet\_2, Moose\_1, Mryolo\_1, Mulciber\_4, Mule\_1, Munch\_4, Museum\_3, NEHalo\_2, NaSiaTalie\_5, Naira\_1, Naji\_4, Nebulosus\_4, Nedarya\_4, Neeharika16\_4, Nerujay\_1, Newrala\_4, Nhonho\_2, NicoleTera\_4, Nishikigoi\_2, Niza\_3, Noella\_1, Norz\_2, Odin\_3, Ohno789\_1, OlanP\_1, Ollie\_1, Omar\_2, Oogway\_1, PGHhamlin\_3, PSullivan\_2, Pablito\_2, PacerPaul\_2, Paedore\_3, Paolo\_3, Paphu\_1, Paraselene\_1, Pari\_2, Parliament\_1, PascalRango\_2, PattyP\_2, Pavo\_3, Payneful\_2, Pelly\_2, Penny1\_1, Pepe\_2, Perseus\_1, Peterson\_1, Petp2012\_2, Petruccio\_2, Ph8s\_4, Phaded\_4, PherrisBueller\_2, PhishRPhriends\_1, Phoxy\_1, Phranny\_2, PinkPlastic\_1, Pippin\_2, Piro94\_4, Pistachio\_1, Pita2\_2, Pmask\_4, Pocahontas\_1, Poise\_93, Pomar16\_4, Power\_5, Priamo\_4, Pringar\_88, ProMouse\_1, Provolone\_4, Puginator\_3, Pukovnik\_4, Puppy\_1, QTRlifeCrisis\_1, QueenB2\_5, QueenBeesly\_5, R4\_1, Rachaly\_5, Raela\_94, Raid\_3, Rajelicia\_2, ReMo\_4, Reba\_2, RedRaider77\_92, RedRock\_4, Refuge\_4, Remus\_4, ResDef\_1, Retro23\_5, Rhynn\_1, RidgeCB\_2, Rifter\_4, Ringer\_1, Rohr\_2, Roksolana\_4, Rosalind\_4, Rubeus\_2, Rufus\_2, Rutherford\_1, STLscum\_2, Sabinator\_1, Saftant\_2, Sagefire\_2, Salz\_4, SarFire\_2, Scowl\_2, Seabiscuit\_2, Seanderson\_1, SemperFi\_5, Serenity\_4, Sham4\_4, ShayRa\_5, ShortQueendom\_1, Sibs6\_2, SkiPole\_2, Sknot\_6, Slagathor\_2, Smairt\_1, Smeagan\_5, Smeagol\_1, SmellyB\_4, SnapTap\_5, Snape\_4, Snazzy\_1, Solon\_1, SororFago\_4, Sorpresa\_1, Soups\_4, Speedwell\_3, Spike509\_1, SpikeBT\_1, SqueakyClean\_3, Squee\_1, Stagni\_1, StarStuff\_4, Steamy\_4, StepMih\_1, StewieG\_1, StrongArm\_1, Strosahl\_4, Sumter\_1, Sunshine924\_1,



SuperAwesome\_4, SuperCallie99\_4, Superchunk\_4, SweetiePie\_5, SwissCheese\_1, Switzer\_2, Switzerland\_4, Swole\_2, TNguyen7\_1, Target\_2, TarsusIV\_5, Tasp14\_2, Teodoridan\_1, Tesla\_88, TheloniousMonk\_2, Thestral\_2, Thor\_2, Tiffany\_1, Timothy\_4, Timshel\_1, TinaBelcher\_2, TinyTimmy\_4, TipsytheTRex\_4, Todacoro\_1, Tomathan\_4, Topgun\_1, Tote\_2, Traft412\_3, Travvers\_4, Treddle\_2, Tripl3t\_1, Triumph\_3, Trixie\_4, Trooper\_5, TrvxScott\_2, Tucker\_4, Turbido\_5, Turj99\_1, TwoPeat\_2, U2\_2, Updawg\_5, Urza\_2, VA6\_4, VC3\_4, VasuNzinga\_90, Verabelle\_3, Verse\_2, VieEnRose\_2, Violet\_2, Vix\_1, VohminGhazi\_4, Waits\_4, Watermelon\_2, Watson\_1, WeiHuaDA\_5, Whabigail7\_5, Wheeler\_2, WideWale\_5, Wiks\_4, Wilkins\_1, WunderPhul\_4, XianYue\_4, Yecey3\_4, Yokurt\_4, Yosif\_3, Zainub\_3, Zaka\_4, Zeeculate\_1, Zephyr\_1, Zeuska\_1, Zulu\_4, phiHau3\_1,

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

- AFIS\_1, AgronaGT15\_1, Amela\_2, Bachome\_4, BreSam8\_1, Colbster\_1, Cullens\_1, Daishi\_1, Daudau\_2, Dieselweasel\_1, Ebony\_4, Gemma\_1, GingkoMaracino\_1, HashRod\_2, Heliosoles\_1, JenCasNa\_1, Jobu08\_1, KSSJEB\_1, Kalnok\_2, LBerry\_1, LittleLaf\_90, LugYA\_3, MadMarie\_1, Magnito\_1, Marie\_1, MoneyMay\_1, MrGordo\_1, Orange\_4, P28Green\_1, Papez\_2, Pawn\_1, Pembroke\_1, Phoebe\_1, PhrostyMug\_1, Pinto\_1, PotatoSplit\_2, PurpleHaze\_1, Rummer\_1, Sabia\_1, SoilDragon\_1, Soshari\_3, Taurus\_1, Tefunt\_2, Toaka\_4, Trouble\_1, Wooldri\_3, Zetzy\_1,

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

- AEgle\_67, Aaronocolus\_2, Abrogate\_20, Abscondus\_14, Adolin\_71, Adumb2043\_68, Agatha\_71, AgentM\_1, Agueybana\_85, Airmid\_1, Aliter\_4, Alma\_4, AlumE\_82, Amok\_68, Amyev\_68, Angelique\_76, Antonio\_78, Aphelion\_14, Apricot\_101, Aragog\_1, Archetta\_1, Arianna\_54, Arissanae\_4, Asa16\_69, Ascela\_71, Asten\_2, Astro\_1, Attoomi\_53, Axym\_69, Azira\_67, Bachita\_15, Bantam\_8, Barnstormer\_77, BarryBee\_3, BatStarr\_83, BearBQ\_102, BeardedLady\_2, Beemo\_4, Benedict\_1, Bernal13\_59, Berrie\_69, Bialota\_79, Birdsong\_96, BogosyJay\_4, Bosnia\_82, Bovely\_2, BoyNamedSue\_82, Bradissa\_76, Brataylor\_2, BritBrat\_98, BrutonGaster\_7, BryanRecycles\_2, Bunnybear\_78, Burnsey\_70, Button\_71, Buttrmlkdreams\_71, Caliburn\_2, Cardigan\_14, Caron\_82, Cashline\_76, Cassia\_68, Catalina\_4, Celeste\_2, Cerulean\_1, Chadwick\_1, ChampagnePapi\_1, Charm\_4, Chucky\_2, Chupacabra\_1, Cindaradix\_1, ClubL\_14, Community\_70, Conquerage\_4, Conspiracy\_1, Coog\_1, Crater\_100, Crewmate\_74, Cuco\_1, Cucurbita\_13, Culver\_13, Cyan\_70, Danzina\_2, Daredevil\_10, Darrell\_4, DarthPhader\_4, DatBoi\_9, Dattran\_2, Discoknowium\_1, Dixon\_1, DrManhattan\_72, DrSierra\_66, Drake94\_1, Dre3\_68, DreamCatcher\_2, DreamTeam1\_4, Dusty\_13, Dwayne\_2, EMSquaredA\_80, EagleEye\_4, Eaglepride\_1, Eddasa\_2, Edison31\_1, Eidsmoe\_4, Ejemplo\_2, EITiger69\_1, Elephantoon\_4, Elezi\_68, Elinal\_76, Emaanora\_3, Emalyn\_67, Emotion\_74, EmyBug\_4, EnalisNailo\_76, Engineer\_14, Eraser\_69, Esperer\_2, Eudoria\_79, Eviarto\_84, Exile\_60, ExplosioNervosa\_4, Farewell\_96, Fayely\_4, Floof\_81, Floral\_80, FlyCatcher\_1, Footloose\_71, ForGetIt\_1, Fred313\_1, Fribs8\_67, Gaia\_169, GardenState\_76, Gattaca\_91, Geeche\_13, GiKK\_75, Goby\_2, Godpower\_2, GoongGoong\_90, Goose\_1, Gretchen\_74, Herod\_84, HippoPololi\_68, Hippo\_2, Honk\_82, Horseradish\_71, HortumSL17\_4, HuhtaEnerson15\_1, Hydra\_3, Hyzer\_101, IAmGroot\_75, Ibrahim\_59, Indigo\_2, Iter\_70, IttyBittyPiggy\_69, Izzy\_2, Jabiru\_1, Jablanski\_82, Jamzy\_76, Janeemi\_69, Jash\_2, JasmineDragon\_70, Joemato\_71, JohnDoe\_70, JonJames\_13, Jovo\_1, Jstan\_70, Juicebox\_59, JuneStar\_68, Kachowdy\_1, Katalie\_2, KayGee\_74, Kaylissa\_71, KeAlii\_67, Keziacharles14\_4, Kita\_80, KittenMittens\_1, Kristoff\_2, Kuwabara\_94, LHTSCC\_1, Lannister\_3, Lauer\_66, Legacy\_2, Lego\_69, Lev2\_1, Leviticus\_2, Liebe\_69, Lika\_2,

LittleCherry\_1, Lizalica\_69, London\_69, LoneWolf\_4, LonelyBoi\_78, Lorelei\_2, Lozinak\_14, Lucyedi\_4, LunaStella\_101, MAnor\_73, MaGuCo\_63, Mabodamaca\_75, Madeline\_76, MalagasyRose\_85, Maminaiaina\_4, Manasvini\_81, Maneekul\_2, Margaret\_75, Maridalia\_83, Marsha\_2, Maureen\_69, Mayweather\_74, Mendokyse\_63, Midas2\_1, Milcery\_1, MiniMommy\_73, Miskis\_16, MissSwiss\_70, Mollymur\_10, MortyNRick\_99, MosMoris\_88, Mudpuppy\_68, MunkgeeRoachy\_69, MyraDee\_1, Myxus\_4, Nabi\_2, Naca\_1, Nairb\_57, Nanodon\_3, NearlyHeadless\_1, Nebkiss\_165, Neobush\_81, Nerdos\_2, Nergal\_81, Nibbles\_67, Niobe\_69, Nitro\_70, NoSwimming\_59, Nodigi\_74, Norvs\_14, Nymphadora\_84, OKCentral2016\_1, ObiToo\_74, Oliynyk\_2, OneUp\_9, Orla\_75, Ozzie\_2, OzzyJ\_3, PackMan\_4, PainterBoy\_4, PeaceMeal1\_1, Percival\_75, PetterN\_1, Phaeder\_4, Phantastic\_1, Pharaoh\_4, Phettuccine\_2, Phillis\_1, PhinkBoden\_15, Phives\_70, Phlorence\_1, Phonnegut\_4, PickleBack\_1, Pioneer\_4, Pixelle\_68, Pollux\_82, Polly\_76, Pons\_74, Poompha\_1, Posh\_79, PotPie\_71, Poushou\_54, Powerpuff\_71, Priya\_4, Pytheas\_83, Qobbit\_4, Quasar\_71, Rahalelujah\_4, Rana\_2, RanchParmCat\_74, RavenCo17\_74, RedBear\_3, Reedo\_68, Renaud18\_112, RhynO\_1, Roary\_1, RonRayGun\_59, RootBeer\_55, Ruotula\_2, Rusticus\_2, RyeScarlet\_5, SPB78\_77, Saintus\_1, Samy\_101, Sanya\_1, SarahRose\_2, Scherzo\_4, Scorpio\_1, Scout\_1, Severus\_1, ShakeltOph\_72, SheaKeira\_4, Sheen\_1, Smeadley\_1, Smoothie\_14, Sneek\_68, Snorlax\_2, Soondubu\_62, South40\_2, Sparky\_95, SpeedDemon\_90, Spouty\_4, Stephig9\_1, Stink\_1, SuMoo\_83, Sue2\_68, Sujidade\_2, SummitAcademy\_71, SunsetPointe\_2, Survivors\_69, Suscepit\_79, SweatNTears\_71, TChen\_101, TAgePghter\_3, Tallboi\_69, Tayonia\_79, Tbone\_69, TforTroy\_69, ThankyouJordi\_83, Tian\_67, Tiger\_1, TimTam\_84, Toma\_2, Toniann\_14, Topanga\_1, Toro\_1, TouchMeNot\_54, Towmatter\_9, Triste\_2, Troje\_71, Trumpet\_79, TuanPN\_2, Tubs\_4, Tuck\_69, Turab\_68, Tutumahutu\_71, Tweety19\_69, Twister\_1, UnionJack\_87, Unstoppable\_2, UtzChips\_77, VResidence\_72, VWB\_70, Vanisoa\_4, Vine\_74, VroomVroom\_67, WalterMcMickey\_1, Warda\_70, WelcomeAyanna\_83, Werner\_2, Whatever\_2, Whitty\_58, Wildwest\_65, WilliamBoone\_12, Wrigley\_81, Yakult\_74, Yang\_68, Yasdnil\_2, YesChef\_69, Yummy\_71, Yvonnetastic\_14, Zameen\_79, Zemlya\_2, ZenTime222\_65, Zeta1847\_76, Zimmer\_4, Zirinka\_79,

### Summary by start number:

#### Start 60:

- Found in 2 of 954 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Amela\_2 (BD3),

#### Start 65:

- Found in 25 of 954 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 2 of 906
- Called 8.0% of time when present
- Phage (with cluster) where this start called: Brataylor\_2 (BD1), Whatever\_2 (BD1),

#### Start 72:

- Found in 3 of 954 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Godpower\_2 (BD1),

#### Start 94:

- Found in 12 of 954 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 2 of 906
- Called 16.7% of time when present
- Phage (with cluster) where this start called: ChampagnePapi\_1 (A4), Stink\_1 (A4),

#### Start 95:

- Found in 3 of 954 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Cindaradix\_1 (A4),

#### Start 105:

- Found in 10 of 954 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Daudau\_2 (BD2),

#### Start 114:

- Found in 73 of 954 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 4 of 906
- Called 5.5% of time when present
- Phage (with cluster) where this start called: Magnito\_1 (A1), PhrostyMug\_1 (A1), Pinto\_1 (A1), Trouble\_1 (A1),

#### Start 115:

- Found in 30 of 954 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 28 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana\_85 (CZ1), AlumE\_82 (CZ1), Antonio\_78 (CZ1), BatStarr\_83 (CZ1), Bialota\_79 (CZ1), Bosnia\_82 (CZ1), BoyNamedSue\_82 (CZ1), Bunnybear\_78 (CZ), Eudoria\_79 (CZ1), Eviarto\_84 (CZ1), Herod\_84 (CZ1), Hyzer\_101 (CZ1), Kita\_80 (CZ1), Madeline\_76 (CZ1), Manasvini\_81 (CZ1), Maridalia\_83 (CZ1), Neobush\_81 (CZ1), NoSwimming\_59 (FO), Nymphadora\_84 (CZ1), Polly\_76 (CZ1), RavenCo17\_74 (CZ8), RootBeer\_55 (FA), Suscepit\_79 (CZ1), Tayonia\_79 (CZ1), ThankyouJordi\_83 (CZ1), TimTam\_84 (CZ1), Trumpet\_79 (CZ1), WelcomeAyanna\_83 (CZ1), Zameen\_79 (CZ1), Zirinka\_79 (CZ1),

#### Start 122:

- Found in 31 of 954 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 3.2% of time when present
- Phage (with cluster) where this start called: Papez\_2 (A1),

#### Start 123:

- Found in 5 of 954 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 20.0% of time when present
- Phage (with cluster) where this start called: GiKK\_75 (CT),

#### Start 126:

- Found in 22 of 954 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 3 of 906
- Called 13.6% of time when present

- Phage (with cluster) where this start called: ExplosioNervosa\_4 (A9), Qobbit\_4 (A9), Toaka\_4 (A9),

#### Start 127:

- Found in 4 of 954 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Quasar\_71 (CT),

#### Start 131:

- Found in 21 of 954 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Danzina\_2 (BD1),

#### Start 132:

- Found in 84 of 954 ( 8.8% ) of genes in pham
- Manual Annotations of this start: 31 of 906
- Called 36.9% of time when present
- Phage (with cluster) where this start called: AgronaGT15\_1 (A3), BreSam8\_1 (A3), Colbster\_1 (A3), Cullens\_1 (A3), Daishi\_1 (A3), Dieselweasel\_1 (A3), Gemma\_1 (A3), GingkoMaracino\_1 (A3), HashRod\_2 (A3), Heliosoles\_1 (A3), JenCasNa\_1 (A3), Jobu08\_1 (A3), Kalnoky\_2 (A3), LBerry\_1 (A3), LugYA\_3 (A3), MadMarie\_1 (A3), Marie\_1 (A3), MoneyMay\_1 (A3), P28Green\_1 (A3), Pawn\_1 (A3), Pembroke\_1 (A3), Phoebe\_1 (A3), PotatoSplit\_2 (A3), PurpleHaze\_1 (A3), Rummer\_1 (A3), Sabia\_1 (A3), SoilDragon\_1 (A3), Soshari\_3 (A3), Taurus\_1 (A3), Wooldri\_3 (A3), Zetzy\_1 (A3),

#### Start 133:

- Found in 83 of 954 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 3 of 906
- Called 3.6% of time when present
- Phage (with cluster) where this start called: AFIS\_1 (A1), KSSJEB\_1 (A1), MrGordo\_1 (A1),

#### Start 137:

- Found in 4 of 954 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 3 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fred313\_1 (A3), Kachowdy\_1 (A3), Phantastic\_1 (A3), Scout\_1 (A3),

#### Start 138:

- Found in 41 of 954 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 40 of 906
- Called 97.6% of time when present
- Phage (with cluster) where this start called: AgentM\_1 (A5), Aragog\_1 (A5), Archetta\_1 (A5), Benedict\_1 (A5), Chadwick\_1 (A5), Chupacabra\_1 (A10), Conspiracy\_1 (A5), Coog\_1 (A5), Cuco\_1 (A5), Discoknowium\_1 (A5), Drake94\_1 (A10), Eaglepride\_1 (A10), Edison31\_1 (A10), ElTiger69\_1 (A5), ForGetIt\_1 (A5), Goose\_1 (A10), HuhtaEnerson15\_1 (A5), Jabiru\_1 (A5), Jovo\_1 (A5), KittenMittens\_1 (A10), Kristoff\_2 (A10), Lev2\_1 (A5), LittleCherry\_1 (A5), Midas2\_1 (A5), Milcery\_1 (A5), Naca\_1 (A5), OKCentral2016\_1 (A10), PeaceMeal1\_1 (A10), PetterN\_1 (A5),

Phlorence\_1 (A5), PickleBack\_1 (A5), Poompha\_1 (A10), RhynO\_1 (A10), Scorpia\_1 (A5), Severus\_1 (A10), Tiger\_1 (A5), Topanga\_1 (A10), Twister\_1 (A10), UnionJack\_87 (A5), WalterMcMickey\_1 (A10),

Start 140:

- Found in 8 of 954 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 2 of 906
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Buttrmlkdreams\_71 (CT), Horseradish\_71 (CT),

Start 143:

- Found in 26 of 954 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 21 of 906
- Called 80.8% of time when present
- Phage (with cluster) where this start called: Agatha\_71 (CT), Amok\_68 (CT), Axym\_69 (CT), Azira\_67 (CT), Burnsey\_70 (CT), Button\_71 (CT), Dre3\_68 (CT), Emalyn\_67 (CT), Fribs8\_67 (CT), HippoPololi\_68 (CT), Jamzy\_76 (CT), Margaret\_75 (CT), MunkgeeRoachy\_69 (CT), Nibbles\_67 (CT), Nodigi\_74 (CT), Orla\_75 (CT), RanchParmCat\_74 (CT), Survivors\_69 (CT), SweatNTears\_71 (CT), Troje\_71 (CT), Yakult\_74 (CT),

Start 146:

- Found in 12 of 954 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 9 of 906
- Called 91.7% of time when present
- Phage (with cluster) where this start called: Elinal\_76 (CT), FlyCatcher\_1 (A7), KayGee\_74 (CT), MAnor\_73 (CT), Mayweather\_74 (CT), Pons\_74 (CT), PotPie\_71 (CT), Sheen\_1 (A7), SummitAcademy\_71 (CT), Toro\_1 (A7), Vine\_74 (CT),

Start 148:

- Found in 3 of 954 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 3 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arianna\_54 (EO), Poushou\_54 (EO), TouchMeNot\_54 (EO),

Start 149:

- Found in 14 of 954 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Tefunt\_2 (BD2),

Start 151:

- Found in 13 of 954 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 2 of 906
- Called 30.8% of time when present
- Phage (with cluster) where this start called: JasmineDragon\_70 (AZ4), MiniMommy\_73 (AZ4), ShakeltOph\_72 (AZ4), VroomVroom\_67 (AZ4),

Start 153:

- Found in 8 of 954 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 2 of 906

- Called 25.0% of time when present
- Phage (with cluster) where this start called: Cerulean\_1 (A4), LHTSCC\_1 (A4),

#### Start 154:

- Found in 52 of 954 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 33 of 906
- Called 65.4% of time when present
- Phage (with cluster) where this start called: Aliter\_4 (A9), Alma\_4 (A9), Arissanae\_4 (A9), Beemo\_4 (A9), BogosyJay\_4 (A9), Catalina\_4 (A9), Charm\_4 (A9), Conquerage\_4 (A9), Darrell\_4 (A9), DreamTeam1\_4 (A9), EagleEye\_4 (A16), Eidsmoe\_4 (A9), Elephantoon\_4 (A9), EmyBug\_4 (A9), Fayely\_4 (A9), HortumSL17\_4 (A9), Keziacharles14\_4 (A9), LoneWolf\_4 (A9), Lucyedi\_4 (A16), Maminiaina\_4 (A9), Myxus\_4 (A9), PackMan\_4 (A9), PainterBoy\_4 (A16), Phaeder\_4 (A9), Phonnegut\_4 (A9), Pioneer\_4 (A9), Priya\_4 (A9), Rahalelujah\_4 (A9), RyeScarlet\_5 (A9), Scherzo\_4 (A9), SheaKeira\_4 (A9), Spouty\_4 (A9), Tubs\_4 (A9), Vanisoa\_4 (A9),

#### Start 155:

- Found in 4 of 954 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 4 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DARTHPhader\_4 (A12), Marsha\_2 (A1), Pharaoh\_4 (A12), Zimmer\_4 (A12),

#### Start 156:

- Found in 2 of 954 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SPB78\_77 (BA), VWB\_70 (BA),

#### Start 157:

- Found in 129 of 954 ( 13.5% ) of genes in pham
- Manual Annotations of this start: 117 of 906
- Called 96.1% of time when present
- Phage (with cluster) where this start called: AEgle\_67 (AZ1), Aaronocolus\_2 (BD1), Adolin\_71 (AZ1), Adumb2043\_68 (AZ1), Amyev\_68 (AZ1), Asa16\_69 (AZ1), Ascela\_71 (AZ1), Asten\_2 (BD1), Attoomi\_53 (singleton), Barnstormer\_77 (EH), BarryBee\_3 (BD1), BeardedLady\_2 (BD1), Berrie\_69 (AZ1), Bovely\_2 (BD1), BryanRecycles\_2 (BD1), Caliburn\_2 (BD1), Caron\_82 (EH), Cassia\_68 (AZ1), Celeste\_2 (BD1), Chucky\_2 (BD1), Community\_70 (AZ1), Crewmate\_74 (AZ1), Cyan\_70 (AZ1), Dattran\_2 (BD1), DrManhattan\_72 (AZ1), DrSierra\_66 (AZ1), Dwayne\_2 (BD1), Eddasa\_2 (BD1), Ejemplo\_2 (BD1), Elezi\_68 (AZ1), Emaanora\_3 (BD1), Emotion\_74 (AZ4), Eraser\_69 (AZ1), Esperer\_2 (BD1), Exile\_60 (AZ), Floof\_81 (EH), GardenState\_76 (EH), Gattaca\_91 (S), Goby\_2 (BD1), GoongGoong\_90 (S), Gretchen\_74 (EH), Hippo\_2 (BD1), Honk\_82 (EH), Hydra\_3 (BD1), IAmGroot\_75 (EH), Indigo\_2 (BD1), Iter\_70 (AZ1), IttyBittyPiggy\_69 (AZ1), Izzy\_2 (BD1), Janeemi\_69 (AZ1), Jash\_2 (BD1), Joemato\_71 (AZ1), JohnDoe\_70 (AZ1), JuneStar\_68 (AZ1), Katalie\_2 (BD1), Kaylissa\_71 (AZ1), KeAlii\_67 (AZ1), Lannister\_3 (BD1), Legacy\_2 (BD1), Lego\_69 (AZ1), Leviticus\_2 (BD1), Liebe\_69 (AZ2), Lika\_2 (BD1), Lizalica\_69 (AZ1), London\_69 (AZ1), Lorelei\_2 (BD1), MaGuCo\_63 (AZ2), Mabodamaca\_75 (EH), Maneekul\_2 (BD1), Maureen\_69 (AZ2), MissSwiss\_70 (AZ1), MosMoris\_88 (S), Mudpuppy\_68 (AZ1), Nabi\_2 (BD1), Nanodon\_3 (BD1), Nerdos\_2 (BD1), Niobe\_69 (AZ1), Nitro\_70 (AZ1), ObiToo\_74

(AZ1), Oliynyk\_2 (BD1), Ozzie\_2 (BD1), OzzyJ\_3 (BD1), Percival\_75 (EH), Phettuccine\_2 (BD1), Phives\_70 (AZ1), Pixelle\_68 (AZ1), Powerpuff\_71 (AZ1), Rana\_2 (BD1), RedBear\_3 (BD1), Reedo\_68 (AZ1), Rusticus\_2 (BD1), Samy\_101 (singleton), SarahRose\_2 (BD1), Snek\_68 (AZ3), Snorlax\_2 (BD1), Soondubu\_62 (AZ), South40\_2 (BD1), SuMoo\_83 (EH), Sue2\_68 (AZ1), Sujidade\_2 (BD1), SunsetPointe\_2 (BD1), TagePhighter\_3 (BD1), Tallboi\_69 (AZ1), Tbone\_69 (AZ1), TforTroy\_69 (AZ1), Tian\_67 (AZ1), Toma\_2 (BD1), Triste\_2 (BD1), TuanPN\_2 (BD1), Tuck\_69 (AZ1), Turab\_68 (AZ1), Tutumahutu\_71 (AZ1), Tweety19\_69 (AZ3), Unstoppable\_2 (BD1), UtzChips\_77 (EH), VResidence\_72 (AZ1), Warda\_70 (AZ1), Werner\_2 (BD1), Wildwest\_65 (AZ1), Yang\_68 (AZ1), YasdniI\_2 (BD1), YesChef\_69 (AZ1), Zemlya\_2 (BD1), Zeta1847\_76 (EH),

Start 158:

- Found in 581 of 954 ( 60.9% ) of genes in pham
- Manual Annotations of this start: 512 of 906
- Called 91.9% of time when present
- Phage (with cluster) where this start called: 20ES\_4 (A2), 40AC\_5 (A17), AN3\_4 (A2), AN9\_4 (A2), ANI8\_4 (A2), AbbyPaige\_5 (A2), Abbyshoes\_2 (A1), Acme\_2 (A1), Acolyte\_4 (A2), Adahisdi\_1 (A1), Adzzy\_4 (A2), Aeneas\_1 (A1), Agape74\_5 (A2), Aglet\_1 (A3), Ajay\_1 (A1), Alsaber\_3 (BD3), AIsfro\_2 (A1), Altman\_3 (A1), Alvin\_3 (A1), Alvy\_3 (BD2), Amethyst\_2 (BD2), Anaysia\_4 (A15), Andris\_2 (BD2), Aneem\_4 (A11), Anglerfish\_2 (A1), Animus\_3 (BD2), AnnaL29\_4 (A2), Anon\_4 (A15), Anselm\_5 (A2), Anthony\_1 (A20), Anubis\_3 (A3), Applejack\_1 (A1), Arcanine\_2 (A1), ArcherNM\_4 (A2), Arlo\_2 (A1), Artemis2UCLA\_4 (A6), Ashballer\_1 (A1), Atkinbua\_1 (A1), AugsMagnumOpus\_3 (A3), Axiom\_3 (BD2), BABullseye\_4 (A6), BPBiEbs31\_2 (A1), BabyBack\_4 (A2), BabyRay\_1 (A3), BaconJack\_2 (A1), Bactobuster\_4 (A2), Baehexic\_5 (A2), Barriga\_2 (A1), BartholomewSD\_3 (BD2), Battleship\_5 (A15), Beatrix\_1 (A1), Beauxregard13\_1 (A3), Beelzebub\_96 (S), BeesKnees\_2 (A1), BengiVuitton\_4 (A2), Benvolio\_5 (A2), Bethlehem\_2 (A1), Bexan\_1 (A1), BiancaTri92\_4 (A2), Big3\_1 (A1), BigMau\_3 (A1), BigPaolini\_1 (A1), Bigfoot\_1 (A1), BillKnuckles\_2 (A1), Bircsak\_2 (A1), Blackbeetle\_93 (S), Blinn1\_4 (A6), BluSpix\_1 (A1), Blue7\_4 (A6), BlueBird\_1 (A3), Blue\_3 (A1), Bob3\_2 (A1), BobSwaget\_5 (A2), Bones\_1 (A1), Boohoo\_4 (A15), Bowden\_2 (BD2), Bowtie\_4 (A11), Briton15\_2 (A1), BroPlease\_1 (BD4), Bruns\_1 (A1), Bud\_4 (A11), Buggy\_5 (A2), Burton\_2 (A1), Buttons\_2 (A1), Bxb1\_1 (A1), Bxz2\_1 (A3), C3\_04 (A2), CRB1\_4 (A2), CactusRose\_1 (A1), Caelum\_3 (BD2), Caprice\_85 (S), Carlyle\_2 (A1), Caviar\_1 (A3), Celery\_4 (BD3), Celia\_2 (BD6), Centaur\_5 (A2), Chanagan\_2 (A1), Changeling\_4 (A2), Chargerpower\_5 (A), Che12\_4 (A2), ChipMunk\_5 (A2), Ciao\_1 (A1), Clarkson\_93 (S), CloudWang3\_4 (A6), Colin\_5 (A2), Conan\_4 (BD3), ConceptII\_2 (A1), Cookiedough\_4 (A6), Corazon\_87 (S), Corvo\_2 (A1), Crispicous1\_1 (A1), Crucio\_5 (A2), Cueyllyss\_1 (A1), D29\_4 (A2), D32\_4 (A2), DBQu4n\_4 (A2), DD5\_2 (A1), DaHudson\_1 (A3), DaVinci\_4 (A6), Dalmatian\_5 (A2), DekHockey33\_4 (A15), Deloris\_4 (A2), Dexes\_2 (A1), Diane\_2 (BD2), Dignity\_5 (A2), Doom\_1 (A1), Dorothea\_4 (A6), DrFeelGood\_1 (A1), Drake55\_5 (A2), Dreamboat\_2 (A1), DroogsArmy\_1 (A7), DudeLittle\_5 (A2), Dulcie\_1 (A1), Duplo\_4 (A2), Dussy\_2 (A1), Dynamix\_2 (A1), EZMoney23\_4 (A2), Echild\_5 (A2), Edtherson\_2 (A1), ElGato\_4 (BD3), EnochSoames\_2 (BD1), EpicPhail\_1 (A3), Epsocamisio\_4 (A15), Equemioh13\_5 (A2), EricB\_4 (A6), Espresso\_2 (A1), Euphoria\_2 (A1), EvilGenius\_5 (A2), Eyeball\_1 (A1), Fajezeel\_2 (A1), Fameo\_5 (A2), Farber\_1 (A3), Fascinus\_1 (A1), FeliMaine\_92 (S), Fenn\_1 (A1), Fernando\_1 (A3), Fibonacci\_4 (A11), FiringLine\_5 (A2), First\_004 (A2), Flare16\_5 (A2), Flaverint\_4 (A11), Forsytheast\_1 (A1), Francis47\_2 (A1), Froghopper\_2 (A1), Fushigi\_2 (A1), GageAP\_2 (A1), Gail\_4 (A14), Gandalf20\_2 (A1), GaugeLDP\_4 (A2), Georgie2\_5 (A2), Gilberta\_4 (A11),

GirlDinner\_2 (BD2), Gladiator\_4 (A6), Gompeii16\_2 (A1), Graduation\_1 (A1), GrecoEtereo\_2 (A1), GreedyLawyer\_4 (A6), GreenWeasel\_1 (BD4), Greg\_2 (A1), Grif\_1 (A3), Groupthink\_2 (A3), Grub\_1 (A3), Grum1\_1 (A3), Gruunaga\_4 (A6), GtownJaz\_1 (A3), Gwendoluna\_1 (A1), Gyzlar\_2 (A1), HINdeR\_1 (A7), Haizum\_2 (BD2), Hami1\_1 (A1), Hammer\_4 (A6), Hank144\_2 (BD2), HarryHoudini\_5 (A2), HarryOW\_2 (A1), HaveUMetTed\_2 (A3), Heffalump\_5 (A2), Herbertwm\_1 (A2), Hercules11\_1 (A3), Hermia\_2 (A1), HermioneGrange\_2 (A1), Hexamo\_4 (A6), Homines\_2 (A1), Hookmount\_1 (A3), Hoot\_4 (A6), Hope4ever\_1 (A1), Huphlepuuff\_94 (S), Hutc2\_4 (A11), ILeeKay\_1 (A1), Ichabod\_2 (A1), IgnatiusPatJac\_1 (A1), Indra\_4 (A6), Insomnia\_4 (A11), Inyanga\_1 (A1), IronMan\_4 (A2), Isca\_1 (A3), Isiphiwo\_4 (A6), Issmi\_2 (BD2), Itza\_2 (BD6), Iwokeuplikedis\_5 (A2), JC27\_2 (A1), JF2\_1 (A3), JF4\_1 (A3), JHC117\_1 (A3), JSwag\_4 (A15), Jaan\_4 (A2), Jabith\_4 (A11), JackSparrow\_1 (A1), Janus\_3 (BD2), Jasper\_2 (A1), Jeeves\_4 (A14), Jeffabunny\_4 (A6), JeppNRM\_2 (A3), Jerm2\_2 (A1), Jerm\_5 (A2), Jevington\_3 (BD2), JewelBug\_4 (A6), JoieB\_93 (S), Jordennis\_4 (A6), Jorgensen\_2 (A1), Joselito\_4 (A11), JoshKayV\_5 (A2), Journey13\_4 (A2), Jsquared\_4 (A2), JuliaChild\_2 (A1), KADY\_2 (A3), KBG\_2 (A1), Kaine\_3 (BD3), Kalb97\_2 (A3), Kalpine\_4 (A2), Kanely\_3 (A1), KatherineG\_4 (A15), Kazan\_4 (A6), Kenmech\_2 (A1), Kerberos\_4 (A2), Killigrew\_1 (A1), Kimona\_1 (A19), KingCyrus\_5 (A2), Kipper29\_4 (A6), Koko\_4 (A6), Kugel\_1 (A1), KyMonks1A\_1 (A1), Kykar\_1 (A1), L5\_4 (A2), LadyBird\_4 (A2), Lambert1\_1 (A3), Lamina13\_2 (A1), Landor\_4 (A2), Larenn\_5 (A2), LarryKay\_1 (A3), LastResort\_4 (A15), Leogania\_4 (A2), Lesedi\_1 (A1), Leviathan\_5 (A2), Licorice\_2 (A1), LilBib\_1 (A1), LilTurb\_5 (A2), Lilbit\_90 (S), Lilbunny\_4 (A6), Lilith\_1 (A3), Lockley\_2 (A1), Lokk\_5 (A2), Loofah\_3 (BD2), Looper\_4 (A15), Lopton\_2 (A1), Loser\_4 (A2), Louie6\_1 (A3), Luchador\_4 (A14), Lucivia\_4 (A11), MA5\_1 (A3), MK4\_1 (A3), MPlant7149\_2 (A1), MaCh\_4 (A11), Magnar\_1 (A1), Mainiac\_1 (A3), Makemake\_2 (A1), Malec\_5 (A2), Malinsilva\_3 (A3), Manatee\_2 (A1), Manu\_2 (A3), MarQuardt\_1 (A3), Marav\_3 (BD2), Marcell\_2 (A1), Marchy\_2 (A1), Marge\_1 (A1), Margo\_1 (A3), Marius\_2 (A3), Maroc7\_1 (A1), Marvin\_86 (S), MaryBeth\_2 (A1), McFly\_4 (A6), McGuire\_2 (A1), MetalQZJ\_2 (A1), Methuselah\_1 (A3), Michley\_1 (A1), Microwolf\_1 (A3), MiculUcigas\_5 (A2), Miko\_5 (A2), MinecraftSteve\_5 (A15), MissWhite\_4 (A2), Mkhuseleli\_1 (A1), Molly\_2 (A1), Monet\_2 (A1), Moose\_1 (A1), Mryolo\_1 (A1), Mulciber\_4 (A11), Mule\_1 (A1), Munch\_4 (A11), Museum\_3 (A1), NEHalo\_2 (A1), NaSiaTalie\_5 (A2), Naira\_1 (A1), Naji\_4 (A2), Nebulosus\_4 (A15), Nedarya\_4 (A15), Neeharika16\_4 (A6), Nerujay\_1 (A1), Newrala\_4 (A6), Nhonho\_2 (A1), NicoleTera\_4 (A2), Nishikigoi\_2 (BD2), Niza\_3 (A1), Noella\_1 (A3), Norz\_2 (A1), Odin\_3 (A2), Ohno789\_1 (A1), OlanP\_1 (A3), Ollie\_1 (A3), Omar\_2 (BD2), Oogway\_1 (A1), PGHhamlin\_3 (A3), PSullivan\_2 (A1), Pablito\_2 (BD2), PacerPaul\_2 (A1), Paedore\_3 (BD2), Paolo\_3 (BD2), Paphu\_1 (A1), Paraselene\_1 (A1), Pari\_2 (A1), Parliament\_1 (A1), PascalRango\_2 (A1), PattyP\_2 (A1), Pavo\_3 (BD3), Payneful\_2 (A1), Pelly\_2 (A1), Penny1\_1 (A3), Pepe\_2 (A1), Perseus\_1 (A1), Peterson\_1 (A1), Petp2012\_2 (A1), Petruccio\_2 (A1), Ph8s\_4 (A2), Phaded\_4 (A2), PherrisBueller\_2 (A1), PhishRPhriends\_1 (A3), Phoxy\_1 (A3), Phranny\_2 (A3), PinkPlastic\_1 (A1), Pippin\_2 (A1), Piro94\_4 (A2), Pistachio\_1 (A3), Pita2\_2 (A1), Pmask\_4 (A6), Pocahontas\_1 (A3), Poise\_93 (S), Pomar16\_4 (A2), Power\_5 (A2), Priamo\_4 (A6), Pringar\_88 (S), ProMouse\_1 (A1), Provolone\_4 (BD3), Puginator\_3 (BD2), Pukovnik\_4 (A2), Puppy\_1 (A3), QTRlifeCrisis\_1 (A1), QueenB2\_5 (A2), QueenBeesly\_5 (A2), R4\_1 (BD2), Rachaly\_5 (A2), Raela\_94 (S), Raid\_3 (A1), Rajelicia\_2 (A1), ReMo\_4 (A15), Reba\_2 (A3), RedRaider77\_92 (S), RedRock\_4 (A2), Refuge\_4 (A12), Remus\_4 (A15), ResDef\_1 (A3), Retro23\_5 (A2), Rhyunn\_1 (A1), RidgeCB\_2 (A1), Rifter\_4 (A6), Ringer\_1 (A1), Rohr\_2 (A1), Roksolana\_4 (A6), Rosalind\_4 (A15), Rubeus\_2 (A1), Rufus\_2 (A1), Rutherford\_1 (A1), STLscum\_2 (A1), Sabinator\_1 (A3), Saftant\_2 (BD3), Sagefire\_2 (A1), Salz\_4 (A11), SarFire\_2



(A1), Scowl\_2 (A1), Seabiscuit\_2 (A1), Seanderson\_1 (A1), SemperFi\_5 (A2), Serenity\_4 (A2), Sham4\_4 (A11), ShayRa\_5 (A15), ShortQueendom\_1 (A1), Sibs6\_2 (A1), SkiPole\_2 (A1), Sknot\_6 (A2), Slagathor\_2 (A1), Smairt\_1 (A1), Smeagan\_5 (A2), Smeago1\_1 (A1), SmellyB\_4 (A6), SnapTap\_5 (A2), Snape\_4 (A11), Snazzy\_1 (A1), Solon\_1 (A1), SororFago\_4 (A14), Sorpresa\_1 (A1), Soups\_4 (A15), Speedwell\_3 (BD3), Spike509\_1 (A3), SpikeBT\_1 (A1), SqueakyClean\_3 (BD2), Squee\_1 (A1), Stagni\_1 (A3), StarStuff\_4 (A2), Steamy\_4 (A12), StepMih\_1 (A3), StewieG\_1 (A1), StrongArm\_1 (A1), Strosahl\_4 (A15), Sumter\_1 (A1), Sunshine924\_1 (A1), SuperAwesome\_4 (A6), SuperCallie99\_4 (A6), Superchunk\_4 (A2), SweetiePie\_5 (A2), SwissCheese\_1 (A1), Switzer\_2 (A1), Switzerland\_4 (A15), Swole\_2 (A1), TNguyen7\_1 (A3), Target\_2 (A1), TarsusIV\_5 (A2), Tasp14\_2 (A1), Teodoridan\_1 (A1), Tesla\_88 (S), TheloniousMonk\_2 (A1), Thestral\_2 (BD2), Thor\_2 (A1), Tiffany\_1 (A3), Timothy\_4 (A11), Timshel\_1 (A7), TinaBelcher\_2 (BD2), TinyTimmy\_4 (A11), TipsytheTRex\_4 (A2), Todacoro\_1 (A3), Tomathan\_4 (A2), Topgun\_1 (A1), Tote\_2 (A1), Traft412\_3 (A1), Travvers\_4 (A2), Treddle\_2 (A1), Tripl3t\_1 (A1), Triumph\_3 (BD2), Trixie\_4 (A2), Trooper\_5 (A2), TrvxScott\_2 (BD2), Tucker\_4 (A6), Turbido\_5 (A2), Turj99\_1 (A1), TwoPeat\_2 (A1), U2\_2 (A1), Updawg\_5 (A2), Urza\_2 (BD6), VA6\_4 (A2), VC3\_4 (A2), VasuNzinga\_90 (S), Verabelle\_3 (BD3), Verse\_2 (BD3), VieEnRose\_2 (BD6), Violet\_2 (A1), Vix\_1 (A3), VohminGhazi\_4 (A6), Waits\_4 (A15), Watermelon\_2 (A1), Watson\_1 (A3), WeiHuaDA\_5 (A2), Whabigail7\_5 (A2), Wheeler\_2 (A1), WideWale\_5 (A2), Wiks\_4 (A6), Wilkins\_1 (A1), WunderPhul\_4 (A6), XianYue\_4 (A2), Yecey3\_4 (A9), Yokurt\_4 (A6), Yosif\_3 (BD3), Zainub\_3 (BD2), Zaka\_4 (A6), Zeeculate\_1 (A1), Zephyr\_1 (A1), Zeuska\_1 (A1), Zulu\_4 (A6), phiHau3\_1 (BD4),

#### Start 159:

- Found in 3 of 954 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 3 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia\_169 (X), MyraDee\_1 (A18), Nebkiss\_165 (X),

#### Start 160:

- Found in 8 of 954 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 8 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Astro\_1 (A8), Dixon\_1 (A8), NearlyHeadless\_1 (A8), Phillis\_1 (A8), Roary\_1 (A8), Saintus\_1 (A8), Smeadley\_1 (A8), Stephig9\_1 (A8),

#### Start 161:

- Found in 4 of 954 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 4 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Footloose\_71 (singleton), Juicebox\_59 (singleton), MalagasyRose\_85 (AG), Nergal\_81 (AG),

#### Start 162:

- Found in 27 of 954 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 21 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus\_14 (CQ1), Aphelion\_14 (CQ1), Bachita\_15 (CQ1), Bantam\_8 (DL), BrutonGaster\_7 (CQ2), Cardigan\_14

(DD), ClubL\_14 (CQ1), Cucurbita\_13 (CQ1), Culver\_13 (CQ1), Daredevil\_10 (DL), DatBoi\_9 (DL), Dusty\_13 (CQ1), Engineer\_14 (CQ1), Geeche\_13 (CQ1), JonJames\_13 (DD), Lozinak\_14 (CQ1), Miskis\_16 (CQ1), Mollymur\_10 (DL), Norvs\_14 (CQ1), OneUp\_9 (CQ2), PhinkBoden\_15 (CQ1), Smoothie\_14 (CQ1), SpeedDemon\_90 (DL), Toniann\_14 (CQ1), Towmatter\_9 (DL), WilliamBoone\_12 (CQ1), Yvonnetastic\_14 (DD),

Start 163:

- Found in 6 of 954 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 5 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot\_101 (DN3), BearBQ\_102 (DN), Birdsong\_96 (DN), Crater\_100 (DN3), Kuwabara\_94 (DN4), MortyNRick\_99 (DN),

Start 164:

- Found in 9 of 954 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Airmid\_1 (A5),

Start 166:

- Found in 2 of 954 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 2 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Farewell\_96 (AF), Sparky\_95 (AF),

Start 167:

- Found in 16 of 954 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 16 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Angelique\_76 (CY1), Bradissa\_76 (CY1), BritBrat\_98 (CY2), Cashline\_76 (CY), EMsquaredA\_80 (CY1), EnalisNailo\_76 (CY1), Floral\_80 (CY1), Jablanski\_82 (CY), LonelyBoi\_78 (CY), LunaStella\_101 (F4), Pollux\_82 (CY1), Posh\_79 (CY), Pytheas\_83 (CY), Renaud18\_112 (F4), TChen\_101 (F4), Wrigley\_81 (CY),

Start 168:

- Found in 10 of 954 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 9 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abrogate\_20 (A1), Bernal13\_59 (T), DreamCatcher\_2 (A1), Ibrahim\_59 (T), Nairb\_57 (T), RonRayGun\_59 (T), Ruotula\_2 (A1), Sanya\_1 (A1), Whitty\_58 (T), ZenTime222\_65 (T),

Start 172:

- Found in 25 of 954 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 3 of 906
- Called 12.0% of time when present
- Phage (with cluster) where this start called: Bachome\_4 (A11), Ebony\_4 (A11), Orange\_4 (A11),

Start 173:

- Found in 1 of 954 ( 0.1% ) of genes in pham

- Manual Annotations of this start: 1 of 906
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mendokysei\_63 (T),

Start 174:

- Found in 5 of 954 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Yummy\_71 (CT),

Start 175:

- Found in 20 of 954 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 5.0% of time when present
- Phage (with cluster) where this start called: LittleLaf\_90 (S),

Start 178:

- Found in 27 of 954 ( 2.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.7% of time when present
- Phage (with cluster) where this start called: Jstan\_70 (AZ1),

Start 185:

- Found in 8 of 954 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 906
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Lauer\_66 (CT),

### **Summary by clusters:**

There are 56 clusters represented in this pham: DN, CZ8, BA, DD, CZ1, singleton, FA, DN3, A7, CY1, DL, FO, A15, A14, A17, AZ, A11, A10, A12, A19, A18, A1, BD4, A3, A2, BD1, A4, BD3, A6, A9, A8, CQ1, A, CY2, EO, EH, AG, AF, BD2, CZ, CY, A16, T, CQ2, X, A5, CT, A20, F4, S, BD6, AZ1, AZ2, AZ3, AZ4, DN4,

Info for manual annotations of cluster A:

- Start number 158 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A1:

- Start number 114 was manually annotated 4 times for cluster A1.
- Start number 122 was manually annotated 1 time for cluster A1.
- Start number 133 was manually annotated 3 times for cluster A1.
- Start number 155 was manually annotated 1 time for cluster A1.
- Start number 158 was manually annotated 194 times for cluster A1.
- Start number 168 was manually annotated 3 times for cluster A1.

Info for manual annotations of cluster A10:

- Start number 138 was manually annotated 15 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 158 was manually annotated 19 times for cluster A11.
- Start number 172 was manually annotated 3 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 155 was manually annotated 3 times for cluster A12.
- Start number 158 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 158 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 158 was manually annotated 21 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 154 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 159 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 158 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 158 was manually annotated 101 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 158 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 132 was manually annotated 31 times for cluster A3.
- Start number 137 was manually annotated 3 times for cluster A3.
- Start number 158 was manually annotated 63 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 94 was manually annotated 2 times for cluster A4.
- Start number 95 was manually annotated 1 time for cluster A4.
- Start number 153 was manually annotated 2 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 138 was manually annotated 25 times for cluster A5.
- Start number 164 was manually annotated 1 time for cluster A5.

Info for manual annotations of cluster A6:

- Start number 158 was manually annotated 41 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 146 was manually annotated 1 time for cluster A7.
- Start number 158 was manually annotated 3 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 160 was manually annotated 8 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 126 was manually annotated 3 times for cluster A9.
- Start number 154 was manually annotated 30 times for cluster A9.

- Start number 158 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AF:

- Start number 166 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AG:

- Start number 161 was manually annotated 2 times for cluster AG.

Info for manual annotations of cluster AZ:

- Start number 157 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 157 was manually annotated 43 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 157 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 157 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 151 was manually annotated 2 times for cluster AZ4.

- Start number 157 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster BD1:

- Start number 65 was manually annotated 2 times for cluster BD1.
- Start number 72 was manually annotated 1 time for cluster BD1.
- Start number 131 was manually annotated 1 time for cluster BD1.
- Start number 157 was manually annotated 51 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 105 was manually annotated 1 time for cluster BD2.
- Start number 149 was manually annotated 1 time for cluster BD2.
- Start number 158 was manually annotated 29 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 60 was manually annotated 1 time for cluster BD3.
- Start number 158 was manually annotated 10 times for cluster BD3.

Info for manual annotations of cluster BD4:

- Start number 158 was manually annotated 3 times for cluster BD4.

Info for manual annotations of cluster BD6:

- Start number 158 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster CQ1:

- Start number 162 was manually annotated 12 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 162 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CT:

- Start number 123 was manually annotated 1 time for cluster CT.
- Start number 127 was manually annotated 1 time for cluster CT.
- Start number 140 was manually annotated 2 times for cluster CT.
- Start number 143 was manually annotated 21 times for cluster CT.
- Start number 146 was manually annotated 8 times for cluster CT.
- Start number 174 was manually annotated 1 time for cluster CT.
- Start number 185 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY:

- Start number 167 was manually annotated 6 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 167 was manually annotated 6 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 167 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ:

- Start number 115 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 115 was manually annotated 25 times for cluster CZ1.

Info for manual annotations of cluster CZ8:

- Start number 115 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DD:

- Start number 162 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DL:

- Start number 162 was manually annotated 5 times for cluster DL.

Info for manual annotations of cluster DN:

- Start number 163 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN3:

- Start number 163 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 163 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster EH:

- Start number 157 was manually annotated 12 times for cluster EH.

Info for manual annotations of cluster EO:

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

Info for manual annotations of cluster F4:

- Start number 167 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster FA:

- Start number 115 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster S:

- Start number 157 was manually annotated 2 times for cluster S.
- Start number 158 was manually annotated 14 times for cluster S.
- Start number 175 was manually annotated 1 time for cluster S.

Info for manual annotations of cluster T:

- Start number 168 was manually annotated 6 times for cluster T.
- Start number 173 was manually annotated 1 time for cluster T.

Info for manual annotations of cluster X:

- Start number 159 was manually annotated 2 times for cluster X.

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

Gene: 20ES\_4 Start: 2483, Stop: 2779, Start Num: 158

Candidate Starts for 20ES\_4:

(Start: 158 @2483 has 512 MA's),

Gene: 40AC\_5 Start: 2296, Stop: 2592, Start Num: 158

Candidate Starts for 40AC\_5:

(Start: 158 @2296 has 512 MA's), (202, 2413),

Gene: AEgle\_67 Start: 42706, Stop: 43008, Start Num: 157

Candidate Starts for AEgle\_67:

(Start: 157 @42706 has 117 MA's), (178, 42757), (184, 42772), (201, 42823), (216, 42898), (231, 42997),

Gene: AFIS\_1 Start: 572, Stop: 895, Start Num: 133

Candidate Starts for AFIS\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (Start: 172 @632 has 3 MA's), (204, 722), (221, 812), (227, 848),

Gene: AN3\_4 Start: 2464, Stop: 2760, Start Num: 158

Candidate Starts for AN3\_4:

(Start: 158 @2464 has 512 MA's), (204, 2587),

Gene: AN9\_4 Start: 2344, Stop: 2640, Start Num: 158

Candidate Starts for AN9\_4:

(Start: 158 @2344 has 512 MA's),

Gene: ANI8\_4 Start: 2344, Stop: 2640, Start Num: 158

Candidate Starts for ANI8\_4:

(Start: 158 @2344 has 512 MA's),

Gene: Aaronocolus\_2 Start: 740, Stop: 1054, Start Num: 157

Candidate Starts for Aaronocolus\_2:

(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: AbbyPaige\_5 Start: 2538, Stop: 2834, Start Num: 158

Candidate Starts for AbbyPaige\_5:

(Start: 158 @2538 has 512 MA's), (204, 2661),

Gene: Abbysshoes\_2 Start: 758, Stop: 1054, Start Num: 158

Candidate Starts for Abbysshoes\_2:

(Start: 158 @758 has 512 MA's), (204, 881), (215, 935), (221, 971), (227, 1007),

Gene: Abrogate\_20 Start: 1334, Stop: 1624, Start Num: 168

Candidate Starts for Abrogate\_20:

(21, 899), (35, 1016), (82, 1172), (87, 1181), (89, 1184), (Start: 168 @1334 has 9 MA's), (177, 1361), (221, 1541), (227, 1577),

Gene: Abscondus\_14 Start: 3104, Stop: 3412, Start Num: 162

Candidate Starts for Abscondus\_14:

(130, 3074), (Start: 162 @3104 has 21 MA's), (227, 3368),

Gene: Acme\_2 Start: 781, Stop: 1089, Start Num: 158

Candidate Starts for Acme\_2:

(Start: 158 @781 has 512 MA's), (204, 904), (221, 994), (227, 1030),

Gene: Acolyte\_4 Start: 2122, Stop: 2418, Start Num: 158

Candidate Starts for Acolyte\_4:

(Start: 158 @2122 has 512 MA's),

Gene: Adahisdi\_1 Start: 600, Stop: 896, Start Num: 158

Candidate Starts for Adahisdi\_1:

(Start: 114 @537 has 4 MA's), (Start: 133 @573 has 3 MA's), (141, 582), (Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: Adolin\_71 Start: 42654, Stop: 42956, Start Num: 157

Candidate Starts for Adolin\_71:

(Start: 157 @42654 has 117 MA's), (201, 42771), (216, 42846), (231, 42945),

Gene: Adumb2043\_68 Start: 42731, Stop: 43033, Start Num: 157

Candidate Starts for Adumb2043\_68:

(Start: 157 @42731 has 117 MA's), (178, 42782), (184, 42797), (201, 42848), (216, 42923), (231, 43022),

Gene: Adzzy\_4 Start: 2160, Stop: 2456, Start Num: 158

Candidate Starts for Adzzy\_4:

(Start: 158 @2160 has 512 MA's), (212, 2328), (218, 2355),

Gene: Aeneas\_1 Start: 595, Stop: 891, Start Num: 158

Candidate Starts for Aeneas\_1:

(Start: 114 @532 has 4 MA's), (Start: 133 @568 has 3 MA's), (141, 577), (Start: 154 @592 has 33 MA's), (Start: 158 @595 has 512 MA's), (204, 718), (221, 808), (227, 844),

Gene: Agape74\_5 Start: 2538, Stop: 2834, Start Num: 158

Candidate Starts for Agape74\_5:

(Start: 158 @2538 has 512 MA's), (204, 2661),

Gene: Agatha\_71 Start: 46233, Stop: 46523, Start Num: 143

Candidate Starts for Agatha\_71:

(Start: 127 @46212 has 1 MA's), (Start: 143 @46233 has 21 MA's), (190, 46332),



Gene: AgentM\_1 Start: 504, Stop: 803, Start Num: 138

Candidate Starts for AgentM\_1:

(57, 372), (Start: 138 @504 has 40 MA's), (199, 612), (213, 684), (225, 753), (232, 798),

Gene: Aglet\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Aglet\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: AgronaGT15\_1 Start: 518, Stop: 820, Start Num: 132

Candidate Starts for AgronaGT15\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Agueybana\_85 Start: 52421, Stop: 52756, Start Num: 115

Candidate Starts for Agueybana\_85:

(25, 52148), (Start: 115 @52421 has 28 MA's),

Gene: Airmid\_1 Start: 517, Stop: 801, Start Num: 164

Candidate Starts for Airmid\_1:

(Start: 138 @502 has 40 MA's), (Start: 164 @517 has 1 MA's), (199, 610), (225, 751), (232, 796),

Gene: Ajay\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for Ajay\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 154 @593 has 33 MA's), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: Aliter\_4 Start: 2335, Stop: 2628, Start Num: 154

Candidate Starts for Aliter\_4:

(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Alma\_4 Start: 2333, Stop: 2626, Start Num: 154

Candidate Starts for Alma\_4:

(Start: 126 @2306 has 3 MA's), (Start: 154 @2333 has 33 MA's), (199, 2435), (204, 2453),

Gene: Alsaber\_3 Start: 970, Stop: 1284, Start Num: 158

Candidate Starts for Alsaber\_3:

(150, 964), (Start: 158 @970 has 512 MA's), (184, 1039), (206, 1114), (212, 1147),

Gene: Alsfro\_2 Start: 778, Stop: 1083, Start Num: 158

Candidate Starts for Alsfro\_2:

(145, 763), (Start: 158 @778 has 512 MA's), (204, 901), (215, 955), (221, 991), (227, 1027),

Gene: Altman\_3 Start: 1297, Stop: 1593, Start Num: 158

Candidate Starts for Altman\_3:

(Start: 122 @1249 has 1 MA's), (Start: 158 @1297 has 512 MA's), (204, 1420), (221, 1510), (227, 1546),

Gene: AlumE\_82 Start: 52312, Stop: 52647, Start Num: 115

Candidate Starts for AlumE\_82:

(25, 52039), (Start: 115 @52312 has 28 MA's),

Gene: Alvin\_3 Start: 1213, Stop: 1509, Start Num: 158

Candidate Starts for Alvin\_3:

(Start: 158 @1213 has 512 MA's), (204, 1336), (215, 1390), (221, 1426), (227, 1462),

Gene: Alvy\_3 Start: 740, Stop: 1054, Start Num: 158

Candidate Starts for Alvy\_3:

(Start: 158 @740 has 512 MA's), (206, 884),

Gene: Amela\_2 Start: 787, Stop: 1275, Start Num: 60

Candidate Starts for Amela\_2:

(Start: 60 @787 has 1 MA's), (61, 790), (63, 802), (66, 811), (91, 853), (96, 859), (150, 955), (Start: 158 @961 has 512 MA's), (184, 1030), (206, 1105), (212, 1138),

Gene: Amethyst\_2 Start: 650, Stop: 964, Start Num: 158

Candidate Starts for Amethyst\_2:

(Start: 149 @641 has 1 MA's), (Start: 158 @650 has 512 MA's), (196, 755), (206, 794), (212, 827),

Gene: Amok\_68 Start: 44983, Stop: 45258, Start Num: 143

Candidate Starts for Amok\_68:

(Start: 140 @44980 has 2 MA's), (Start: 143 @44983 has 21 MA's), (206, 45088),

Gene: Amyev\_68 Start: 43916, Stop: 44218, Start Num: 157

Candidate Starts for Amyev\_68:

(Start: 157 @43916 has 117 MA's), (184, 43982), (201, 44033), (213, 44099), (231, 44207),

Gene: Anaysia\_4 Start: 2278, Stop: 2574, Start Num: 158

Candidate Starts for Anaysia\_4:

(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Andris\_2 Start: 682, Stop: 996, Start Num: 158

Candidate Starts for Andris\_2:

(Start: 158 @682 has 512 MA's), (206, 826), (212, 859),

Gene: Aneem\_4 Start: 2356, Stop: 2652, Start Num: 158

Candidate Starts for Aneem\_4:

(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: Angelique\_76 Start: 50625, Stop: 50915, Start Num: 167

Candidate Starts for Angelique\_76:

(8, 50097), (13, 50157), (15, 50160), (22, 50208), (30, 50289), (36, 50322), (46, 50376), (51, 50388), (109, 50526), (Start: 167 @50625 has 16 MA's),

Gene: Anglerfish\_2 Start: 747, Stop: 1043, Start Num: 158

Candidate Starts for Anglerfish\_2:

(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),

Gene: Animus\_3 Start: 1027, Stop: 1341, Start Num: 158

Candidate Starts for Animus\_3:

(Start: 158 @1027 has 512 MA's), (184, 1096), (206, 1171),

Gene: AnnaL29\_4 Start: 2278, Stop: 2574, Start Num: 158

Candidate Starts for AnnaL29\_4:

(Start: 158 @2278 has 512 MA's), (204, 2401),

Gene: Anon\_4 Start: 2182, Stop: 2478, Start Num: 158

Candidate Starts for Anon\_4:  
(Start: 158 @2182 has 512 MA's), (206, 2317),

Gene: Anselm\_5 Start: 2674, Stop: 2970, Start Num: 158  
Candidate Starts for Anselm\_5:  
(Start: 158 @2674 has 512 MA's), (204, 2797),

Gene: Anthony\_1 Start: 406, Stop: 699, Start Num: 158  
Candidate Starts for Anthony\_1:  
(Start: 158 @406 has 512 MA's),

Gene: Antonio\_78 Start: 49950, Stop: 50285, Start Num: 115  
Candidate Starts for Antonio\_78:  
(25, 49677), (Start: 115 @49950 has 28 MA's),

Gene: Anubis\_3 Start: 526, Stop: 819, Start Num: 158  
Candidate Starts for Anubis\_3:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Aphelion\_14 Start: 3268, Stop: 3576, Start Num: 162  
Candidate Starts for Aphelion\_14:  
(130, 3238), (Start: 162 @3268 has 21 MA's), (216, 3460), (227, 3532),

Gene: Applejack\_1 Start: 597, Stop: 893, Start Num: 158  
Candidate Starts for Applejack\_1:  
(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Apricot\_101 Start: 51816, Stop: 52109, Start Num: 163  
Candidate Starts for Apricot\_101:  
(75, 51666), (Start: 163 @51816 has 5 MA's),

Gene: Aragog\_1 Start: 534, Stop: 833, Start Num: 138  
Candidate Starts for Aragog\_1:  
(57, 372), (Start: 138 @534 has 40 MA's), (199, 642), (213, 714), (225, 783), (232, 828),

Gene: Arcanine\_2 Start: 750, Stop: 1046, Start Num: 158  
Candidate Starts for Arcanine\_2:  
(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: ArcherNM\_4 Start: 2293, Stop: 2589, Start Num: 158  
Candidate Starts for ArcherNM\_4:  
(Start: 158 @2293 has 512 MA's),

Gene: Archetta\_1 Start: 534, Stop: 833, Start Num: 138  
Candidate Starts for Archetta\_1:  
(57, 372), (Start: 138 @534 has 40 MA's), (199, 642), (213, 714), (225, 783), (232, 828),

Gene: Arianna\_54 Start: 40153, Stop: 40458, Start Num: 148  
Candidate Starts for Arianna\_54:  
(Start: 148 @40153 has 3 MA's), (Start: 185 @40228 has 1 MA's), (196, 40249), (212, 40330),

Gene: Arissanae\_4 Start: 2121, Stop: 2414, Start Num: 154

Candidate Starts for Arissanae\_4:

(Start: 154 @2121 has 33 MA's), (199, 2223), (204, 2241),

Gene: Arlo\_2 Start: 747, Stop: 1043, Start Num: 158

Candidate Starts for Arlo\_2:

(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),

Gene: Artemis2UCLA\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Artemis2UCLA\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Asa16\_69 Start: 43233, Stop: 43535, Start Num: 157

Candidate Starts for Asa16\_69:

(Start: 157 @43233 has 117 MA's), (178, 43284), (184, 43299), (201, 43350), (216, 43425), (231, 43524),

Gene: Ascela\_71 Start: 43822, Stop: 44124, Start Num: 157

Candidate Starts for Ascela\_71:

(Start: 157 @43822 has 117 MA's), (184, 43888), (201, 43939), (216, 44014), (231, 44113),

Gene: Ashballe\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Ashballe\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Asten\_2 Start: 729, Stop: 1040, Start Num: 157

Candidate Starts for Asten\_2:

(Start: 65 @588 has 2 MA's), (79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (208, 882),

Gene: Astro\_1 Start: 505, Stop: 798, Start Num: 160

Candidate Starts for Astro\_1:

(Start: 160 @505 has 8 MA's), (192, 592), (213, 679), (227, 757), (232, 793),

Gene: Atkinbua\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for Atkinbua\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Attoomi\_53 Start: 41445, Stop: 41750, Start Num: 157

Candidate Starts for Attoomi\_53:

(Start: 157 @41445 has 117 MA's), (192, 41532), (193, 41538), (204, 41577), (206, 41589),

Gene: AugsMagnumOpus\_3 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for AugsMagnumOpus\_3:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Axiom\_3 Start: 679, Stop: 993, Start Num: 158

Candidate Starts for Axiom\_3:

(Start: 158 @679 has 512 MA's), (206, 823),

Gene: Axym\_69 Start: 46163, Stop: 46453, Start Num: 143

Candidate Starts for Axym\_69:

(Start: 127 @46142 has 1 MA's), (Start: 143 @46163 has 21 MA's), (190, 46262),

Gene: Azira\_67 Start: 45015, Stop: 45332, Start Num: 143  
Candidate Starts for Azira\_67:  
(Start: 143 @45015 has 21 MA's), (208, 45153), (220, 45222),

Gene: BABullseye\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for BABullseye\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: BPBiabs31\_2 Start: 832, Stop: 1128, Start Num: 158  
Candidate Starts for BPBiabs31\_2:  
(Start: 122 @784 has 1 MA's), (Start: 158 @832 has 512 MA's), (204, 955), (221, 1045), (227, 1081),

Gene: BabyBack\_4 Start: 2096, Stop: 2392, Start Num: 158  
Candidate Starts for BabyBack\_4:  
(Start: 158 @2096 has 512 MA's),

Gene: BabyRay\_1 Start: 458, Stop: 754, Start Num: 158  
Candidate Starts for BabyRay\_1:  
(Start: 131 @449 has 1 MA's), (Start: 158 @458 has 512 MA's), (206, 593),

Gene: Bachita\_15 Start: 3780, Stop: 4088, Start Num: 162  
Candidate Starts for Bachita\_15:  
(130, 3750), (Start: 162 @3780 has 21 MA's), (227, 4044),

Gene: Bachome\_4 Start: 2386, Stop: 2649, Start Num: 172  
Candidate Starts for Bachome\_4:  
(Start: 158 @2353 has 512 MA's), (Start: 172 @2386 has 3 MA's), (192, 2443), (232, 2644),

Gene: BaconJack\_2 Start: 750, Stop: 1046, Start Num: 158  
Candidate Starts for BaconJack\_2:  
(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: Bactobuster\_4 Start: 2106, Stop: 2402, Start Num: 158  
Candidate Starts for Bactobuster\_4:  
(Start: 158 @2106 has 512 MA's), (194, 2205), (218, 2301),

Gene: Baehexic\_5 Start: 2625, Stop: 2921, Start Num: 158  
Candidate Starts for Baehexic\_5:  
(59, 2424), (Start: 158 @2625 has 512 MA's),

Gene: Bantam\_8 Start: 4561, Stop: 4869, Start Num: 162  
Candidate Starts for Bantam\_8:  
(152, 4546), (Start: 162 @4561 has 21 MA's), (188, 4633), (207, 4699),

Gene: Barnstormer\_77 Start: 46434, Stop: 46733, Start Num: 157  
Candidate Starts for Barnstormer\_77:  
(119, 46389), (Start: 157 @46434 has 117 MA's), (197, 46542), (201, 46551),

Gene: Barriga\_2 Start: 749, Stop: 1045, Start Num: 158  
Candidate Starts for Barriga\_2:  
(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: BarryBee\_3 Start: 729, Stop: 1040, Start Num: 157  
Candidate Starts for BarryBee\_3:  
(Start: 65 @588 has 2 MA's), (79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (208, 882),

Gene: BartholomewSD\_3 Start: 740, Stop: 1054, Start Num: 158  
Candidate Starts for BartholomewSD\_3:  
(Start: 158 @740 has 512 MA's), (206, 884),

Gene: BatStarr\_83 Start: 53046, Stop: 53381, Start Num: 115  
Candidate Starts for BatStarr\_83:  
(25, 52773), (Start: 115 @53046 has 28 MA's), (202, 53232),

Gene: Battleship\_5 Start: 2425, Stop: 2721, Start Num: 158  
Candidate Starts for Battleship\_5:  
(Start: 158 @2425 has 512 MA's), (192, 2515),

Gene: BearBQ\_102 Start: 54695, Stop: 54988, Start Num: 163  
Candidate Starts for BearBQ\_102:  
(67, 54524), (Start: 163 @54695 has 5 MA's),

Gene: BeardedLady\_2 Start: 739, Stop: 1053, Start Num: 157  
Candidate Starts for BeardedLady\_2:  
(Start: 157 @739 has 117 MA's), (208, 895),

Gene: Beatrix\_1 Start: 599, Stop: 895, Start Num: 158  
Candidate Starts for Beatrix\_1:  
(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 154 @596 has 33 MA's), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Beauxregard13\_1 Start: 526, Stop: 819, Start Num: 158  
Candidate Starts for Beauxregard13\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Beelzebub\_96 Start: 49193, Stop: 49519, Start Num: 158  
Candidate Starts for Beelzebub\_96:  
(Start: 151 @49187 has 2 MA's), (Start: 158 @49193 has 512 MA's), (Start: 175 @49235 has 1 MA's), (189, 49280), (205, 49340), (214, 49400), (224, 49460),

Gene: Beemo\_4 Start: 2336, Stop: 2629, Start Num: 154  
Candidate Starts for Beemo\_4:  
(Start: 126 @2309 has 3 MA's), (Start: 154 @2336 has 33 MA's), (199, 2438), (204, 2456),

Gene: BeesKnees\_2 Start: 751, Stop: 1047, Start Num: 158  
Candidate Starts for BeesKnees\_2:  
(Start: 158 @751 has 512 MA's), (204, 874), (215, 928), (221, 964), (227, 1000),

Gene: Benedict\_1 Start: 503, Stop: 802, Start Num: 138  
Candidate Starts for Benedict\_1:  
(Start: 138 @503 has 40 MA's), (Start: 164 @518 has 1 MA's), (199, 611), (225, 752), (232, 797),

Gene: BengiVuitton\_4 Start: 2325, Stop: 2621, Start Num: 158  
Candidate Starts for BengiVuitton\_4:  
(Start: 158 @2325 has 512 MA's), (204, 2448),

Gene: Benvolio\_5 Start: 2672, Stop: 2968, Start Num: 158

Candidate Starts for Benvolio\_5:

(Start: 158 @2672 has 512 MA's), (204, 2795),

Gene: Bernal13\_59 Start: 40895, Stop: 41194, Start Num: 168

Candidate Starts for Bernal13\_59:

(Start: 168 @40895 has 9 MA's), (208, 41018),

Gene: Berrie\_69 Start: 43434, Stop: 43736, Start Num: 157

Candidate Starts for Berrie\_69:

(Start: 157 @43434 has 117 MA's), (184, 43500), (201, 43551), (216, 43626), (231, 43725),

Gene: Bethlehem\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for Bethlehem\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Bexan\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Bexan\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 154 @596 has 33 MA's), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Bialota\_79 Start: 51706, Stop: 52038, Start Num: 115

Candidate Starts for Bialota\_79:

(25, 51433), (Start: 115 @51706 has 28 MA's),

Gene: BiancaTri92\_4 Start: 2316, Stop: 2612, Start Num: 158

Candidate Starts for BiancaTri92\_4:

(Start: 158 @2316 has 512 MA's), (202, 2433),

Gene: Big3\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Big3\_1:

(Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: BigMau\_3 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for BigMau\_3:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: BigPaolini\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for BigPaolini\_1:

(Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: Bigfoot\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Bigfoot\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: BillKnuckles\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for BillKnuckles\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Bircsak\_2 Start: 835, Stop: 1131, Start Num: 158  
Candidate Starts for Bircsak\_2:  
(Start: 122 @787 has 1 MA's), (Start: 158 @835 has 512 MA's), (204, 958), (221, 1048), (227, 1084),

Gene: Birdsong\_96 Start: 52683, Stop: 52976, Start Num: 163  
Candidate Starts for Birdsong\_96:  
(67, 52512), (Start: 163 @52683 has 5 MA's),

Gene: Blackbeetle\_93 Start: 48691, Stop: 49017, Start Num: 158  
Candidate Starts for Blackbeetle\_93:  
(134, 48664), (Start: 158 @48691 has 512 MA's), (Start: 175 @48733 has 1 MA's), (189, 48778), (205, 48838), (214, 48898), (224, 48958),

Gene: Blinn1\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for Blinn1\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: BluSpix\_1 Start: 597, Stop: 893, Start Num: 158  
Candidate Starts for BluSpix\_1:  
(Start: 133 @570 has 3 MA's), (141, 579), (Start: 154 @594 has 33 MA's), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Blue\_3 Start: 1232, Stop: 1528, Start Num: 158  
Candidate Starts for Blue\_3:  
(145, 1217), (Start: 158 @1232 has 512 MA's), (204, 1355), (221, 1445), (227, 1481),

Gene: Blue7\_4 Start: 2132, Stop: 2428, Start Num: 158  
Candidate Starts for Blue7\_4:  
(Start: 158 @2132 has 512 MA's), (206, 2267),

Gene: BlueBird\_1 Start: 420, Stop: 716, Start Num: 158  
Candidate Starts for BlueBird\_1:  
(Start: 158 @420 has 512 MA's), (206, 555),

Gene: Bob3\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Bob3\_2:  
(Start: 158 @748 has 512 MA's), (221, 961), (227, 997),

Gene: BobSwaget\_5 Start: 2538, Stop: 2834, Start Num: 158  
Candidate Starts for BobSwaget\_5:  
(Start: 158 @2538 has 512 MA's),

Gene: BogosyJay\_4 Start: 2102, Stop: 2395, Start Num: 154  
Candidate Starts for BogosyJay\_4:  
(Start: 154 @2102 has 33 MA's), (199, 2204), (204, 2222),

Gene: Bones\_1 Start: 598, Stop: 894, Start Num: 158  
Candidate Starts for Bones\_1:  
(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Boohoo\_4 Start: 2278, Stop: 2574, Start Num: 158  
Candidate Starts for Boohoo\_4:



(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Bosnia\_82 Start: 54160, Stop: 54495, Start Num: 115

Candidate Starts for Bosnia\_82:

(25, 53887), (Start: 115 @54160 has 28 MA's), (202, 54346),

Gene: Bovely\_2 Start: 740, Stop: 1054, Start Num: 157

Candidate Starts for Bovely\_2:

(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: Bowden\_2 Start: 639, Stop: 953, Start Num: 158

Candidate Starts for Bowden\_2:

(Start: 158 @639 has 512 MA's), (206, 783),

Gene: Bowtie\_4 Start: 2356, Stop: 2652, Start Num: 158

Candidate Starts for Bowtie\_4:

(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: BoyNamedSue\_82 Start: 52312, Stop: 52647, Start Num: 115

Candidate Starts for BoyNamedSue\_82:

(25, 52039), (Start: 115 @52312 has 28 MA's),

Gene: Bradissa\_76 Start: 51528, Stop: 51818, Start Num: 167

Candidate Starts for Bradissa\_76:

(Start: 167 @51528 has 16 MA's),

Gene: Brataylor\_2 Start: 590, Stop: 1036, Start Num: 65

Candidate Starts for Brataylor\_2:

(62, 581), (Start: 65 @590 has 2 MA's), (Start: 157 @725 has 117 MA's), (186, 797), (195, 827), (204, 854),

Gene: BreSam8\_1 Start: 518, Stop: 820, Start Num: 132

Candidate Starts for BreSam8\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: BritBrat\_98 Start: 55168, Stop: 55455, Start Num: 167

Candidate Starts for BritBrat\_98:

(100, 55045), (128, 55111), (Start: 131 @55117 has 1 MA's), (Start: 167 @55168 has 16 MA's),

Gene: Briton15\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for Briton15\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (215, 925), (221, 961), (227, 997),

Gene: BroPlease\_1 Start: 591, Stop: 905, Start Num: 158

Candidate Starts for BroPlease\_1:

(Start: 158 @591 has 512 MA's), (200, 708), (206, 735), (223, 837), (235, 900),

Gene: Bruns\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for Bruns\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (215, 773), (221, 809), (227, 845),

Gene: BrutonGaster\_7 Start: 1661, Stop: 1969, Start Num: 162

Candidate Starts for BrutonGaster\_7:  
(Start: 95 @1544 has 1 MA's), (121, 1613), (Start: 162 @1661 has 21 MA's), (212, 1835), (219, 1871),  
(227, 1925), (231, 1961),

Gene: BryanRecycles\_2 Start: 746, Stop: 1060, Start Num: 157  
Candidate Starts for BryanRecycles\_2:  
(102, 668), (Start: 157 @746 has 117 MA's), (208, 902),

Gene: Bud\_4 Start: 2362, Stop: 2658, Start Num: 158  
Candidate Starts for Bud\_4:  
(Start: 158 @2362 has 512 MA's), (Start: 172 @2395 has 3 MA's), (192, 2452), (232, 2653),

Gene: Buggy\_5 Start: 2549, Stop: 2845, Start Num: 158  
Candidate Starts for Buggy\_5:  
(Start: 158 @2549 has 512 MA's), (204, 2672),

Gene: Bunnybear\_78 Start: 50882, Stop: 51217, Start Num: 115  
Candidate Starts for Bunnybear\_78:  
(25, 50609), (Start: 115 @50882 has 28 MA's),

Gene: Burnsey\_70 Start: 45875, Stop: 46165, Start Num: 143  
Candidate Starts for Burnsey\_70:  
(Start: 127 @45854 has 1 MA's), (Start: 143 @45875 has 21 MA's), (190, 45974),

Gene: Burton\_2 Start: 750, Stop: 1046, Start Num: 158  
Candidate Starts for Burton\_2:  
(Start: 158 @750 has 512 MA's), (221, 963), (227, 999),

Gene: Button\_71 Start: 45762, Stop: 46070, Start Num: 143  
Candidate Starts for Button\_71:  
(104, 45687), (Start: 123 @45732 has 1 MA's), (135, 45753), (Start: 143 @45762 has 21 MA's), (170,  
45807), (184, 45846), (201, 45876), (208, 45909), (216, 45960),

Gene: Buttons\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Buttons\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Buttrmlkdreams\_71 Start: 45701, Stop: 45979, Start Num: 140  
Candidate Starts for Buttrmlkdreams\_71:  
(Start: 140 @45701 has 2 MA's), (Start: 143 @45704 has 21 MA's), (169, 45746), (Start: 174 @45758  
has 1 MA's), (178, 45770), (208, 45821), (211, 45848), (212, 45851),

Gene: Bxb1\_1 Start: 599, Stop: 895, Start Num: 158  
Candidate Starts for Bxb1\_1:  
(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512  
MA's), (204, 722), (221, 812), (227, 848),

Gene: Bxz2\_1 Start: 537, Stop: 830, Start Num: 158  
Candidate Starts for Bxz2\_1:  
(Start: 132 @528 has 31 MA's), (Start: 158 @537 has 512 MA's), (184, 603),

Gene: C3\_04 Start: 2344, Stop: 2640, Start Num: 158  
Candidate Starts for C3\_04:

(Start: 158 @2344 has 512 MA's),

Gene: CRB1\_4 Start: 2473, Stop: 2769, Start Num: 158

Candidate Starts for CRB1\_4:

(Start: 158 @2473 has 512 MA's), (204, 2596),

Gene: CactusRose\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for CactusRose\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Caelum\_3 Start: 669, Stop: 983, Start Num: 158

Candidate Starts for Caelum\_3:

(Start: 140 @651 has 2 MA's), (Start: 149 @660 has 1 MA's), (Start: 158 @669 has 512 MA's), (206, 813), (212, 846),

Gene: Caliburn\_2 Start: 739, Stop: 1053, Start Num: 157

Candidate Starts for Caliburn\_2:

(Start: 157 @739 has 117 MA's), (208, 895),

Gene: Caprice\_85 Start: 48629, Stop: 48955, Start Num: 158

Candidate Starts for Caprice\_85:

(134, 48602), (Start: 158 @48629 has 512 MA's), (Start: 175 @48671 has 1 MA's), (189, 48716), (205, 48776), (214, 48836), (224, 48896),

Gene: Cardigan\_14 Start: 3818, Stop: 4126, Start Num: 162

Candidate Starts for Cardigan\_14:

(Start: 162 @3818 has 21 MA's), (212, 3992), (216, 4010), (220, 4031),

Gene: Carlyle\_2 Start: 778, Stop: 1074, Start Num: 158

Candidate Starts for Carlyle\_2:

(145, 763), (Start: 158 @778 has 512 MA's), (204, 901), (215, 955), (221, 991), (227, 1027),

Gene: Caron\_82 Start: 47300, Stop: 47599, Start Num: 157

Candidate Starts for Caron\_82:

(6, 46730), (9, 46799), (11, 46829), (25, 46961), (28, 46979), (55, 47102), (Start: 132 @47273 has 31 MA's), (Start: 157 @47300 has 117 MA's), (197, 47408), (201, 47417),

Gene: Cashline\_76 Start: 52028, Stop: 52315, Start Num: 167

Candidate Starts for Cashline\_76:

(43, 51776), (100, 51905), (128, 51971), (Start: 131 @51977 has 1 MA's), (136, 51983), (Start: 167 @52028 has 16 MA's), (179, 52058),

Gene: Cassia\_68 Start: 43117, Stop: 43419, Start Num: 157

Candidate Starts for Cassia\_68:

(Start: 157 @43117 has 117 MA's), (184, 43183), (216, 43309), (231, 43408),

Gene: Catalina\_4 Start: 2335, Stop: 2628, Start Num: 154

Candidate Starts for Catalina\_4:

(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Caviar\_1 Start: 445, Stop: 741, Start Num: 158

Candidate Starts for Caviar\_1:

(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Celery\_4 Start: 962, Stop: 1276, Start Num: 158

Candidate Starts for Celery\_4:

(63, 803), (66, 812), (91, 854), (96, 860), (150, 956), (Start: 158 @962 has 512 MA's), (184, 1031), (206, 1106), (212, 1139),

Gene: Celeste\_2 Start: 725, Stop: 1036, Start Num: 157

Candidate Starts for Celeste\_2:

(62, 581), (Start: 65 @590 has 2 MA's), (Start: 157 @725 has 117 MA's), (186, 797), (195, 827), (204, 854),

Gene: Celia\_2 Start: 744, Stop: 1058, Start Num: 158

Candidate Starts for Celia\_2:

(Start: 158 @744 has 512 MA's), (206, 888),

Gene: Centaur\_5 Start: 2621, Stop: 2917, Start Num: 158

Candidate Starts for Centaur\_5:

(59, 2420), (Start: 158 @2621 has 512 MA's),

Gene: Cerulean\_1 Start: 461, Stop: 763, Start Num: 153

Candidate Starts for Cerulean\_1:

(Start: 153 @461 has 2 MA's), (184, 536), (227, 722),

Gene: Chadwick\_1 Start: 501, Stop: 800, Start Num: 138

Candidate Starts for Chadwick\_1:

(Start: 138 @501 has 40 MA's), (Start: 164 @516 has 1 MA's), (199, 609), (225, 750), (232, 795),

Gene: ChampagnePapi\_1 Start: 355, Stop: 762, Start Num: 94

Candidate Starts for ChampagnePapi\_1:

(Start: 94 @355 has 2 MA's), (Start: 153 @460 has 2 MA's), (184, 535), (227, 721),

Gene: Chanagan\_2 Start: 749, Stop: 1045, Start Num: 158

Candidate Starts for Chanagan\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: Changeling\_4 Start: 2293, Stop: 2589, Start Num: 158

Candidate Starts for Changeling\_4:

(Start: 158 @2293 has 512 MA's),

Gene: Chargerpower\_5 Start: 2445, Stop: 2744, Start Num: 158

Candidate Starts for Chargerpower\_5:

(Start: 158 @2445 has 512 MA's),

Gene: Charm\_4 Start: 2108, Stop: 2401, Start Num: 154

Candidate Starts for Charm\_4:

(Start: 154 @2108 has 33 MA's), (192, 2195), (199, 2210), (204, 2228),

Gene: Che12\_4 Start: 2115, Stop: 2411, Start Num: 158

Candidate Starts for Che12\_4:

(Start: 158 @2115 has 512 MA's),

Gene: ChipMunk\_5 Start: 2559, Stop: 2855, Start Num: 158

Candidate Starts for ChipMunk\_5:  
(Start: 158 @2559 has 512 MA's), (204, 2682),

Gene: Chucky\_2 Start: 730, Stop: 1041, Start Num: 157  
Candidate Starts for Chucky\_2:  
(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (208, 883),

Gene: Chupacabra\_1 Start: 460, Stop: 756, Start Num: 138  
Candidate Starts for Chupacabra\_1:  
(Start: 138 @460 has 40 MA's),

Gene: Ciao\_1 Start: 598, Stop: 906, Start Num: 158  
Candidate Starts for Ciao\_1:  
(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Cindaradix\_1 Start: 358, Stop: 765, Start Num: 95  
Candidate Starts for Cindaradix\_1:  
(Start: 95 @358 has 1 MA's), (184, 538), (227, 724),

Gene: Clarkson\_93 Start: 48873, Stop: 49199, Start Num: 158  
Candidate Starts for Clarkson\_93:  
(Start: 151 @48867 has 2 MA's), (Start: 158 @48873 has 512 MA's), (Start: 175 @48915 has 1 MA's), (189, 48960), (205, 49020), (214, 49080), (224, 49140),

Gene: CloudWang3\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for CloudWang3\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: ClubL\_14 Start: 3280, Stop: 3588, Start Num: 162  
Candidate Starts for ClubL\_14:  
(130, 3250), (Start: 162 @3280 has 21 MA's), (227, 3544),

Gene: Colbster\_1 Start: 517, Stop: 819, Start Num: 132  
Candidate Starts for Colbster\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Colin\_5 Start: 2440, Stop: 2736, Start Num: 158  
Candidate Starts for Colin\_5:  
(Start: 158 @2440 has 512 MA's), (204, 2563),

Gene: Community\_70 Start: 43720, Stop: 44022, Start Num: 157  
Candidate Starts for Community\_70:  
(Start: 157 @43720 has 117 MA's), (184, 43786), (201, 43837), (216, 43912), (231, 44011),

Gene: Conan\_4 Start: 975, Stop: 1289, Start Num: 158  
Candidate Starts for Conan\_4:  
(62, 822), (78, 855), (86, 861), (91, 867), (150, 969), (Start: 158 @975 has 512 MA's), (184, 1044), (206, 1119), (212, 1152),

Gene: ConceptII\_2 Start: 835, Stop: 1131, Start Num: 158  
Candidate Starts for ConceptII\_2:  
(Start: 122 @787 has 1 MA's), (Start: 158 @835 has 512 MA's), (204, 958), (221, 1048), (227, 1084),

Gene: Conquerage\_4 Start: 2332, Stop: 2625, Start Num: 154  
Candidate Starts for Conquerage\_4:  
(Start: 126 @2305 has 3 MA's), (Start: 154 @2332 has 33 MA's), (199, 2434), (204, 2452),

Gene: Conspiracy\_1 Start: 535, Stop: 834, Start Num: 138  
Candidate Starts for Conspiracy\_1:  
(Start: 138 @535 has 40 MA's), (199, 643), (213, 715), (225, 784), (232, 829),

Gene: Coog\_1 Start: 503, Stop: 802, Start Num: 138  
Candidate Starts for Coog\_1:  
(55, 368), (Start: 138 @503 has 40 MA's), (199, 611), (213, 683), (225, 752), (232, 797),

Gene: Cookiedough\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for Cookiedough\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Corazon\_87 Start: 49067, Stop: 49393, Start Num: 158  
Candidate Starts for Corazon\_87:  
(Start: 151 @49061 has 2 MA's), (Start: 158 @49067 has 512 MA's), (Start: 175 @49109 has 1 MA's),  
(189, 49154), (205, 49214), (214, 49274), (224, 49334),

Gene: Corvo\_2 Start: 751, Stop: 1047, Start Num: 158  
Candidate Starts for Corvo\_2:  
(Start: 158 @751 has 512 MA's), (204, 874), (221, 964), (227, 1000),

Gene: Crater\_100 Start: 52160, Stop: 52453, Start Num: 163  
Candidate Starts for Crater\_100:  
(75, 52010), (Start: 163 @52160 has 5 MA's),

Gene: Crewmate\_74 Start: 43978, Stop: 44280, Start Num: 157  
Candidate Starts for Crewmate\_74:  
(Start: 157 @43978 has 117 MA's), (216, 44170), (231, 44269),

Gene: Crispicious1\_1 Start: 599, Stop: 895, Start Num: 158  
Candidate Starts for Crispicious1\_1:  
(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Crucio\_5 Start: 2567, Stop: 2863, Start Num: 158  
Candidate Starts for Crucio\_5:  
(Start: 158 @2567 has 512 MA's), (204, 2690),

Gene: Cuco\_1 Start: 533, Stop: 832, Start Num: 138  
Candidate Starts for Cuco\_1:  
(57, 371), (Start: 138 @533 has 40 MA's), (199, 641), (213, 713), (225, 782), (232, 827),

Gene: Cucurbita\_13 Start: 3280, Stop: 3588, Start Num: 162  
Candidate Starts for Cucurbita\_13:  
(130, 3250), (Start: 162 @3280 has 21 MA's), (227, 3544),

Gene: Cueyllyss\_1 Start: 598, Stop: 894, Start Num: 158  
Candidate Starts for Cueyllyss\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Cullens\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for Cullens\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Culver\_13 Start: 3104, Stop: 3412, Start Num: 162

Candidate Starts for Culver\_13:

(130, 3074), (Start: 162 @3104 has 21 MA's), (227, 3368),

Gene: Cyan\_70 Start: 43301, Stop: 43603, Start Num: 157

Candidate Starts for Cyan\_70:

(Start: 157 @43301 has 117 MA's), (178, 43352), (184, 43367), (201, 43418), (216, 43493), (231, 43592),

Gene: D29\_4 Start: 2345, Stop: 2641, Start Num: 158

Candidate Starts for D29\_4:

(Start: 158 @2345 has 512 MA's),

Gene: D32\_4 Start: 2345, Stop: 2641, Start Num: 158

Candidate Starts for D32\_4:

(Start: 158 @2345 has 512 MA's),

Gene: DBQu4n\_4 Start: 2345, Stop: 2641, Start Num: 158

Candidate Starts for DBQu4n\_4:

(Start: 158 @2345 has 512 MA's),

Gene: DD5\_2 Start: 739, Stop: 1035, Start Num: 158

Candidate Starts for DD5\_2:

(Start: 158 @739 has 512 MA's), (204, 862), (215, 916), (221, 952), (227, 988),

Gene: DaHudson\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for DaHudson\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: DaVinci\_4 Start: 2144, Stop: 2440, Start Num: 158

Candidate Starts for DaVinci\_4:

(Start: 158 @2144 has 512 MA's), (206, 2279),

Gene: Daishi\_1 Start: 518, Stop: 820, Start Num: 132

Candidate Starts for Daishi\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Dalmatian\_5 Start: 2671, Stop: 2967, Start Num: 158

Candidate Starts for Dalmatian\_5:

(Start: 158 @2671 has 512 MA's), (204, 2794),

Gene: Danzina\_2 Start: 679, Stop: 1011, Start Num: 131

Candidate Starts for Danzina\_2:

(1, 34), (3, 43), (4, 70), (7, 142), (31, 406), (39, 466), (45, 490), (48, 499), (112, 649), (Start: 131 @679 has 1 MA's), (Start: 157 @700 has 117 MA's), (193, 796), (195, 802), (204, 829), (216, 892),

Gene: Daredevil\_10 Start: 3047, Stop: 3349, Start Num: 162  
Candidate Starts for Daredevil\_10:  
(Start: 162 @3047 has 21 MA's), (182, 3104), (184, 3107), (212, 3215),

Gene: Darrell\_4 Start: 2217, Stop: 2510, Start Num: 154  
Candidate Starts for Darrell\_4:  
(Start: 154 @2217 has 33 MA's), (199, 2319), (204, 2337),

Gene: DarthPhader\_4 Start: 2246, Stop: 2542, Start Num: 155  
Candidate Starts for DarthPhader\_4:  
(Start: 155 @2246 has 4 MA's),

Gene: DatBoi\_9 Start: 5103, Stop: 5411, Start Num: 162  
Candidate Starts for DatBoi\_9:  
(86, 4968), (104, 5004), (Start: 162 @5103 has 21 MA's), (188, 5175), (231, 5400),

Gene: Dattran\_2 Start: 723, Stop: 1034, Start Num: 157  
Candidate Starts for Dattran\_2:  
(Start: 65 @588 has 2 MA's), (Start: 157 @723 has 117 MA's), (186, 795), (195, 825), (204, 852), (216, 915),

Gene: Daudau\_2 Start: 579, Stop: 968, Start Num: 105  
Candidate Starts for Daudau\_2:  
(Start: 105 @579 has 1 MA's), (Start: 149 @645 has 1 MA's), (Start: 158 @654 has 512 MA's), (206, 798),

Gene: DekHockey33\_4 Start: 2425, Stop: 2721, Start Num: 158  
Candidate Starts for DekHockey33\_4:  
(Start: 158 @2425 has 512 MA's), (192, 2515),

Gene: Deloris\_4 Start: 2325, Stop: 2621, Start Num: 158  
Candidate Starts for Deloris\_4:  
(Start: 158 @2325 has 512 MA's), (204, 2448),

Gene: Dexes\_2 Start: 782, Stop: 1078, Start Num: 158  
Candidate Starts for Dexes\_2:  
(Start: 158 @782 has 512 MA's), (204, 905), (221, 995), (227, 1031),

Gene: Diane\_2 Start: 652, Stop: 966, Start Num: 158  
Candidate Starts for Diane\_2:  
(Start: 149 @643 has 1 MA's), (Start: 158 @652 has 512 MA's), (206, 796), (212, 829),

Gene: Dieselweasel\_1 Start: 517, Stop: 819, Start Num: 132  
Candidate Starts for Dieselweasel\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Dignity\_5 Start: 2547, Stop: 2843, Start Num: 158  
Candidate Starts for Dignity\_5:  
(Start: 158 @2547 has 512 MA's), (204, 2670),

Gene: Discoknowium\_1 Start: 534, Stop: 833, Start Num: 138  
Candidate Starts for Discoknowium\_1:  
(57, 372), (Start: 138 @534 has 40 MA's), (199, 642), (213, 714), (225, 783), (232, 828),



Gene: Dixon\_1 Start: 505, Stop: 798, Start Num: 160  
Candidate Starts for Dixon\_1:  
(Start: 160 @505 has 8 MA's), (192, 592), (213, 679), (227, 757), (232, 793),

Gene: Doom\_1 Start: 596, Stop: 892, Start Num: 158  
Candidate Starts for Doom\_1:  
(Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809),  
(227, 845),

Gene: Dorothea\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for Dorothea\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: DrFeelGood\_1 Start: 596, Stop: 892, Start Num: 158  
Candidate Starts for DrFeelGood\_1:  
(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: DrManhattan\_72 Start: 42208, Stop: 42510, Start Num: 157  
Candidate Starts for DrManhattan\_72:  
(Start: 157 @42208 has 117 MA's), (201, 42325), (216, 42400), (231, 42499),

Gene: DrSierra\_66 Start: 42253, Stop: 42555, Start Num: 157  
Candidate Starts for DrSierra\_66:  
(Start: 157 @42253 has 117 MA's), (184, 42319), (201, 42370), (216, 42445), (231, 42544),

Gene: Drake55\_5 Start: 2627, Stop: 2923, Start Num: 158  
Candidate Starts for Drake55\_5:  
(59, 2426), (Start: 158 @2627 has 512 MA's),

Gene: Drake94\_1 Start: 472, Stop: 768, Start Num: 138  
Candidate Starts for Drake94\_1:  
(38, 247), (Start: 138 @472 has 40 MA's), (206, 607),

Gene: Dre3\_68 Start: 45474, Stop: 45806, Start Num: 143  
Candidate Starts for Dre3\_68:  
(129, 45456), (Start: 143 @45474 has 21 MA's),

Gene: DreamCatcher\_2 Start: 1332, Stop: 1622, Start Num: 168  
Candidate Starts for DreamCatcher\_2:  
(21, 897), (35, 1014), (82, 1170), (87, 1179), (89, 1182), (Start: 168 @1332 has 9 MA's), (177, 1359),  
(221, 1539), (227, 1575),

Gene: DreamTeam1\_4 Start: 2108, Stop: 2401, Start Num: 154  
Candidate Starts for DreamTeam1\_4:  
(Start: 154 @2108 has 33 MA's), (192, 2195), (199, 2210), (204, 2228),

Gene: Dreamboat\_2 Start: 863, Stop: 1171, Start Num: 158  
Candidate Starts for Dreamboat\_2:  
(Start: 122 @815 has 1 MA's), (Start: 158 @863 has 512 MA's), (204, 986), (221, 1076), (227, 1112),

Gene: DroogsArmy\_1 Start: 408, Stop: 704, Start Num: 158

Candidate Starts for DroogsArmy\_1:  
(91, 297), (Start: 158 @408 has 512 MA's), (225, 654), (230, 672),

Gene: DudeLittle\_5 Start: 2671, Stop: 2967, Start Num: 158  
Candidate Starts for DudeLittle\_5:  
(Start: 158 @2671 has 512 MA's), (204, 2794),

Gene: Dulcie\_1 Start: 596, Stop: 892, Start Num: 158  
Candidate Starts for Dulcie\_1:  
(113, 533), (Start: 132 @569 has 31 MA's), (139, 578), (Start: 158 @596 has 512 MA's), (204, 719),  
(227, 845),

Gene: Duplo\_4 Start: 2345, Stop: 2641, Start Num: 158  
Candidate Starts for Duplo\_4:  
(Start: 158 @2345 has 512 MA's),

Gene: Dussy\_2 Start: 758, Stop: 1054, Start Num: 158  
Candidate Starts for Dussy\_2:  
(Start: 158 @758 has 512 MA's), (204, 881), (215, 935), (221, 971), (227, 1007),

Gene: Dusty\_13 Start: 3104, Stop: 3412, Start Num: 162  
Candidate Starts for Dusty\_13:  
(130, 3074), (Start: 162 @3104 has 21 MA's), (227, 3368),

Gene: Dwayne\_2 Start: 730, Stop: 1041, Start Num: 157  
Candidate Starts for Dwayne\_2:  
(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (208, 883),

Gene: Dynamix\_2 Start: 747, Stop: 1043, Start Num: 158  
Candidate Starts for Dynamix\_2:  
(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),

Gene: EMSquaredA\_80 Start: 50168, Stop: 50458, Start Num: 167  
Candidate Starts for EMSquaredA\_80:  
(10, 49655), (24, 49805), (27, 49814), (29, 49841), (33, 49859), (37, 49883), (46, 49922), (51, 49934),  
(52, 49937), (109, 50072), (Start: 167 @50168 has 16 MA's),

Gene: EZMoney23\_4 Start: 2295, Stop: 2591, Start Num: 158  
Candidate Starts for EZMoney23\_4:  
(Start: 158 @2295 has 512 MA's),

Gene: EagleEye\_4 Start: 2125, Stop: 2418, Start Num: 154  
Candidate Starts for EagleEye\_4:  
(Start: 154 @2125 has 33 MA's), (184, 2191), (199, 2227), (204, 2245), (206, 2257),

Gene: Eaglepride\_1 Start: 473, Stop: 769, Start Num: 138  
Candidate Starts for Eaglepride\_1:  
(92, 386), (Start: 138 @473 has 40 MA's),

Gene: Ebony\_4 Start: 2395, Stop: 2658, Start Num: 172  
Candidate Starts for Ebony\_4:  
(Start: 158 @2362 has 512 MA's), (Start: 172 @2395 has 3 MA's), (192, 2452), (232, 2653),

Gene: Echild\_5 Start: 2672, Stop: 2968, Start Num: 158

Candidate Starts for Echild\_5:

(Start: 158 @2672 has 512 MA's), (204, 2795),

Gene: Eddasa\_2 Start: 746, Stop: 1060, Start Num: 157

Candidate Starts for Eddasa\_2:

(102, 668), (Start: 157 @746 has 117 MA's), (208, 902),

Gene: Edison31\_1 Start: 464, Stop: 760, Start Num: 138

Candidate Starts for Edison31\_1:

(Start: 138 @464 has 40 MA's),

Gene: Edtherson\_2 Start: 749, Stop: 1045, Start Num: 158

Candidate Starts for Edtherson\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: Eidsmoe\_4 Start: 2332, Stop: 2625, Start Num: 154

Candidate Starts for Eidsmoe\_4:

(Start: 126 @2305 has 3 MA's), (Start: 154 @2332 has 33 MA's), (199, 2434), (204, 2452),

Gene: Ejemplo\_2 Start: 730, Stop: 1041, Start Num: 157

Candidate Starts for Ejemplo\_2:

(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (195, 832), (204, 859), (216, 922),

Gene: ElGato\_4 Start: 978, Stop: 1292, Start Num: 158

Candidate Starts for ElGato\_4:

(62, 825), (78, 858), (86, 864), (91, 870), (150, 972), (Start: 158 @978 has 512 MA's), (184, 1047), (206, 1122), (212, 1155),

Gene: ElTiger69\_1 Start: 502, Stop: 801, Start Num: 138

Candidate Starts for ElTiger69\_1:

(Start: 138 @502 has 40 MA's), (Start: 164 @517 has 1 MA's), (199, 610), (225, 751), (232, 796),

Gene: Elephantoon\_4 Start: 2095, Stop: 2388, Start Num: 154

Candidate Starts for Elephantoon\_4:

(Start: 154 @2095 has 33 MA's), (199, 2197), (204, 2215),

Gene: Elezi\_68 Start: 43103, Stop: 43405, Start Num: 157

Candidate Starts for Elezi\_68:

(Start: 157 @43103 has 117 MA's), (178, 43154), (184, 43169), (201, 43220), (216, 43295), (231, 43394),

Gene: Elinal\_76 Start: 48006, Stop: 48332, Start Num: 146

Candidate Starts for Elinal\_76:

(135, 47994), (Start: 146 @48006 has 9 MA's), (165, 48030), (Start: 185 @48084 has 1 MA's), (196, 48111), (220, 48231),

Gene: Emaanora\_3 Start: 729, Stop: 1040, Start Num: 157

Candidate Starts for Emaanora\_3:

(Start: 65 @588 has 2 MA's), (79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (208, 882),

Gene: Emalyn\_67 Start: 43687, Stop: 43962, Start Num: 143

Candidate Starts for Emalyn\_67:

(Start: 140 @43684 has 2 MA's), (Start: 143 @43687 has 21 MA's), (206, 43792),

Gene: Emotion\_74 Start: 44679, Stop: 45029, Start Num: 157

Candidate Starts for Emotion\_74:

(Start: 157 @44679 has 117 MA's), (231, 44970),

Gene: EmyBug\_4 Start: 2332, Stop: 2625, Start Num: 154

Candidate Starts for EmyBug\_4:

(Start: 126 @2305 has 3 MA's), (Start: 154 @2332 has 33 MA's), (199, 2434), (204, 2452),

Gene: EnalisNailo\_76 Start: 50668, Stop: 50958, Start Num: 167

Candidate Starts for EnalisNailo\_76:

(30, 50335), (46, 50422), (51, 50434), (52, 50437), (109, 50572), (Start: 167 @50668 has 16 MA's),

Gene: Engineer\_14 Start: 3268, Stop: 3576, Start Num: 162

Candidate Starts for Engineer\_14:

(130, 3238), (Start: 162 @3268 has 21 MA's), (216, 3460), (227, 3532),

Gene: EnochSoames\_2 Start: 742, Stop: 1056, Start Num: 158

Candidate Starts for EnochSoames\_2:

(Start: 65 @613 has 2 MA's), (Start: 149 @733 has 1 MA's), (Start: 158 @742 has 512 MA's), (208, 898),

Gene: EpicPhail\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for EpicPhail\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Epsocamisio\_4 Start: 2278, Stop: 2574, Start Num: 158

Candidate Starts for Epsocamisio\_4:

(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Equemioh13\_5 Start: 2624, Stop: 2920, Start Num: 158

Candidate Starts for Equemioh13\_5:

(59, 2423), (Start: 158 @2624 has 512 MA's),

Gene: Eraser\_69 Start: 43240, Stop: 43542, Start Num: 157

Candidate Starts for Eraser\_69:

(Start: 157 @43240 has 117 MA's), (178, 43291), (184, 43306), (201, 43357), (216, 43432), (231, 43531),

Gene: EricB\_4 Start: 2144, Stop: 2440, Start Num: 158

Candidate Starts for EricB\_4:

(Start: 158 @2144 has 512 MA's), (206, 2279),

Gene: Esperer\_2 Start: 740, Stop: 1054, Start Num: 157

Candidate Starts for Esperer\_2:

(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: Espresso\_2 Start: 832, Stop: 1128, Start Num: 158

Candidate Starts for Espresso\_2:

(Start: 122 @784 has 1 MA's), (Start: 158 @832 has 512 MA's), (204, 955), (215, 1009), (221, 1045), (227, 1081),

Gene: Eudoria\_79 Start: 49950, Stop: 50285, Start Num: 115

Candidate Starts for Eudoria\_79:

(25, 49677), (Start: 115 @49950 has 28 MA's),

Gene: Euphoria\_2 Start: 736, Stop: 1032, Start Num: 158

Candidate Starts for Euphoria\_2:

(Start: 158 @736 has 512 MA's), (204, 859), (215, 913), (221, 949), (227, 985),

Gene: Eviarto\_84 Start: 53021, Stop: 53356, Start Num: 115

Candidate Starts for Eviarto\_84:

(25, 52748), (Start: 115 @53021 has 28 MA's), (202, 53207),

Gene: EvilGenius\_5 Start: 2559, Stop: 2855, Start Num: 158

Candidate Starts for EvilGenius\_5:

(Start: 158 @2559 has 512 MA's), (204, 2682),

Gene: Exile\_60 Start: 43770, Stop: 44069, Start Num: 157

Candidate Starts for Exile\_60:

(77, 43632), (Start: 157 @43770 has 117 MA's), (184, 43836), (201, 43887), (231, 44061),

Gene: ExplosioNervosa\_4 Start: 2308, Stop: 2628, Start Num: 126

Candidate Starts for ExplosioNervosa\_4:

(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Eyeball\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Eyeball\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Fajezeel\_2 Start: 749, Stop: 1057, Start Num: 158

Candidate Starts for Fajezeel\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: Fameo\_5 Start: 2671, Stop: 2967, Start Num: 158

Candidate Starts for Fameo\_5:

(Start: 158 @2671 has 512 MA's), (204, 2794),

Gene: Farber\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for Farber\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Farewell\_96 Start: 61361, Stop: 61663, Start Num: 166

Candidate Starts for Farewell\_96:

(58, 61136), (99, 61232), (110, 61265), (124, 61301), (128, 61307), (Start: 166 @61361 has 2 MA's), (179, 61394), (236, 61652),

Gene: Fascinus\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Fascinus\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Fayely\_4 Start: 2335, Stop: 2628, Start Num: 154

Candidate Starts for Fayely\_4:

(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: FeliMaine\_92 Start: 49115, Stop: 49441, Start Num: 158

Candidate Starts for FeliMaine\_92:

(Start: 151 @49109 has 2 MA's), (Start: 158 @49115 has 512 MA's), (Start: 175 @49157 has 1 MA's), (189, 49202), (205, 49262), (214, 49322), (224, 49382),

Gene: Fenn\_1 Start: 606, Stop: 902, Start Num: 158

Candidate Starts for Fenn\_1:

(Start: 114 @543 has 4 MA's), (Start: 133 @579 has 3 MA's), (141, 588), (Start: 158 @606 has 512 MA's), (204, 729), (215, 783), (221, 819), (227, 855),

Gene: Fernando\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Fernando\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Fibonacci\_4 Start: 2359, Stop: 2655, Start Num: 158

Candidate Starts for Fibonacci\_4:

(Start: 158 @2359 has 512 MA's), (Start: 172 @2392 has 3 MA's), (192, 2449), (232, 2650),

Gene: FiringLine\_5 Start: 2568, Stop: 2864, Start Num: 158

Candidate Starts for FiringLine\_5:

(Start: 158 @2568 has 512 MA's), (204, 2691),

Gene: First\_004 Start: 2483, Stop: 2779, Start Num: 158

Candidate Starts for First\_004:

(Start: 158 @2483 has 512 MA's),

Gene: Flare16\_5 Start: 2624, Stop: 2920, Start Num: 158

Candidate Starts for Flare16\_5:

(59, 2423), (Start: 158 @2624 has 512 MA's),

Gene: Flaverint\_4 Start: 2356, Stop: 2652, Start Num: 158

Candidate Starts for Flaverint\_4:

(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: Floof\_81 Start: 48040, Stop: 48342, Start Num: 157

Candidate Starts for Floof\_81:

(49, 47851), (Start: 94 @47941 has 2 MA's), (117, 47998), (Start: 157 @48040 has 117 MA's), (184, 48106), (206, 48181), (208, 48193),

Gene: Floral\_80 Start: 52125, Stop: 52415, Start Num: 167

Candidate Starts for Floral\_80:

(10, 51612), (24, 51762), (27, 51771), (29, 51798), (33, 51816), (37, 51840), (46, 51879), (51, 51891), (52, 51894), (109, 52029), (Start: 167 @52125 has 16 MA's),

Gene: FlyCatcher\_1 Start: 396, Stop: 692, Start Num: 146

Candidate Starts for FlyCatcher\_1:

(93, 300), (Start: 146 @396 has 9 MA's), (225, 642),

Gene: Footloose\_71 Start: 39222, Stop: 39524, Start Num: 161

Candidate Starts for Footloose\_71:

(Start: 161 @39222 has 4 MA's), (183, 39288), (212, 39393), (219, 39429),

Gene: ForGetIt\_1 Start: 561, Stop: 860, Start Num: 138

Candidate Starts for ForGetIt\_1:

(57, 372), (Start: 138 @561 has 40 MA's), (199, 669), (213, 741), (225, 810), (232, 855),

Gene: Forsytheast\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for Forsytheast\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (215, 773), (221, 809), (227, 845),

Gene: Francis47\_2 Start: 835, Stop: 1131, Start Num: 158

Candidate Starts for Francis47\_2:

(Start: 122 @787 has 1 MA's), (Start: 158 @835 has 512 MA's), (204, 958), (221, 1048), (227, 1084),

Gene: Fred313\_1 Start: 416, Stop: 712, Start Num: 137

Candidate Starts for Fred313\_1:

(74, 293), (Start: 131 @410 has 1 MA's), (Start: 137 @416 has 3 MA's), (206, 551),

Gene: Fribs8\_67 Start: 45643, Stop: 45981, Start Num: 143

Candidate Starts for Fribs8\_67:

(Start: 143 @45643 has 21 MA's), (208, 45781), (220, 45850),

Gene: Froghopper\_2 Start: 749, Stop: 1045, Start Num: 158

Candidate Starts for Froghopper\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: Fushigi\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for Fushigi\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: GageAP\_2 Start: 986, Stop: 1282, Start Num: 158

Candidate Starts for GageAP\_2:

(Start: 158 @986 has 512 MA's), (204, 1109), (221, 1199), (227, 1235),

Gene: Gaia\_169 Start: 83930, Stop: 84226, Start Num: 159

Candidate Starts for Gaia\_169:

(Start: 159 @83930 has 3 MA's), (176, 83975), (180, 83987), (197, 84041), (203, 84062), (206, 84077), (213, 84116), (216, 84125), (217, 84131),

Gene: Gail\_4 Start: 2396, Stop: 2692, Start Num: 158

Candidate Starts for Gail\_4:

(Start: 158 @2396 has 512 MA's), (197, 2498), (201, 2507), (202, 2513),

Gene: Gandalf20\_2 Start: 843, Stop: 1139, Start Num: 158

Candidate Starts for Gandalf20\_2:

(Start: 122 @795 has 1 MA's), (Start: 158 @843 has 512 MA's), (204, 966), (215, 1020), (221, 1056), (227, 1092),

Gene: GardenState\_76 Start: 44995, Stop: 45294, Start Num: 157

Candidate Starts for GardenState\_76:

(136, 44971), (Start: 157 @44995 has 117 MA's),

Gene: Gattaca\_91 Start: 49103, Stop: 49429, Start Num: 157

Candidate Starts for Gattaca\_91:

(Start: 157 @49103 has 117 MA's), (Start: 175 @49145 has 1 MA's), (189, 49190), (205, 49250), (214, 49310), (224, 49370),

Gene: GaugeLDP\_4 Start: 2092, Stop: 2388, Start Num: 158

Candidate Starts for GaugeLDP\_4:

(Start: 158 @2092 has 512 MA's),

Gene: Geeche\_13 Start: 3085, Stop: 3393, Start Num: 162

Candidate Starts for Geeche\_13:

(130, 3055), (Start: 162 @3085 has 21 MA's), (227, 3349),

Gene: Gemma\_1 Start: 522, Stop: 824, Start Num: 132

Candidate Starts for Gemma\_1:

(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Georgie2\_5 Start: 2570, Stop: 2866, Start Num: 158

Candidate Starts for Georgie2\_5:

(Start: 158 @2570 has 512 MA's), (204, 2693),

Gene: GiKK\_75 Start: 47115, Stop: 47441, Start Num: 123

Candidate Starts for GiKK\_75:

(104, 47070), (Start: 123 @47115 has 1 MA's), (135, 47136), (Start: 143 @47145 has 21 MA's), (170, 47190), (184, 47229), (190, 47244), (207, 47277), (210, 47304), (215, 47328), (216, 47331),

Gene: Gilberta\_4 Start: 2353, Stop: 2649, Start Num: 158

Candidate Starts for Gilberta\_4:

(Start: 158 @2353 has 512 MA's), (Start: 172 @2386 has 3 MA's), (192, 2443), (232, 2644),

Gene: GingkoMaracino\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for GingkoMaracino\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: GirlDinner\_2 Start: 690, Stop: 1004, Start Num: 158

Candidate Starts for GirlDinner\_2:

(Start: 158 @690 has 512 MA's), (184, 759), (206, 834),

Gene: Gladiator\_4 Start: 2133, Stop: 2429, Start Num: 158

Candidate Starts for Gladiator\_4:

(Start: 158 @2133 has 512 MA's), (206, 2268),

Gene: Goby\_2 Start: 723, Stop: 1034, Start Num: 157

Candidate Starts for Goby\_2:

(Start: 65 @588 has 2 MA's), (Start: 157 @723 has 117 MA's), (186, 795), (195, 825), (204, 852), (216, 915),

Gene: Godpower\_2 Start: 615, Stop: 1037, Start Num: 72

Candidate Starts for Godpower\_2:

(Start: 72 @615 has 1 MA's), (Start: 157 @726 has 117 MA's), (186, 798), (195, 828), (204, 855),

Gene: Gompeii16\_2 Start: 835, Stop: 1131, Start Num: 158

Candidate Starts for Gompeii16\_2:



(Start: 122 @787 has 1 MA's), (Start: 158 @835 has 512 MA's), (204, 958), (221, 1048), (227, 1084),

Gene: GoongGoong\_90 Start: 48909, Stop: 49235, Start Num: 157

Candidate Starts for GoongGoong\_90:

(Start: 157 @48909 has 117 MA's), (Start: 175 @48951 has 1 MA's), (189, 48996), (205, 49056), (214, 49116), (224, 49176),

Gene: Goose\_1 Start: 462, Stop: 758, Start Num: 138

Candidate Starts for Goose\_1:

(Start: 138 @462 has 40 MA's),

Gene: Graduation\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Graduation\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 154 @595 has 33 MA's), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: GrecoEtereo\_2 Start: 749, Stop: 1057, Start Num: 158

Candidate Starts for GrecoEtereo\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: GreedyLawyer\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for GreedyLawyer\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: GreenWeasel\_1 Start: 591, Stop: 905, Start Num: 158

Candidate Starts for GreenWeasel\_1:

(Start: 158 @591 has 512 MA's), (200, 708), (206, 735), (223, 837), (235, 900),

Gene: Greg\_2 Start: 749, Stop: 1057, Start Num: 158

Candidate Starts for Greg\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: Gretchen\_74 Start: 47033, Stop: 47335, Start Num: 157

Candidate Starts for Gretchen\_74:

(Start: 157 @47033 has 117 MA's), (184, 47099), (201, 47150), (206, 47174),

Gene: Grif\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Grif\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Groupthink\_2 Start: 531, Stop: 824, Start Num: 158

Candidate Starts for Groupthink\_2:

(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Grub\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Grub\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Grum1\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Grum1\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Gruunaga\_4 Start: 2133, Stop: 2429, Start Num: 158

Candidate Starts for Gruunaga\_4:  
(Start: 158 @2133 has 512 MA's), (206, 2268),

Gene: GtownJaz\_1 Start: 526, Stop: 819, Start Num: 158  
Candidate Starts for GtownJaz\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Gwendoluna\_1 Start: 600, Stop: 896, Start Num: 158  
Candidate Starts for Gwendoluna\_1:  
(Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: Gyzlar\_2 Start: 742, Stop: 1038, Start Num: 158  
Candidate Starts for Gyzlar\_2:  
(Start: 158 @742 has 512 MA's), (204, 865), (221, 955), (227, 991),

Gene: HINdeR\_1 Start: 411, Stop: 704, Start Num: 158  
Candidate Starts for HINdeR\_1:  
(Start: 158 @411 has 512 MA's), (182, 477), (225, 654), (230, 672),

Gene: Haizum\_2 Start: 652, Stop: 966, Start Num: 158  
Candidate Starts for Haizum\_2:  
(Start: 149 @643 has 1 MA's), (Start: 158 @652 has 512 MA's), (206, 796), (212, 829),

Gene: Hami1\_1 Start: 598, Stop: 894, Start Num: 158  
Candidate Starts for Hami1\_1:  
(113, 535), (Start: 132 @571 has 31 MA's), (139, 580), (Start: 158 @598 has 512 MA's), (204, 721),  
(221, 811), (227, 847),

Gene: Hammer\_4 Start: 2132, Stop: 2428, Start Num: 158  
Candidate Starts for Hammer\_4:  
(Start: 158 @2132 has 512 MA's), (206, 2267),

Gene: Hank144\_2 Start: 693, Stop: 1007, Start Num: 158  
Candidate Starts for Hank144\_2:  
(Start: 105 @618 has 1 MA's), (108, 624), (Start: 158 @693 has 512 MA's), (184, 762), (206, 837),  
(208, 849),

Gene: HarryHoudini\_5 Start: 2627, Stop: 2923, Start Num: 158  
Candidate Starts for HarryHoudini\_5:  
(59, 2426), (Start: 158 @2627 has 512 MA's),

Gene: HarryOW\_2 Start: 749, Stop: 1057, Start Num: 158  
Candidate Starts for HarryOW\_2:  
(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: HashRod\_2 Start: 518, Stop: 820, Start Num: 132  
Candidate Starts for HashRod\_2:  
(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: HaveUMetTed\_2 Start: 531, Stop: 824, Start Num: 158  
Candidate Starts for HaveUMetTed\_2:  
(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Heffalump\_5 Start: 2671, Stop: 2967, Start Num: 158

Candidate Starts for Heffalump\_5:

(Start: 158 @2671 has 512 MA's), (204, 2794),

Gene: Heliosoles\_1 Start: 522, Stop: 824, Start Num: 132

Candidate Starts for Heliosoles\_1:

(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Herbertwm\_1 Start: 414, Stop: 710, Start Num: 158

Candidate Starts for Herbertwm\_1:

(106, 327), (107, 330), (Start: 158 @414 has 512 MA's), (194, 513),

Gene: Hercules11\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Hercules11\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Hermia\_2 Start: 750, Stop: 1046, Start Num: 158

Candidate Starts for Hermia\_2:

(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: HermioneGrange\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for HermioneGrange\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Herod\_84 Start: 53440, Stop: 53775, Start Num: 115

Candidate Starts for Herod\_84:

(25, 53167), (Start: 115 @53440 has 28 MA's), (202, 53626),

Gene: Hexamo\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Hexamo\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Hippo\_2 Start: 729, Stop: 1040, Start Num: 157

Candidate Starts for Hippo\_2:

(79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (208, 882),

Gene: HippoPololi\_68 Start: 45087, Stop: 45419, Start Num: 143

Candidate Starts for HippoPololi\_68:

(Start: 143 @45087 has 21 MA's),

Gene: Homines\_2 Start: 832, Stop: 1128, Start Num: 158

Candidate Starts for Homines\_2:

(Start: 122 @784 has 1 MA's), (Start: 158 @832 has 512 MA's), (204, 955), (221, 1045), (227, 1081),

Gene: Honk\_82 Start: 49790, Stop: 50095, Start Num: 157

Candidate Starts for Honk\_82:

(97, 49700), (136, 49769), (Start: 157 @49790 has 117 MA's), (181, 49850),

Gene: Hookmount\_1 Start: 445, Stop: 741, Start Num: 158

Candidate Starts for Hookmount\_1:

(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Hoot\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Hoot\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Hope4ever\_1 Start: 600, Stop: 896, Start Num: 158

Candidate Starts for Hope4ever\_1:

(Start: 114 @537 has 4 MA's), (Start: 133 @573 has 3 MA's), (141, 582), (Start: 154 @597 has 33 MA's), (Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: Horseradish\_71 Start: 45465, Stop: 45743, Start Num: 140

Candidate Starts for Horseradish\_71:

(Start: 140 @45465 has 2 MA's), (Start: 143 @45468 has 21 MA's), (169, 45510), (Start: 174 @45522 has 1 MA's), (178, 45534), (208, 45585), (211, 45612), (212, 45615),

Gene: HortumSL17\_4 Start: 2335, Stop: 2628, Start Num: 154

Candidate Starts for HortumSL17\_4:

(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: HuhtaEnerson15\_1 Start: 535, Stop: 834, Start Num: 138

Candidate Starts for HuhtaEnerson15\_1:

(Start: 138 @535 has 40 MA's), (199, 643), (213, 715), (225, 784), (232, 829),

Gene: Huphlebuff\_94 Start: 48678, Stop: 49004, Start Num: 158

Candidate Starts for Huphlebuff\_94:

(Start: 151 @48672 has 2 MA's), (Start: 158 @48678 has 512 MA's), (Start: 175 @48720 has 1 MA's), (189, 48765), (205, 48825), (214, 48885), (224, 48945),

Gene: Hutc2\_4 Start: 2359, Stop: 2655, Start Num: 158

Candidate Starts for Hutc2\_4:

(Start: 158 @2359 has 512 MA's), (Start: 172 @2392 has 3 MA's), (192, 2449), (232, 2650),

Gene: Hydra\_3 Start: 739, Stop: 1053, Start Num: 157

Candidate Starts for Hydra\_3:

(Start: 157 @739 has 117 MA's), (208, 895),

Gene: Hyzer\_101 Start: 60183, Stop: 60518, Start Num: 115

Candidate Starts for Hyzer\_101:

(88, 60138), (Start: 115 @60183 has 28 MA's),

Gene: IAmGroot\_75 Start: 45197, Stop: 45496, Start Num: 157

Candidate Starts for IAmGroot\_75:

(136, 45173), (Start: 157 @45197 has 117 MA's),

Gene: ILeeKay\_1 Start: 547, Stop: 843, Start Num: 158

Candidate Starts for ILeeKay\_1:

(Start: 114 @484 has 4 MA's), (Start: 133 @520 has 3 MA's), (141, 529), (Start: 158 @547 has 512 MA's), (204, 670), (221, 760), (227, 796),

Gene: Ibrahim\_59 Start: 41099, Stop: 41398, Start Num: 168

Candidate Starts for Ibrahim\_59:

(Start: 168 @41099 has 9 MA's), (208, 41222),

Gene: Ichabod\_2 Start: 749, Stop: 1045, Start Num: 158

Candidate Starts for Ichabod\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (227, 998),

Gene: IgnatiusPatJac\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for IgnatiusPatJac\_1:

(Start: 133 @570 has 3 MA's), (141, 579), (Start: 154 @594 has 33 MA's), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Indigo\_2 Start: 740, Stop: 1054, Start Num: 157

Candidate Starts for Indigo\_2:

(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: Indra\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Indra\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Insomnia\_4 Start: 2356, Stop: 2652, Start Num: 158

Candidate Starts for Insomnia\_4:

(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: Inyanga\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Inyanga\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 154 @596 has 33 MA's), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: IronMan\_4 Start: 2114, Stop: 2410, Start Num: 158

Candidate Starts for IronMan\_4:

(Start: 158 @2114 has 512 MA's), (194, 2213), (218, 2309),

Gene: Isca\_1 Start: 420, Stop: 716, Start Num: 158

Candidate Starts for Isca\_1:

(87, 318), (Start: 132 @411 has 31 MA's), (Start: 158 @420 has 512 MA's), (206, 555),

Gene: Isiphiwo\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Isiphiwo\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Issmi\_2 Start: 651, Stop: 965, Start Num: 158

Candidate Starts for Issmi\_2:

(Start: 158 @651 has 512 MA's), (206, 795), (212, 828), (235, 960),

Gene: Iter\_70 Start: 43593, Stop: 43895, Start Num: 157

Candidate Starts for Iter\_70:

(Start: 157 @43593 has 117 MA's), (184, 43659), (201, 43710), (216, 43785), (231, 43884),

Gene: IttyBittyPiggy\_69 Start: 41834, Stop: 42145, Start Num: 157

Candidate Starts for IttyBittyPiggy\_69:

(Start: 157 @41834 has 117 MA's), (216, 42026), (231, 42125),

Gene: Itza\_2 Start: 744, Stop: 1058, Start Num: 158

Candidate Starts for Itza\_2:

(Start: 158 @744 has 512 MA's), (206, 888),

Gene: Iwokeuplikedis\_5 Start: 2364, Stop: 2660, Start Num: 158

Candidate Starts for Iwokeuplikedis\_5:

(Start: 158 @2364 has 512 MA's),

Gene: Izzy\_2 Start: 793, Stop: 1107, Start Num: 157

Candidate Starts for Izzy\_2:

(102, 715), (Start: 157 @793 has 117 MA's), (208, 949),

Gene: JC27\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for JC27\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: JF2\_1 Start: 419, Stop: 715, Start Num: 158

Candidate Starts for JF2\_1:

(74, 293), (Start: 131 @410 has 1 MA's), (Start: 158 @419 has 512 MA's), (206, 554),

Gene: JF4\_1 Start: 419, Stop: 715, Start Num: 158

Candidate Starts for JF4\_1:

(74, 293), (Start: 131 @410 has 1 MA's), (Start: 158 @419 has 512 MA's), (206, 554),

Gene: JHC117\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for JHC117\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: JSwag\_4 Start: 2278, Stop: 2574, Start Num: 158

Candidate Starts for JSwag\_4:

(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Jaan\_4 Start: 2110, Stop: 2406, Start Num: 158

Candidate Starts for Jaan\_4:

(Start: 158 @2110 has 512 MA's), (194, 2209), (218, 2305),

Gene: Jabiru\_1 Start: 502, Stop: 801, Start Num: 138

Candidate Starts for Jabiru\_1:

(Start: 138 @502 has 40 MA's), (Start: 164 @517 has 1 MA's), (199, 610), (225, 751), (232, 796),

Gene: Jabith\_4 Start: 2356, Stop: 2652, Start Num: 158

Candidate Starts for Jabith\_4:

(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: Jablanski\_82 Start: 53171, Stop: 53461, Start Num: 167

Candidate Starts for Jablanski\_82:

(128, 53114), (Start: 131 @53120 has 1 MA's), (Start: 167 @53171 has 16 MA's),

Gene: JackSparrow\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for JackSparrow\_1:

(Start: 132 @569 has 31 MA's), (139, 578), (Start: 153 @593 has 2 MA's), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: Jamzy\_76 Start: 46875, Stop: 47171, Start Num: 143

Candidate Starts for Jamzy\_76:

(104, 46800), (Start: 123 @46845 has 1 MA's), (135, 46866), (Start: 143 @46875 has 21 MA's), (170, 46920), (184, 46959), (190, 46974), (207, 47007), (210, 47034), (215, 47058), (216, 47061),

Gene: Janeemi\_69 Start: 43509, Stop: 43811, Start Num: 157  
Candidate Starts for Janeemi\_69:  
(Start: 157 @43509 has 117 MA's), (184, 43575), (201, 43626), (216, 43701), (231, 43800),

Gene: Janus\_3 Start: 1027, Stop: 1341, Start Num: 158  
Candidate Starts for Janus\_3:  
(Start: 158 @1027 has 512 MA's), (184, 1096), (206, 1171),

Gene: Jash\_2 Start: 746, Stop: 1060, Start Num: 157  
Candidate Starts for Jash\_2:  
(102, 668), (Start: 157 @746 has 117 MA's), (208, 902),

Gene: JasmineDragon\_70 Start: 43243, Stop: 43605, Start Num: 151  
Candidate Starts for JasmineDragon\_70:  
(80, 43126), (Start: 151 @43243 has 2 MA's), (181, 43312), (184, 43318), (228, 43513), (234, 43555),

Gene: Jasper\_2 Start: 863, Stop: 1171, Start Num: 158  
Candidate Starts for Jasper\_2:  
(Start: 122 @815 has 1 MA's), (Start: 158 @863 has 512 MA's), (204, 986), (221, 1076), (227, 1112),

Gene: Jeeves\_4 Start: 2418, Stop: 2714, Start Num: 158  
Candidate Starts for Jeeves\_4:  
(Start: 158 @2418 has 512 MA's), (201, 2529), (202, 2535),

Gene: Jeffabunny\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for Jeffabunny\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: JenCasNa\_1 Start: 517, Stop: 819, Start Num: 132  
Candidate Starts for JenCasNa\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: JeppNRM\_2 Start: 531, Stop: 824, Start Num: 158  
Candidate Starts for JeppNRM\_2:  
(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Jerm\_5 Start: 2548, Stop: 2844, Start Num: 158  
Candidate Starts for Jerm\_5:  
(Start: 158 @2548 has 512 MA's), (204, 2671),

Gene: Jerm2\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Jerm2\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Jevington\_3 Start: 1035, Stop: 1349, Start Num: 158  
Candidate Starts for Jevington\_3:  
(Start: 105 @963 has 1 MA's), (Start: 149 @1029 has 1 MA's), (Start: 158 @1035 has 512 MA's), (184, 1104), (206, 1179), (212, 1212),

Gene: JewelBug\_4 Start: 2144, Stop: 2440, Start Num: 158  
Candidate Starts for JewelBug\_4:  
(Start: 158 @2144 has 512 MA's), (206, 2279),

Gene: Jobu08\_1 Start: 517, Stop: 819, Start Num: 132  
Candidate Starts for Jobu08\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Joemato\_71 Start: 43479, Stop: 43781, Start Num: 157  
Candidate Starts for Joemato\_71:  
(Start: 157 @43479 has 117 MA's), (178, 43530), (184, 43545), (201, 43596), (216, 43671), (231, 43770),

Gene: JohnDoe\_70 Start: 43395, Stop: 43697, Start Num: 157  
Candidate Starts for JohnDoe\_70:  
(Start: 157 @43395 has 117 MA's), (178, 43446), (184, 43461), (201, 43512), (216, 43587), (231, 43686),

Gene: JoieB\_93 Start: 49278, Stop: 49604, Start Num: 158  
Candidate Starts for JoieB\_93:  
(134, 49251), (Start: 158 @49278 has 512 MA's), (Start: 175 @49320 has 1 MA's), (189, 49365), (205, 49425), (214, 49485), (224, 49545),

Gene: JonJames\_13 Start: 3969, Stop: 4277, Start Num: 162  
Candidate Starts for JonJames\_13:  
(Start: 162 @3969 has 21 MA's), (212, 4143), (216, 4161), (220, 4182),

Gene: Jordennis\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for Jordennis\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Jorgensen\_2 Start: 833, Stop: 1129, Start Num: 158  
Candidate Starts for Jorgensen\_2:  
(Start: 122 @785 has 1 MA's), (Start: 158 @833 has 512 MA's), (204, 956), (215, 1010), (221, 1046), (227, 1082),

Gene: Joselito\_4 Start: 2356, Stop: 2652, Start Num: 158  
Candidate Starts for Joselito\_4:  
(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: JoshKayV\_5 Start: 2563, Stop: 2859, Start Num: 158  
Candidate Starts for JoshKayV\_5:  
(Start: 158 @2563 has 512 MA's), (204, 2686),

Gene: Journey13\_4 Start: 2424, Stop: 2720, Start Num: 158  
Candidate Starts for Journey13\_4:  
(Start: 158 @2424 has 512 MA's), (192, 2514),

Gene: Jovo\_1 Start: 535, Stop: 834, Start Num: 138  
Candidate Starts for Jovo\_1:  
(Start: 138 @535 has 40 MA's), (199, 643), (213, 715), (225, 784), (232, 829),

Gene: Jsquared\_4 Start: 2327, Stop: 2623, Start Num: 158  
Candidate Starts for Jsquared\_4:  
(Start: 158 @2327 has 512 MA's),

Gene: Jstan\_70 Start: 43158, Stop: 43409, Start Num: 178



Candidate Starts for Jstan\_70:

(Start: 157 @43107 has 117 MA's), (178, 43158), (184, 43173), (201, 43224), (216, 43299), (231, 43398),

Gene: Juicebox\_59 Start: 41044, Stop: 41346, Start Num: 161

Candidate Starts for Juicebox\_59:

(147, 41038), (Start: 161 @41044 has 4 MA's), (212, 41221),

Gene: JuliaChild\_2 Start: 834, Stop: 1130, Start Num: 158

Candidate Starts for JuliaChild\_2:

(Start: 122 @786 has 1 MA's), (Start: 158 @834 has 512 MA's), (204, 957), (221, 1047), (227, 1083),

Gene: JuneStar\_68 Start: 44149, Stop: 44457, Start Num: 157

Candidate Starts for JuneStar\_68:

(47, 43936), (Start: 157 @44149 has 117 MA's), (184, 44215), (213, 44332), (216, 44341), (231, 44440),

Gene: KADY\_2 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for KADY\_2:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: KBG\_2 Start: 835, Stop: 1131, Start Num: 158

Candidate Starts for KBG\_2:

(Start: 122 @787 has 1 MA's), (Start: 158 @835 has 512 MA's), (204, 958), (221, 1048), (227, 1084),

Gene: KSSJEB\_1 Start: 580, Stop: 903, Start Num: 133

Candidate Starts for KSSJEB\_1:

(Start: 133 @580 has 3 MA's), (141, 589), (Start: 158 @607 has 512 MA's), (204, 730), (221, 820), (227, 856),

Gene: Kachowdy\_1 Start: 416, Stop: 712, Start Num: 137

Candidate Starts for Kachowdy\_1:

(74, 293), (Start: 131 @410 has 1 MA's), (Start: 137 @416 has 3 MA's), (206, 551),

Gene: Kaine\_3 Start: 968, Stop: 1282, Start Num: 158

Candidate Starts for Kaine\_3:

(42, 755), (55, 785), (150, 962), (Start: 158 @968 has 512 MA's), (184, 1037), (206, 1112), (212, 1145),

Gene: Kalb97\_2 Start: 528, Stop: 821, Start Num: 158

Candidate Starts for Kalb97\_2:

(Start: 132 @519 has 31 MA's), (Start: 158 @528 has 512 MA's), (184, 594),

Gene: Kalnoky\_2 Start: 522, Stop: 824, Start Num: 132

Candidate Starts for Kalnoky\_2:

(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Kalpine\_4 Start: 2560, Stop: 2856, Start Num: 158

Candidate Starts for Kalpine\_4:

(Start: 158 @2560 has 512 MA's),

Gene: Kanely\_3 Start: 1297, Stop: 1593, Start Num: 158

Candidate Starts for Kanely\_3:

(Start: 122 @1249 has 1 MA's), (Start: 158 @1297 has 512 MA's), (204, 1420), (221, 1510), (227, 1546),

Gene: Katalie\_2 Start: 726, Stop: 1040, Start Num: 157

Candidate Starts for Katalie\_2:

(64, 582), (Start: 157 @726 has 117 MA's), (186, 798), (208, 882),

Gene: KatherineG\_4 Start: 2425, Stop: 2721, Start Num: 158

Candidate Starts for KatherineG\_4:

(Start: 158 @2425 has 512 MA's), (192, 2515),

Gene: KayGee\_74 Start: 48035, Stop: 48361, Start Num: 146

Candidate Starts for KayGee\_74:

(135, 48023), (Start: 146 @48035 has 9 MA's), (165, 48059), (Start: 185 @48113 has 1 MA's), (196, 48140), (220, 48260),

Gene: Kaylissa\_71 Start: 43755, Stop: 44057, Start Num: 157

Candidate Starts for Kaylissa\_71:

(Start: 157 @43755 has 117 MA's), (178, 43806), (184, 43821), (201, 43872), (216, 43947), (231, 44046),

Gene: Kazan\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Kazan\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: KeAlii\_67 Start: 41473, Stop: 41784, Start Num: 157

Candidate Starts for KeAlii\_67:

(Start: 157 @41473 has 117 MA's), (184, 41539), (201, 41590), (231, 41764),

Gene: Kenmech\_2 Start: 758, Stop: 1054, Start Num: 158

Candidate Starts for Kenmech\_2:

(Start: 158 @758 has 512 MA's), (204, 881), (215, 935), (221, 971), (227, 1007),

Gene: Kerberos\_4 Start: 2345, Stop: 2641, Start Num: 158

Candidate Starts for Kerberos\_4:

(Start: 158 @2345 has 512 MA's),

Gene: Keziacharles14\_4 Start: 2212, Stop: 2505, Start Num: 154

Candidate Starts for Keziacharles14\_4:

(Start: 154 @2212 has 33 MA's), (192, 2299), (199, 2314), (204, 2332),

Gene: Killigrew\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for Killigrew\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: Kimona\_1 Start: 576, Stop: 872, Start Num: 158

Candidate Starts for Kimona\_1:

(Start: 131 @576 has 1 MA's), (Start: 158 @576 has 512 MA's), (Start: 172 @609 has 3 MA's), (206, 711), (225, 822),

Gene: KingCyrus\_5 Start: 2548, Stop: 2844, Start Num: 158

Candidate Starts for KingCyrus\_5:

(Start: 158 @2548 has 512 MA's), (204, 2671),

Gene: Kipper29\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Kipper29\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Kita\_80 Start: 49959, Stop: 50294, Start Num: 115

Candidate Starts for Kita\_80:

(25, 49686), (Start: 115 @49959 has 28 MA's),

Gene: KittenMittens\_1 Start: 472, Stop: 768, Start Num: 138

Candidate Starts for KittenMittens\_1:

(38, 247), (Start: 138 @472 has 40 MA's), (206, 607),

Gene: Koko\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Koko\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Kristoff\_2 Start: 629, Stop: 925, Start Num: 138

Candidate Starts for Kristoff\_2:

(Start: 95 @548 has 1 MA's), (Start: 138 @629 has 40 MA's),

Gene: Kugel\_1 Start: 596, Stop: 904, Start Num: 158

Candidate Starts for Kugel\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: Kuwabara\_94 Start: 53726, Stop: 54019, Start Num: 163

Candidate Starts for Kuwabara\_94:

(Start: 163 @53726 has 5 MA's),

Gene: KyMonks1A\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for KyMonks1A\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Kykar\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for Kykar\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: L5\_4 Start: 2332, Stop: 2628, Start Num: 158

Candidate Starts for L5\_4:

(Start: 158 @2332 has 512 MA's),

Gene: LBerry\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for LBerry\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: LHTSCC\_1 Start: 460, Stop: 762, Start Num: 153

Candidate Starts for LHTSCC\_1:

(Start: 94 @355 has 2 MA's), (Start: 153 @460 has 2 MA's), (184, 535), (227, 721),

Gene: LadyBird\_4 Start: 2463, Stop: 2759, Start Num: 158  
Candidate Starts for LadyBird\_4:  
(Start: 158 @2463 has 512 MA's), (204, 2586),

Gene: Lambert1\_1 Start: 445, Stop: 741, Start Num: 158  
Candidate Starts for Lambert1\_1:  
(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Lamina13\_2 Start: 750, Stop: 1046, Start Num: 158  
Candidate Starts for Lamina13\_2:  
(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: Landor\_4 Start: 2112, Stop: 2408, Start Num: 158  
Candidate Starts for Landor\_4:  
(Start: 158 @2112 has 512 MA's), (194, 2211), (218, 2307),

Gene: Lannister\_3 Start: 743, Stop: 1054, Start Num: 157  
Candidate Starts for Lannister\_3:  
(117, 701), (Start: 157 @743 has 117 MA's), (208, 896),

Gene: Larenn\_5 Start: 2579, Stop: 2875, Start Num: 158  
Candidate Starts for Larenn\_5:  
(Start: 158 @2579 has 512 MA's),

Gene: LarryKay\_1 Start: 527, Stop: 820, Start Num: 158  
Candidate Starts for LarryKay\_1:  
(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: LastResort\_4 Start: 2278, Stop: 2574, Start Num: 158  
Candidate Starts for LastResort\_4:  
(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Lauer\_66 Start: 47856, Stop: 48119, Start Num: 185  
Candidate Starts for Lauer\_66:  
(135, 47766), (Start: 146 @47778 has 9 MA's), (165, 47802), (Start: 185 @47856 has 1 MA's), (194, 47889), (220, 48015),

Gene: Legacy\_2 Start: 739, Stop: 1053, Start Num: 157  
Candidate Starts for Legacy\_2:  
(Start: 157 @739 has 117 MA's), (208, 895),

Gene: Lego\_69 Start: 43077, Stop: 43379, Start Num: 157  
Candidate Starts for Lego\_69:  
(Start: 157 @43077 has 117 MA's), (178, 43128), (184, 43143), (201, 43194), (216, 43269), (231, 43368),

Gene: Leogania\_4 Start: 2319, Stop: 2615, Start Num: 158  
Candidate Starts for Leogania\_4:  
(Start: 158 @2319 has 512 MA's), (202, 2436),

Gene: Lesedi\_1 Start: 599, Stop: 895, Start Num: 158  
Candidate Starts for Lesedi\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Lev2\_1 Start: 534, Stop: 833, Start Num: 138

Candidate Starts for Lev2\_1:

(57, 372), (Start: 138 @534 has 40 MA's), (199, 642), (213, 714), (225, 783), (232, 828),

Gene: Leviathan\_5 Start: 2547, Stop: 2843, Start Num: 158

Candidate Starts for Leviathan\_5:

(Start: 158 @2547 has 512 MA's), (204, 2670),

Gene: Leviticus\_2 Start: 740, Stop: 1054, Start Num: 157

Candidate Starts for Leviticus\_2:

(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: Licorice\_2 Start: 751, Stop: 1047, Start Num: 158

Candidate Starts for Licorice\_2:

(Start: 158 @751 has 512 MA's), (204, 874), (221, 964), (227, 1000),

Gene: Liebe\_69 Start: 45433, Stop: 45732, Start Num: 157

Candidate Starts for Liebe\_69:

(Start: 157 @45433 has 117 MA's), (184, 45499), (186, 45502), (214, 45619), (231, 45724),

Gene: Lika\_2 Start: 726, Stop: 1037, Start Num: 157

Candidate Starts for Lika\_2:

(Start: 72 @615 has 1 MA's), (Start: 157 @726 has 117 MA's), (186, 798), (195, 828), (204, 855),

Gene: LilBib\_1 Start: 600, Stop: 896, Start Num: 158

Candidate Starts for LilBib\_1:

(134, 573), (142, 582), (Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: LilTurb\_5 Start: 2548, Stop: 2844, Start Num: 158

Candidate Starts for LilTurb\_5:

(Start: 158 @2548 has 512 MA's), (204, 2671),

Gene: Lilbit\_90 Start: 49238, Stop: 49564, Start Num: 158

Candidate Starts for Lilbit\_90:

(Start: 151 @49232 has 2 MA's), (Start: 158 @49238 has 512 MA's), (Start: 175 @49280 has 1 MA's), (189, 49325), (205, 49385), (214, 49445), (224, 49505),

Gene: Lilbunny\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Lilbunny\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Lilith\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for Lilith\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: LittleCherry\_1 Start: 535, Stop: 834, Start Num: 138

Candidate Starts for LittleCherry\_1:

(Start: 138 @535 has 40 MA's), (199, 643), (213, 715), (225, 784), (232, 829),

Gene: LittleLaf\_90 Start: 49009, Stop: 49293, Start Num: 175

Candidate Starts for LittleLaf\_90:

(Start: 151 @48961 has 2 MA's), (Start: 158 @48967 has 512 MA's), (Start: 175 @49009 has 1 MA's), (189, 49054), (205, 49114), (214, 49174), (224, 49234),

Gene: Lizalica\_69 Start: 42687, Stop: 42989, Start Num: 157

Candidate Starts for Lizalica\_69:

(Start: 157 @42687 has 117 MA's), (178, 42738), (184, 42753), (201, 42804), (216, 42879), (231, 42978),

Gene: Lockley\_2 Start: 739, Stop: 1035, Start Num: 158

Candidate Starts for Lockley\_2:

(Start: 158 @739 has 512 MA's), (204, 862), (215, 916), (221, 952), (227, 988),

Gene: Lokk\_5 Start: 2540, Stop: 2836, Start Num: 158

Candidate Starts for Lokk\_5:

(Start: 158 @2540 has 512 MA's),

Gene: London\_69 Start: 43231, Stop: 43533, Start Num: 157

Candidate Starts for London\_69:

(Start: 157 @43231 has 117 MA's), (178, 43282), (184, 43297), (201, 43348), (216, 43423), (231, 43522),

Gene: LoneWolf\_4 Start: 2099, Stop: 2392, Start Num: 154

Candidate Starts for LoneWolf\_4:

(Start: 154 @2099 has 33 MA's), (199, 2201), (204, 2219),

Gene: LonelyBoi\_78 Start: 53256, Stop: 53543, Start Num: 167

Candidate Starts for LonelyBoi\_78:

(5, 52596), (11, 52755), (14, 52785), (100, 53133), (128, 53199), (Start: 131 @53205 has 1 MA's), (Start: 167 @53256 has 16 MA's),

Gene: Loofah\_3 Start: 682, Stop: 996, Start Num: 158

Candidate Starts for Loofah\_3:

(Start: 105 @604 has 1 MA's), (150, 673), (Start: 158 @682 has 512 MA's), (206, 826), (208, 838),

Gene: Looper\_4 Start: 2278, Stop: 2574, Start Num: 158

Candidate Starts for Looper\_4:

(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Lopton\_2 Start: 841, Stop: 1137, Start Num: 158

Candidate Starts for Lopton\_2:

(Start: 122 @793 has 1 MA's), (Start: 158 @841 has 512 MA's), (204, 964), (221, 1054), (227, 1090),

Gene: Lorelei\_2 Start: 726, Stop: 1037, Start Num: 157

Candidate Starts for Lorelei\_2:

(Start: 65 @591 has 2 MA's), (Start: 157 @726 has 117 MA's), (186, 798), (195, 828), (208, 879),

Gene: Loser\_4 Start: 2277, Stop: 2573, Start Num: 158

Candidate Starts for Loser\_4:

(Start: 158 @2277 has 512 MA's), (204, 2400),

Gene: Louie6\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for Louie6\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Lozinak\_14 Start: 3268, Stop: 3576, Start Num: 162

Candidate Starts for Lozinak\_14:

(130, 3238), (Start: 162 @3268 has 21 MA's), (216, 3460), (227, 3532),

Gene: Luchador\_4 Start: 2402, Stop: 2698, Start Num: 158

Candidate Starts for Luchador\_4:

(Start: 158 @2402 has 512 MA's), (197, 2504), (201, 2513), (202, 2519),

Gene: Lucivia\_4 Start: 2353, Stop: 2649, Start Num: 158

Candidate Starts for Lucivia\_4:

(Start: 158 @2353 has 512 MA's), (Start: 172 @2386 has 3 MA's), (192, 2443), (232, 2644),

Gene: Lucyedi\_4 Start: 2125, Stop: 2418, Start Num: 154

Candidate Starts for Lucyedi\_4:

(Start: 154 @2125 has 33 MA's), (184, 2191), (199, 2227), (204, 2245), (206, 2257),

Gene: LugYA\_3 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for LugYA\_3:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: LunaStella\_101 Start: 55262, Stop: 55549, Start Num: 167

Candidate Starts for LunaStella\_101:

(16, 54791), (41, 54992), (56, 55031), (76, 55097), (77, 55100), (Start: 131 @55211 has 1 MA's),  
(Start: 167 @55262 has 16 MA's),

Gene: MA5\_1 Start: 429, Stop: 725, Start Num: 158

Candidate Starts for MA5\_1:

(Start: 131 @420 has 1 MA's), (Start: 158 @429 has 512 MA's), (184, 498), (206, 564),

Gene: MAnor\_73 Start: 48015, Stop: 48329, Start Num: 146

Candidate Starts for MAnor\_73:

(135, 48003), (Start: 146 @48015 has 9 MA's), (198, 48114), (215, 48201),

Gene: MK4\_1 Start: 419, Stop: 715, Start Num: 158

Candidate Starts for MK4\_1:

(74, 293), (Start: 131 @410 has 1 MA's), (Start: 158 @419 has 512 MA's), (206, 554),

Gene: MPlant7149\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for MPlant7149\_2:

(Start: 158 @748 has 512 MA's), (221, 961), (227, 997),

Gene: MaCh\_4 Start: 2353, Stop: 2649, Start Num: 158

Candidate Starts for MaCh\_4:

(Start: 158 @2353 has 512 MA's), (Start: 172 @2386 has 3 MA's), (192, 2443), (232, 2644),

Gene: MaGuCo\_63 Start: 43554, Stop: 43853, Start Num: 157

Candidate Starts for MaGuCo\_63:

(Start: 157 @43554 has 117 MA's), (184, 43620), (186, 43623), (214, 43740), (231, 43845),

Gene: Mabodamaca\_75 Start: 48569, Stop: 48868, Start Num: 157

Candidate Starts for Mabodamaca\_75:

(37, 48311), (Start: 157 @48569 has 117 MA's), (184, 48635), (201, 48686), (216, 48761),

Gene: MadMarie\_1 Start: 518, Stop: 820, Start Num: 132

Candidate Starts for MadMarie\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Madeline\_76 Start: 51284, Stop: 51616, Start Num: 115

Candidate Starts for Madeline\_76:

(18, 50948), (25, 51011), (Start: 115 @51284 has 28 MA's),

Gene: Magnar\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Magnar\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Magnito\_1 Start: 535, Stop: 894, Start Num: 114

Candidate Starts for Magnito\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Mainiac\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for Mainiac\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Makemake\_2 Start: 1064, Stop: 1360, Start Num: 158

Candidate Starts for Makemake\_2:

(Start: 132 @1034 has 31 MA's), (139, 1043), (Start: 153 @1058 has 2 MA's), (Start: 158 @1064 has 512 MA's), (204, 1187), (227, 1313),

Gene: MalagasyRose\_85 Start: 53161, Stop: 53499, Start Num: 161

Candidate Starts for MalagasyRose\_85:

(81, 53017), (83, 53020), (104, 53065), (118, 53101), (144, 53140), (Start: 161 @53161 has 4 MA's), (193, 53260), (209, 53341),

Gene: Malec\_5 Start: 2579, Stop: 2875, Start Num: 158

Candidate Starts for Malec\_5:

(Start: 158 @2579 has 512 MA's),

Gene: Malinsilva\_3 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Malinsilva\_3:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Maminiaina\_4 Start: 2102, Stop: 2395, Start Num: 154

Candidate Starts for Maminiaina\_4:

(Start: 154 @2102 has 33 MA's), (199, 2204), (204, 2222),

Gene: Manasvini\_81 Start: 49974, Stop: 50309, Start Num: 115

Candidate Starts for Manasvini\_81:

(25, 49701), (Start: 115 @49974 has 28 MA's),

Gene: Manatee\_2 Start: 747, Stop: 1043, Start Num: 158

Candidate Starts for Manatee\_2:

(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),



Gene: Maneekul\_2 Start: 729, Stop: 1040, Start Num: 157

Candidate Starts for Maneekul\_2:

(79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (195, 831), (204, 858), (216, 921),

Gene: Manu\_2 Start: 531, Stop: 824, Start Num: 158

Candidate Starts for Manu\_2:

(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: MarQuardt\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for MarQuardt\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Marav\_3 Start: 1035, Stop: 1349, Start Num: 158

Candidate Starts for Marav\_3:

(79, 909), (Start: 105 @963 has 1 MA's), (Start: 149 @1029 has 1 MA's), (Start: 158 @1035 has 512 MA's), (184, 1104), (206, 1179), (212, 1212),

Gene: Marcell\_2 Start: 743, Stop: 1039, Start Num: 158

Candidate Starts for Marcell\_2:

(Start: 158 @743 has 512 MA's), (204, 866), (221, 956), (227, 992),

Gene: Marchy\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for Marchy\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Margaret\_75 Start: 46622, Stop: 46930, Start Num: 143

Candidate Starts for Margaret\_75:

(84, 46505), (101, 46538), (104, 46547), (Start: 123 @46592 has 1 MA's), (135, 46613), (Start: 143 @46622 has 21 MA's), (170, 46667), (184, 46706), (190, 46721), (199, 46730), (201, 46736), (208, 46769),

Gene: Marge\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Marge\_1:

(Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Margo\_1 Start: 445, Stop: 741, Start Num: 158

Candidate Starts for Margo\_1:

(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Maridalia\_83 Start: 51242, Stop: 51577, Start Num: 115

Candidate Starts for Maridalia\_83:

(25, 50969), (Start: 115 @51242 has 28 MA's),

Gene: Marie\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for Marie\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Marius\_2 Start: 531, Stop: 824, Start Num: 158

Candidate Starts for Marius\_2:

(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Maroc7\_1 Start: 600, Stop: 896, Start Num: 158

Candidate Starts for Maroc7\_1:

(Start: 114 @537 has 4 MA's), (Start: 133 @573 has 3 MA's), (141, 582), (Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: Marsha\_2 Start: 1060, Stop: 1356, Start Num: 155

Candidate Starts for Marsha\_2:

(Start: 132 @1033 has 31 MA's), (139, 1042), (Start: 153 @1057 has 2 MA's), (Start: 155 @1060 has 4 MA's), (204, 1183), (227, 1309),

Gene: Marvin\_86 Start: 48763, Stop: 49089, Start Num: 158

Candidate Starts for Marvin\_86:

(Start: 151 @48757 has 2 MA's), (Start: 158 @48763 has 512 MA's), (Start: 175 @48805 has 1 MA's), (189, 48850), (205, 48910), (214, 48970), (224, 49030),

Gene: MaryBeth\_2 Start: 751, Stop: 1047, Start Num: 158

Candidate Starts for MaryBeth\_2:

(Start: 158 @751 has 512 MA's), (204, 874), (221, 964), (227, 1000),

Gene: Maureen\_69 Start: 45432, Stop: 45731, Start Num: 157

Candidate Starts for Maureen\_69:

(Start: 157 @45432 has 117 MA's), (184, 45498), (186, 45501), (214, 45618), (231, 45723),

Gene: Mayweather\_74 Start: 48037, Stop: 48378, Start Num: 146

Candidate Starts for Mayweather\_74:

(135, 48025), (Start: 146 @48037 has 9 MA's), (165, 48061), (Start: 185 @48115 has 1 MA's), (196, 48154), (220, 48274),

Gene: McFly\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for McFly\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: McGuire\_2 Start: 749, Stop: 1045, Start Num: 158

Candidate Starts for McGuire\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (215, 926), (221, 962), (227, 998),

Gene: Mendokysei\_63 Start: 42026, Stop: 42310, Start Num: 173

Candidate Starts for Mendokysei\_63:

(12, 41501), (17, 41540), (19, 41567), (32, 41678), (109, 41906), (Start: 173 @42026 has 1 MA's), (208, 42134), (213, 42173),

Gene: MetalQZJ\_2 Start: 751, Stop: 1047, Start Num: 158

Candidate Starts for MetalQZJ\_2:

(Start: 158 @751 has 512 MA's), (204, 874), (221, 964), (227, 1000),

Gene: Methuselah\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for Methuselah\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Michley\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for Michley\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Microwolf\_1 Start: 526, Stop: 819, Start Num: 158  
Candidate Starts for Microwolf\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: MiculUcigas\_5 Start: 2624, Stop: 2920, Start Num: 158  
Candidate Starts for MiculUcigas\_5:  
(59, 2423), (Start: 158 @2624 has 512 MA's),

Gene: Midas2\_1 Start: 503, Stop: 802, Start Num: 138  
Candidate Starts for Midas2\_1:  
(55, 368), (Start: 138 @503 has 40 MA's), (199, 611), (213, 683), (225, 752), (232, 797),

Gene: Miko\_5 Start: 2518, Stop: 2814, Start Num: 158  
Candidate Starts for Miko\_5:  
(Start: 158 @2518 has 512 MA's),

Gene: Milcery\_1 Start: 534, Stop: 833, Start Num: 138  
Candidate Starts for Milcery\_1:  
(57, 372), (Start: 138 @534 has 40 MA's), (199, 642), (213, 714), (225, 783), (232, 828),

Gene: MinecraftSteve\_5 Start: 2425, Stop: 2721, Start Num: 158  
Candidate Starts for MinecraftSteve\_5:  
(Start: 158 @2425 has 512 MA's), (192, 2515),

Gene: MiniMommy\_73 Start: 43251, Stop: 43613, Start Num: 151  
Candidate Starts for MiniMommy\_73:  
(80, 43134), (Start: 151 @43251 has 2 MA's), (181, 43320), (184, 43326), (228, 43521), (232, 43554),  
(234, 43563),

Gene: Miskis\_16 Start: 3268, Stop: 3576, Start Num: 162  
Candidate Starts for Miskis\_16:  
(130, 3238), (Start: 162 @3268 has 21 MA's), (216, 3460), (227, 3532),

Gene: MissSwiss\_70 Start: 42246, Stop: 42548, Start Num: 157  
Candidate Starts for MissSwiss\_70:  
(Start: 157 @42246 has 117 MA's), (201, 42363), (213, 42429), (231, 42537),

Gene: MissWhite\_4 Start: 2314, Stop: 2610, Start Num: 158  
Candidate Starts for MissWhite\_4:  
(Start: 158 @2314 has 512 MA's),

Gene: Mkhuseli\_1 Start: 600, Stop: 896, Start Num: 158  
Candidate Starts for Mkhuseli\_1:  
(Start: 114 @537 has 4 MA's), (Start: 133 @573 has 3 MA's), (141, 582), (Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: Molly\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Molly\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Mollymur\_10 Start: 5419, Stop: 5724, Start Num: 162  
Candidate Starts for Mollymur\_10:

(Start: 162 @5419 has 21 MA's), (212, 5590), (232, 5719),

Gene: Monet\_2 Start: 750, Stop: 1046, Start Num: 158

Candidate Starts for Monet\_2:

(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: MoneyMay\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for MoneyMay\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Moose\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for Moose\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (215, 773), (221, 809), (227, 845),

Gene: MortyNRick\_99 Start: 53600, Stop: 53893, Start Num: 163

Candidate Starts for MortyNRick\_99:

(67, 53429), (Start: 163 @53600 has 5 MA's),

Gene: MosMoris\_88 Start: 49109, Stop: 49435, Start Num: 157

Candidate Starts for MosMoris\_88:

(Start: 157 @49109 has 117 MA's), (Start: 175 @49151 has 1 MA's), (189, 49196), (205, 49256), (214, 49316), (224, 49376),

Gene: MrGordo\_1 Start: 570, Stop: 905, Start Num: 133

Candidate Starts for MrGordo\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Mryolo\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Mryolo\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Mudpuppy\_68 Start: 43455, Stop: 43757, Start Num: 157

Candidate Starts for Mudpuppy\_68:

(Start: 157 @43455 has 117 MA's), (178, 43506), (184, 43521), (201, 43572), (216, 43647), (231, 43746),

Gene: Mulciber\_4 Start: 2359, Stop: 2655, Start Num: 158

Candidate Starts for Mulciber\_4:

(Start: 158 @2359 has 512 MA's), (Start: 172 @2392 has 3 MA's), (192, 2449), (232, 2650),

Gene: Mule\_1 Start: 595, Stop: 891, Start Num: 158

Candidate Starts for Mule\_1:

(Start: 114 @532 has 4 MA's), (Start: 133 @568 has 3 MA's), (141, 577), (Start: 154 @592 has 33 MA's), (Start: 158 @595 has 512 MA's), (204, 718), (221, 808), (227, 844),

Gene: Munch\_4 Start: 2356, Stop: 2652, Start Num: 158

Candidate Starts for Munch\_4:

(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: MunkgeeRoachy\_69 Start: 45602, Stop: 45892, Start Num: 143

Candidate Starts for MunkgeeRoachy\_69:  
(135, 45596), (Start: 143 @45602 has 21 MA's), (190, 45701),

Gene: Museum\_3 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Museum\_3:  
(Start: 158 @748 has 512 MA's), (221, 961), (227, 997),

Gene: MyraDee\_1 Start: 377, Stop: 667, Start Num: 159  
Candidate Starts for MyraDee\_1:  
(Start: 159 @377 has 3 MA's), (184, 440), (206, 506), (225, 617),

Gene: Myxus\_4 Start: 2335, Stop: 2628, Start Num: 154  
Candidate Starts for Myxus\_4:  
(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: NEHalo\_2 Start: 747, Stop: 1043, Start Num: 158  
Candidate Starts for NEHalo\_2:  
(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),

Gene: NaSiaTalie\_5 Start: 2624, Stop: 2920, Start Num: 158  
Candidate Starts for NaSiaTalie\_5:  
(59, 2423), (Start: 158 @2624 has 512 MA's),

Gene: Nabi\_2 Start: 726, Stop: 1037, Start Num: 157  
Candidate Starts for Nabi\_2:  
(Start: 65 @591 has 2 MA's), (Start: 157 @726 has 117 MA's), (186, 798), (195, 828), (208, 879),

Gene: Naca\_1 Start: 505, Stop: 804, Start Num: 138  
Candidate Starts for Naca\_1:  
(Start: 138 @505 has 40 MA's), (Start: 164 @520 has 1 MA's), (199, 613), (225, 754), (232, 799),

Gene: Naira\_1 Start: 606, Stop: 902, Start Num: 158  
Candidate Starts for Naira\_1:  
(Start: 114 @543 has 4 MA's), (Start: 133 @579 has 3 MA's), (141, 588), (Start: 158 @606 has 512 MA's), (204, 729), (215, 783), (221, 819), (227, 855),

Gene: Nairb\_57 Start: 40896, Stop: 41195, Start Num: 168  
Candidate Starts for Nairb\_57:  
(90, 40761), (116, 40821), (Start: 168 @40896 has 9 MA's), (208, 41019),

Gene: Naji\_4 Start: 2345, Stop: 2641, Start Num: 158  
Candidate Starts for Naji\_4:  
(Start: 158 @2345 has 512 MA's),

Gene: Nanodon\_3 Start: 713, Stop: 1027, Start Num: 157  
Candidate Starts for Nanodon\_3:  
(73, 602), (102, 632), (Start: 157 @713 has 117 MA's), (186, 785), (208, 869),

Gene: NearlyHeadless\_1 Start: 505, Stop: 798, Start Num: 160  
Candidate Starts for NearlyHeadless\_1:  
(Start: 160 @505 has 8 MA's), (213, 679), (227, 757), (232, 793),

Gene: Nebkiss\_165 Start: 79421, Stop: 79717, Start Num: 159

Candidate Starts for Nebkiss\_165:

(Start: 159 @79421 has 3 MA's), (176, 79466), (180, 79478), (197, 79532), (203, 79553), (206, 79568), (213, 79607), (216, 79616), (217, 79622),

Gene: Nebulosus\_4 Start: 2278, Stop: 2574, Start Num: 158

Candidate Starts for Nebulosus\_4:

(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Nedarya\_4 Start: 2247, Stop: 2543, Start Num: 158

Candidate Starts for Nedarya\_4:

(Start: 158 @2247 has 512 MA's),

Gene: Neeharika16\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Neeharika16\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Neobush\_81 Start: 50518, Stop: 50853, Start Num: 115

Candidate Starts for Neobush\_81:

(25, 50245), (Start: 115 @50518 has 28 MA's),

Gene: Nerdos\_2 Start: 740, Stop: 1054, Start Num: 157

Candidate Starts for Nerdos\_2:

(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: Nergal\_81 Start: 54725, Stop: 55063, Start Num: 161

Candidate Starts for Nergal\_81:

(Start: 161 @54725 has 4 MA's), (191, 54815), (193, 54824), (209, 54905),

Gene: Nerujay\_1 Start: 598, Stop: 906, Start Num: 158

Candidate Starts for Nerujay\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Newrala\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Newrala\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Nhonho\_2 Start: 746, Stop: 1042, Start Num: 158

Candidate Starts for Nhonho\_2:

(Start: 158 @746 has 512 MA's), (221, 959), (227, 995),

Gene: Nibbles\_67 Start: 45280, Stop: 45597, Start Num: 143

Candidate Starts for Nibbles\_67:

(Start: 143 @45280 has 21 MA's), (208, 45418), (220, 45487),

Gene: NicoleTera\_4 Start: 2315, Stop: 2611, Start Num: 158

Candidate Starts for NicoleTera\_4:

(Start: 158 @2315 has 512 MA's),

Gene: Niobe\_69 Start: 43234, Stop: 43536, Start Num: 157

Candidate Starts for Niobe\_69:

(Start: 157 @43234 has 117 MA's), (178, 43285), (184, 43300), (201, 43351), (216, 43426), (231, 43525),

Gene: Nishikigoi\_2 Start: 652, Stop: 966, Start Num: 158

Candidate Starts for Nishikigoi\_2:

(Start: 149 @643 has 1 MA's), (Start: 158 @652 has 512 MA's), (206, 796), (212, 829),

Gene: Nitro\_70 Start: 44009, Stop: 44311, Start Num: 157

Candidate Starts for Nitro\_70:

(Start: 157 @44009 has 117 MA's), (184, 44075), (201, 44126), (216, 44201), (231, 44300),

Gene: Niza\_3 Start: 1297, Stop: 1593, Start Num: 158

Candidate Starts for Niza\_3:

(Start: 122 @1249 has 1 MA's), (Start: 158 @1297 has 512 MA's), (204, 1420), (227, 1546),

Gene: NoSwimming\_59 Start: 40976, Stop: 41329, Start Num: 115

Candidate Starts for NoSwimming\_59:

(Start: 115 @40976 has 28 MA's), (171, 41072), (213, 41240), (222, 41285),

Gene: Nodigi\_74 Start: 46877, Stop: 47185, Start Num: 143

Candidate Starts for Nodigi\_74:

(116, 46838), (135, 46868), (Start: 143 @46877 has 21 MA's), (170, 46922), (184, 46961), (190, 46976), (199, 46985), (208, 47024), (210, 47048), (212, 47057),

Gene: Noella\_1 Start: 445, Stop: 741, Start Num: 158

Candidate Starts for Noella\_1:

(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Norvs\_14 Start: 3268, Stop: 3576, Start Num: 162

Candidate Starts for Norvs\_14:

(130, 3238), (Start: 162 @3268 has 21 MA's), (216, 3460), (227, 3532),

Gene: Norz\_2 Start: 745, Stop: 1041, Start Num: 158

Candidate Starts for Norz\_2:

(Start: 158 @745 has 512 MA's), (204, 868), (221, 958), (227, 994),

Gene: Nymphadora\_84 Start: 53045, Stop: 53380, Start Num: 115

Candidate Starts for Nymphadora\_84:

(25, 52772), (Start: 115 @53045 has 28 MA's), (202, 53231),

Gene: OKCentral2016\_1 Start: 464, Stop: 760, Start Num: 138

Candidate Starts for OKCentral2016\_1:

(92, 377), (Start: 138 @464 has 40 MA's),

Gene: ObiToo\_74 Start: 43593, Stop: 43895, Start Num: 157

Candidate Starts for ObiToo\_74:

(Start: 157 @43593 has 117 MA's), (216, 43785), (231, 43884),

Gene: Odin\_3 Start: 2153, Stop: 2449, Start Num: 158

Candidate Starts for Odin\_3:

(Start: 158 @2153 has 512 MA's), (218, 2348),

Gene: Ohno789\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for Ohno789\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: OlanP\_1 Start: 710, Stop: 1003, Start Num: 158

Candidate Starts for OlanP\_1:

(Start: 158 @710 has 512 MA's), (184, 776),

Gene: Oliynyk\_2 Start: 746, Stop: 1060, Start Num: 157

Candidate Starts for Oliynyk\_2:

(102, 668), (Start: 157 @746 has 117 MA's), (208, 902),

Gene: Ollie\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Ollie\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Omar\_2 Start: 651, Stop: 965, Start Num: 158

Candidate Starts for Omar\_2:

(Start: 149 @642 has 1 MA's), (Start: 158 @651 has 512 MA's), (206, 795), (212, 828),

Gene: OneUp\_9 Start: 2116, Stop: 2424, Start Num: 162

Candidate Starts for OneUp\_9:

(120, 2056), (Start: 162 @2116 has 21 MA's), (212, 2290), (219, 2326),

Gene: Oogway\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Oogway\_1:

(Start: 132 @571 has 31 MA's), (139, 580), (Start: 158 @598 has 512 MA's), (204, 721), (227, 847),

Gene: Orange\_4 Start: 2389, Stop: 2652, Start Num: 172

Candidate Starts for Orange\_4:

(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: Orla\_75 Start: 47026, Stop: 47334, Start Num: 143

Candidate Starts for Orla\_75:

(135, 47017), (Start: 143 @47026 has 21 MA's), (170, 47071), (184, 47110), (190, 47125), (199, 47134), (208, 47173), (210, 47197), (212, 47206),

Gene: Ozzie\_2 Start: 739, Stop: 1053, Start Num: 157

Candidate Starts for Ozzie\_2:

(Start: 157 @739 has 117 MA's), (208, 895),

Gene: OzzyJ\_3 Start: 730, Stop: 1041, Start Num: 157

Candidate Starts for OzzyJ\_3:

(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (208, 883),

Gene: P28Green\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for P28Green\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: PGHhamlin\_3 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for PGHhamlin\_3:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: PSullivan\_2 Start: 834, Stop: 1130, Start Num: 158



Candidate Starts for PSullivan\_2:

(Start: 122 @786 has 1 MA's), (Start: 158 @834 has 512 MA's), (204, 957), (221, 1047), (227, 1083),

Gene: Pablito\_2 Start: 689, Stop: 1003, Start Num: 158

Candidate Starts for Pablito\_2:

(Start: 158 @689 has 512 MA's), (206, 833), (208, 845), (212, 866),

Gene: PacerPaul\_2 Start: 835, Stop: 1131, Start Num: 158

Candidate Starts for PacerPaul\_2:

(Start: 122 @787 has 1 MA's), (Start: 158 @835 has 512 MA's), (204, 958), (221, 1048), (227, 1084),

Gene: PackMan\_4 Start: 2335, Stop: 2628, Start Num: 154

Candidate Starts for PackMan\_4:

(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Paedore\_3 Start: 682, Stop: 996, Start Num: 158

Candidate Starts for Paedore\_3:

(Start: 105 @604 has 1 MA's), (150, 673), (Start: 158 @682 has 512 MA's), (206, 826), (208, 838),

Gene: PainterBoy\_4 Start: 2125, Stop: 2418, Start Num: 154

Candidate Starts for PainterBoy\_4:

(Start: 154 @2125 has 33 MA's), (184, 2191), (199, 2227), (204, 2245), (206, 2257),

Gene: Paolo\_3 Start: 1034, Stop: 1348, Start Num: 158

Candidate Starts for Paolo\_3:

(68, 881), (Start: 105 @962 has 1 MA's), (Start: 149 @1028 has 1 MA's), (Start: 158 @1034 has 512 MA's), (184, 1103), (206, 1178),

Gene: Papez\_2 Start: 785, Stop: 1129, Start Num: 122

Candidate Starts for Papez\_2:

(Start: 122 @785 has 1 MA's), (Start: 158 @833 has 512 MA's), (188, 908), (204, 956), (221, 1046), (227, 1082),

Gene: Paphu\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for Paphu\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Paraselene\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for Paraselene\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Pari\_2 Start: 735, Stop: 1031, Start Num: 158

Candidate Starts for Pari\_2:

(Start: 158 @735 has 512 MA's), (204, 858), (221, 948), (227, 984),

Gene: Parliament\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Parliament\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: PascalRango\_2 Start: 747, Stop: 1043, Start Num: 158

Candidate Starts for PascalRango\_2:  
(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),

Gene: PattyP\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for PattyP\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Pavo\_3 Start: 974, Stop: 1288, Start Num: 158  
Candidate Starts for Pavo\_3:  
(50, 770), (51, 773), (Start: 65 @815 has 2 MA's), (66, 824), (98, 875), (150, 968), (Start: 158 @974 has 512 MA's), (184, 1043), (206, 1118), (212, 1151),

Gene: Pawn\_1 Start: 522, Stop: 824, Start Num: 132  
Candidate Starts for Pawn\_1:  
(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Payneful\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Payneful\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: PeaceMeal1\_1 Start: 474, Stop: 770, Start Num: 138  
Candidate Starts for PeaceMeal1\_1:  
(44, 270), (Start: 138 @474 has 40 MA's), (206, 609),

Gene: Pelly\_2 Start: 782, Stop: 1078, Start Num: 158  
Candidate Starts for Pelly\_2:  
(Start: 158 @782 has 512 MA's), (204, 905), (221, 995), (227, 1031),

Gene: Pembroke\_1 Start: 517, Stop: 819, Start Num: 132  
Candidate Starts for Pembroke\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Penny1\_1 Start: 526, Stop: 819, Start Num: 158  
Candidate Starts for Penny1\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Pepe\_2 Start: 860, Stop: 1165, Start Num: 158  
Candidate Starts for Pepe\_2:  
(Start: 122 @812 has 1 MA's), (Start: 158 @860 has 512 MA's), (204, 983), (221, 1073), (227, 1109),

Gene: Percival\_75 Start: 46934, Stop: 47236, Start Num: 157  
Candidate Starts for Percival\_75:  
(Start: 157 @46934 has 117 MA's), (184, 47000), (201, 47051), (206, 47075),

Gene: Perseus\_1 Start: 595, Stop: 891, Start Num: 158  
Candidate Starts for Perseus\_1:  
(Start: 114 @532 has 4 MA's), (Start: 133 @568 has 3 MA's), (141, 577), (Start: 154 @592 has 33 MA's), (Start: 158 @595 has 512 MA's), (204, 718), (221, 808), (227, 844),

Gene: Peterson\_1 Start: 599, Stop: 895, Start Num: 158  
Candidate Starts for Peterson\_1:  
(Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Petp2012\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Petp2012\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Petruchio\_2 Start: 749, Stop: 1045, Start Num: 158  
Candidate Starts for Petruchio\_2:  
(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: PetterN\_1 Start: 502, Stop: 801, Start Num: 138  
Candidate Starts for PetterN\_1:  
(Start: 138 @502 has 40 MA's), (Start: 164 @517 has 1 MA's), (199, 610), (225, 751), (232, 796),

Gene: Ph8s\_4 Start: 2160, Stop: 2456, Start Num: 158  
Candidate Starts for Ph8s\_4:  
(107, 2076), (Start: 158 @2160 has 512 MA's), (212, 2328),

Gene: Phaded\_4 Start: 2109, Stop: 2405, Start Num: 158  
Candidate Starts for Phaded\_4:  
(Start: 158 @2109 has 512 MA's), (194, 2208), (218, 2304),

Gene: Phaeder\_4 Start: 2335, Stop: 2628, Start Num: 154  
Candidate Starts for Phaeder\_4:  
(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Phantastic\_1 Start: 425, Stop: 721, Start Num: 137  
Candidate Starts for Phantastic\_1:  
(134, 422), (Start: 137 @425 has 3 MA's), (206, 560),

Gene: Pharaoh\_4 Start: 2218, Stop: 2514, Start Num: 155  
Candidate Starts for Pharaoh\_4:  
(Start: 155 @2218 has 4 MA's), (202, 2335),

Gene: PherrisBueller\_2 Start: 863, Stop: 1171, Start Num: 158  
Candidate Starts for PherrisBueller\_2:  
(Start: 122 @815 has 1 MA's), (Start: 158 @863 has 512 MA's), (204, 986), (221, 1076), (227, 1112),

Gene: Phettuccine\_2 Start: 740, Stop: 1054, Start Num: 157  
Candidate Starts for Phettuccine\_2:  
(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: Phillis\_1 Start: 505, Stop: 798, Start Num: 160  
Candidate Starts for Phillis\_1:  
(Start: 160 @505 has 8 MA's), (192, 592), (213, 679), (227, 757), (232, 793),

Gene: PhinkBoden\_15 Start: 3766, Stop: 4074, Start Num: 162  
Candidate Starts for PhinkBoden\_15:  
(130, 3736), (Start: 162 @3766 has 21 MA's), (227, 4030),

Gene: PhishRPhriends\_1 Start: 531, Stop: 824, Start Num: 158  
Candidate Starts for PhishRPhriends\_1:  
(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Phives\_70 Start: 43835, Stop: 44137, Start Num: 157  
Candidate Starts for Phives\_70:  
(Start: 157 @43835 has 117 MA's), (184, 43901), (201, 43952), (216, 44027), (231, 44126),

Gene: Phlorence\_1 Start: 534, Stop: 833, Start Num: 138  
Candidate Starts for Phlorence\_1:  
(57, 372), (Start: 138 @534 has 40 MA's), (199, 642), (213, 714), (225, 783), (232, 828),

Gene: Phoebe\_1 Start: 517, Stop: 819, Start Num: 132  
Candidate Starts for Phoebe\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Phonnegut\_4 Start: 2335, Stop: 2628, Start Num: 154  
Candidate Starts for Phonnegut\_4:  
(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Phoxy\_1 Start: 527, Stop: 820, Start Num: 158  
Candidate Starts for Phoxy\_1:  
(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Phranny\_2 Start: 531, Stop: 824, Start Num: 158  
Candidate Starts for Phranny\_2:  
(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: PhrostyMug\_1 Start: 532, Stop: 891, Start Num: 114  
Candidate Starts for PhrostyMug\_1:  
(Start: 114 @532 has 4 MA's), (Start: 133 @568 has 3 MA's), (141, 577), (Start: 154 @592 has 33 MA's), (Start: 158 @595 has 512 MA's), (204, 718), (221, 808), (227, 844),

Gene: PickleBack\_1 Start: 535, Stop: 834, Start Num: 138  
Candidate Starts for PickleBack\_1:  
(Start: 138 @535 has 40 MA's), (199, 643), (213, 715), (225, 784), (232, 829),

Gene: PinkPlastic\_1 Start: 597, Stop: 893, Start Num: 158  
Candidate Starts for PinkPlastic\_1:  
(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (215, 774), (221, 810), (227, 846),

Gene: Pinto\_1 Start: 535, Stop: 894, Start Num: 114  
Candidate Starts for Pinto\_1:  
(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Pioneer\_4 Start: 2335, Stop: 2628, Start Num: 154  
Candidate Starts for Pioneer\_4:  
(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Pippin\_2 Start: 749, Stop: 1057, Start Num: 158  
Candidate Starts for Pippin\_2:  
(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: Piro94\_4 Start: 2628, Stop: 2924, Start Num: 158  
Candidate Starts for Piro94\_4:

(59, 2427), (Start: 158 @2628 has 512 MA's),

Gene: Pistachio\_1 Start: 420, Stop: 716, Start Num: 158

Candidate Starts for Pistachio\_1:

(Start: 158 @420 has 512 MA's), (206, 555),

Gene: Pita2\_2 Start: 834, Stop: 1130, Start Num: 158

Candidate Starts for Pita2\_2:

(Start: 122 @786 has 1 MA's), (Start: 158 @834 has 512 MA's), (204, 957), (221, 1047), (227, 1083),

Gene: Pixelle\_68 Start: 43980, Stop: 44282, Start Num: 157

Candidate Starts for Pixelle\_68:

(Start: 157 @43980 has 117 MA's), (184, 44046), (201, 44097), (216, 44172), (231, 44271),

Gene: Pmask\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Pmask\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Pocahontas\_1 Start: 445, Stop: 741, Start Num: 158

Candidate Starts for Pocahontas\_1:

(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Poise\_93 Start: 48691, Stop: 49017, Start Num: 158

Candidate Starts for Poise\_93:

(134, 48664), (Start: 158 @48691 has 512 MA's), (Start: 175 @48733 has 1 MA's), (189, 48778), (205, 48838), (214, 48898), (224, 48958),

Gene: Pollux\_82 Start: 52125, Stop: 52415, Start Num: 167

Candidate Starts for Pollux\_82:

(10, 51612), (24, 51762), (27, 51771), (29, 51798), (33, 51816), (37, 51840), (46, 51879), (51, 51891), (52, 51894), (109, 52029), (Start: 167 @52125 has 16 MA's),

Gene: Polly\_76 Start: 49393, Stop: 49728, Start Num: 115

Candidate Starts for Polly\_76:

(25, 49120), (Start: 115 @49393 has 28 MA's),

Gene: Pomar16\_4 Start: 2345, Stop: 2641, Start Num: 158

Candidate Starts for Pomar16\_4:

(Start: 158 @2345 has 512 MA's),

Gene: Pons\_74 Start: 47664, Stop: 47978, Start Num: 146

Candidate Starts for Pons\_74:

(135, 47652), (Start: 146 @47664 has 9 MA's), (198, 47763), (215, 47850),

Gene: Poompha\_1 Start: 472, Stop: 768, Start Num: 138

Candidate Starts for Poompha\_1:

(38, 247), (Start: 138 @472 has 40 MA's), (206, 607),

Gene: Posh\_79 Start: 51944, Stop: 52234, Start Num: 167

Candidate Starts for Posh\_79:

(128, 51887), (Start: 131 @51893 has 1 MA's), (Start: 167 @51944 has 16 MA's),

Gene: PotPie\_71 Start: 47864, Stop: 48178, Start Num: 146

Candidate Starts for PotPie\_71:

(135, 47852), (Start: 146 @47864 has 9 MA's), (165, 47888), (190, 47957), (220, 48074),

Gene: PotatoSplit\_2 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for PotatoSplit\_2:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Poushou\_54 Start: 39982, Stop: 40287, Start Num: 148

Candidate Starts for Poushou\_54:

(Start: 148 @39982 has 3 MA's), (Start: 185 @40057 has 1 MA's), (196, 40078), (212, 40159),

Gene: Power\_5 Start: 2567, Stop: 2863, Start Num: 158

Candidate Starts for Power\_5:

(Start: 158 @2567 has 512 MA's), (204, 2690),

Gene: Powerpuff\_71 Start: 44281, Stop: 44583, Start Num: 157

Candidate Starts for Powerpuff\_71:

(Start: 157 @44281 has 117 MA's), (178, 44332), (184, 44347), (201, 44398), (216, 44473), (231, 44572),

Gene: Priamo\_4 Start: 2158, Stop: 2454, Start Num: 158

Candidate Starts for Priamo\_4:

(Start: 158 @2158 has 512 MA's), (206, 2293),

Gene: Pringar\_88 Start: 48479, Stop: 48805, Start Num: 158

Candidate Starts for Pringar\_88:

(Start: 151 @48473 has 2 MA's), (Start: 158 @48479 has 512 MA's), (Start: 175 @48521 has 1 MA's), (189, 48566), (205, 48626), (214, 48686), (224, 48746),

Gene: Priya\_4 Start: 2332, Stop: 2625, Start Num: 154

Candidate Starts for Priya\_4:

(Start: 126 @2305 has 3 MA's), (Start: 154 @2332 has 33 MA's), (199, 2434), (204, 2452),

Gene: ProMouse\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for ProMouse\_1:

(113, 533), (Start: 132 @569 has 31 MA's), (139, 578), (Start: 158 @596 has 512 MA's), (204, 719), (227, 845),

Gene: Provolone\_4 Start: 978, Stop: 1292, Start Num: 158

Candidate Starts for Provolone\_4:

(62, 825), (78, 858), (86, 864), (91, 870), (150, 972), (Start: 158 @978 has 512 MA's), (184, 1047), (206, 1122), (212, 1155),

Gene: Puginator\_3 Start: 1036, Stop: 1350, Start Num: 158

Candidate Starts for Puginator\_3:

(68, 883), (Start: 105 @964 has 1 MA's), (Start: 149 @1030 has 1 MA's), (Start: 158 @1036 has 512 MA's), (184, 1105), (206, 1180),

Gene: Pukovnik\_4 Start: 2088, Stop: 2384, Start Num: 158

Candidate Starts for Pukovnik\_4:

(Start: 158 @2088 has 512 MA's), (218, 2283),

Gene: Puppy\_1 Start: 420, Stop: 716, Start Num: 158

Candidate Starts for Puppy\_1:  
(Start: 158 @420 has 512 MA's), (206, 555),

Gene: PurpleHaze\_1 Start: 522, Stop: 824, Start Num: 132  
Candidate Starts for PurpleHaze\_1:  
(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: Pytheas\_83 Start: 53170, Stop: 53460, Start Num: 167  
Candidate Starts for Pytheas\_83:  
(128, 53113), (Start: 131 @53119 has 1 MA's), (Start: 167 @53170 has 16 MA's),

Gene: QTRlifeCrisis\_1 Start: 597, Stop: 893, Start Num: 158  
Candidate Starts for QTRlifeCrisis\_1:  
(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Qobbit\_4 Start: 2305, Stop: 2625, Start Num: 126  
Candidate Starts for Qobbit\_4:  
(Start: 126 @2305 has 3 MA's), (Start: 154 @2332 has 33 MA's), (199, 2434), (204, 2452),

Gene: Quasar\_71 Start: 46628, Stop: 46939, Start Num: 127  
Candidate Starts for Quasar\_71:  
(Start: 127 @46628 has 1 MA's), (Start: 143 @46649 has 21 MA's), (190, 46748),

Gene: QueenB2\_5 Start: 2671, Stop: 2967, Start Num: 158  
Candidate Starts for QueenB2\_5:  
(Start: 158 @2671 has 512 MA's), (204, 2794),

Gene: QueenBeesly\_5 Start: 2568, Stop: 2864, Start Num: 158  
Candidate Starts for QueenBeesly\_5:  
(Start: 158 @2568 has 512 MA's), (204, 2691),

Gene: R4\_1 Start: 671, Stop: 985, Start Num: 158  
Candidate Starts for R4\_1:  
(54, 464), (Start: 105 @593 has 1 MA's), (150, 662), (Start: 158 @671 has 512 MA's), (206, 815), (208, 827),

Gene: Rachaly\_5 Start: 2538, Stop: 2834, Start Num: 158  
Candidate Starts for Rachaly\_5:  
(Start: 158 @2538 has 512 MA's),

Gene: Raela\_94 Start: 49242, Stop: 49568, Start Num: 158  
Candidate Starts for Raela\_94:  
(134, 49215), (Start: 158 @49242 has 512 MA's), (Start: 175 @49284 has 1 MA's), (189, 49329), (205, 49389), (214, 49449), (224, 49509),

Gene: Rahalelujah\_4 Start: 2102, Stop: 2395, Start Num: 154  
Candidate Starts for Rahalelujah\_4:  
(Start: 154 @2102 has 33 MA's), (199, 2204), (204, 2222),

Gene: Raid\_3 Start: 783, Stop: 1079, Start Num: 158  
Candidate Starts for Raid\_3:  
(Start: 158 @783 has 512 MA's), (204, 906), (221, 996), (227, 1032),

Gene: Rajelicia\_2 Start: 750, Stop: 1046, Start Num: 158  
Candidate Starts for Rajelicia\_2:  
(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: Rana\_2 Start: 726, Stop: 1037, Start Num: 157  
Candidate Starts for Rana\_2:  
(Start: 65 @591 has 2 MA's), (Start: 157 @726 has 117 MA's), (186, 798), (195, 828), (208, 879),

Gene: RanchParmCat\_74 Start: 46910, Stop: 47206, Start Num: 143  
Candidate Starts for RanchParmCat\_74:  
(135, 46901), (Start: 143 @46910 has 21 MA's), (170, 46955), (190, 47009), (208, 47045),

Gene: RavenCo17\_74 Start: 49279, Stop: 49611, Start Num: 115  
Candidate Starts for RavenCo17\_74:  
(Start: 115 @49279 has 28 MA's), (187, 49411),

Gene: ReMo\_4 Start: 2278, Stop: 2574, Start Num: 158  
Candidate Starts for ReMo\_4:  
(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: Reba\_2 Start: 531, Stop: 824, Start Num: 158  
Candidate Starts for Reba\_2:  
(Start: 132 @522 has 31 MA's), (Start: 158 @531 has 512 MA's), (184, 597),

Gene: RedBear\_3 Start: 726, Stop: 1040, Start Num: 157  
Candidate Starts for RedBear\_3:  
(64, 582), (Start: 157 @726 has 117 MA's), (186, 798), (208, 882),

Gene: RedRaider77\_92 Start: 48636, Stop: 48962, Start Num: 158  
Candidate Starts for RedRaider77\_92:  
(134, 48609), (Start: 158 @48636 has 512 MA's), (Start: 175 @48678 has 1 MA's), (189, 48723), (205, 48783), (214, 48843), (224, 48903),

Gene: RedRock\_4 Start: 2278, Stop: 2574, Start Num: 158  
Candidate Starts for RedRock\_4:  
(Start: 158 @2278 has 512 MA's), (204, 2401),

Gene: Reedo\_68 Start: 41440, Stop: 41742, Start Num: 157  
Candidate Starts for Reedo\_68:  
(Start: 157 @41440 has 117 MA's), (181, 41500), (184, 41506), (201, 41557), (216, 41632), (231, 41731), (232, 41734),

Gene: Refuge\_4 Start: 2250, Stop: 2546, Start Num: 158  
Candidate Starts for Refuge\_4:  
(Start: 158 @2250 has 512 MA's),

Gene: Remus\_4 Start: 2278, Stop: 2574, Start Num: 158  
Candidate Starts for Remus\_4:  
(Start: 158 @2278 has 512 MA's),

Gene: Renaud18\_112 Start: 57550, Stop: 57837, Start Num: 167  
Candidate Starts for Renaud18\_112:



(16, 57079), (41, 57280), (56, 57319), (76, 57385), (77, 57388), (Start: 131 @57499 has 1 MA's),  
(Start: 167 @57550 has 16 MA's),

Gene: ResDef\_1 Start: 445, Stop: 741, Start Num: 158  
Candidate Starts for ResDef\_1:  
(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Retro23\_5 Start: 2671, Stop: 2967, Start Num: 158  
Candidate Starts for Retro23\_5:  
(Start: 158 @2671 has 512 MA's), (204, 2794),

Gene: RhynO\_1 Start: 474, Stop: 770, Start Num: 138  
Candidate Starts for RhynO\_1:  
(Start: 138 @474 has 40 MA's), (206, 609),

Gene: Rhynn\_1 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Rhynn\_1:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: RidgeCB\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for RidgeCB\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Rifter\_4 Start: 2132, Stop: 2428, Start Num: 158  
Candidate Starts for Rifter\_4:  
(Start: 158 @2132 has 512 MA's), (206, 2267),

Gene: Ringer\_1 Start: 597, Stop: 893, Start Num: 158  
Candidate Starts for Ringer\_1:  
(Start: 133 @570 has 3 MA's), (141, 579), (Start: 154 @594 has 33 MA's), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Roary\_1 Start: 505, Stop: 798, Start Num: 160  
Candidate Starts for Roary\_1:  
(Start: 160 @505 has 8 MA's), (192, 592), (213, 679), (227, 757), (232, 793),

Gene: Rohr\_2 Start: 832, Stop: 1128, Start Num: 158  
Candidate Starts for Rohr\_2:  
(Start: 122 @784 has 1 MA's), (Start: 158 @832 has 512 MA's), (204, 955), (221, 1045), (227, 1081),

Gene: Roksolana\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for Roksolana\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: RonRayGun\_59 Start: 41099, Stop: 41398, Start Num: 168  
Candidate Starts for RonRayGun\_59:  
(Start: 168 @41099 has 9 MA's), (208, 41222),

Gene: RootBeer\_55 Start: 38956, Stop: 39309, Start Num: 115  
Candidate Starts for RootBeer\_55:  
(80, 38890), (Start: 115 @38956 has 28 MA's), (193, 39118), (199, 39139),

Gene: Rosalind\_4 Start: 2425, Stop: 2721, Start Num: 158

Candidate Starts for Rosalind\_4:  
(Start: 158 @2425 has 512 MA's), (192, 2515),

Gene: Rubeus\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Rubeus\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Rufus\_2 Start: 747, Stop: 1043, Start Num: 158  
Candidate Starts for Rufus\_2:  
(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),

Gene: Rummer\_1 Start: 518, Stop: 820, Start Num: 132  
Candidate Starts for Rummer\_1:  
(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Ruotula\_2 Start: 1335, Stop: 1625, Start Num: 168  
Candidate Starts for Ruotula\_2:  
(21, 900), (34, 1008), (35, 1017), (82, 1173), (87, 1182), (89, 1185), (Start: 168 @1335 has 9 MA's),  
(177, 1362), (221, 1542), (227, 1578),

Gene: Rusticus\_2 Start: 746, Stop: 1060, Start Num: 157  
Candidate Starts for Rusticus\_2:  
(102, 668), (Start: 157 @746 has 117 MA's), (208, 902),

Gene: Rutherferd\_1 Start: 597, Stop: 893, Start Num: 158  
Candidate Starts for Rutherferd\_1:  
(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: RyeScarlet\_5 Start: 2335, Stop: 2628, Start Num: 154  
Candidate Starts for RyeScarlet\_5:  
(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: SPB78\_77 Start: 49993, Stop: 50292, Start Num: 156  
Candidate Starts for SPB78\_77:  
(156, 49993), (178, 50050), (200, 50110),

Gene: STLscum\_2 Start: 861, Stop: 1166, Start Num: 158  
Candidate Starts for STLscum\_2:  
(Start: 122 @813 has 1 MA's), (Start: 158 @861 has 512 MA's), (204, 984), (221, 1074), (227, 1110),

Gene: Sabia\_1 Start: 518, Stop: 820, Start Num: 132  
Candidate Starts for Sabia\_1:  
(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Sabinator\_1 Start: 526, Stop: 819, Start Num: 158  
Candidate Starts for Sabinator\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Saftant\_2 Start: 978, Stop: 1292, Start Num: 158  
Candidate Starts for Saftant\_2:  
(69, 831), (85, 855), (92, 864), (150, 969), (Start: 153 @972 has 2 MA's), (Start: 158 @978 has 512 MA's), (206, 1122),

Gene: Sagefire\_2 Start: 699, Stop: 995, Start Num: 158  
Candidate Starts for Sagefire\_2:  
(Start: 158 @699 has 512 MA's), (204, 822), (221, 912), (227, 948),

Gene: Saintus\_1 Start: 505, Stop: 798, Start Num: 160  
Candidate Starts for Saintus\_1:  
(Start: 160 @505 has 8 MA's), (192, 592), (213, 679), (227, 757), (232, 793),

Gene: Salz\_4 Start: 2356, Stop: 2652, Start Num: 158  
Candidate Starts for Salz\_4:  
(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: Samy\_101 Start: 60454, Stop: 60759, Start Num: 157  
Candidate Starts for Samy\_101:  
(Start: 157 @60454 has 117 MA's), (194, 60550), (201, 60571), (206, 60595), (212, 60628), (226, 60712), (229, 60718),

Gene: Sanya\_1 Start: 1334, Stop: 1624, Start Num: 168  
Candidate Starts for Sanya\_1:  
(21, 899), (35, 1016), (82, 1172), (87, 1181), (89, 1184), (Start: 168 @1334 has 9 MA's), (177, 1361), (221, 1541), (227, 1577),

Gene: SarFire\_2 Start: 757, Stop: 1053, Start Num: 158  
Candidate Starts for SarFire\_2:  
(Start: 158 @757 has 512 MA's), (204, 880), (221, 970), (227, 1006),

Gene: SarahRose\_2 Start: 729, Stop: 1040, Start Num: 157  
Candidate Starts for SarahRose\_2:  
(Start: 65 @588 has 2 MA's), (79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (208, 882),

Gene: Scherzo\_4 Start: 2335, Stop: 2628, Start Num: 154  
Candidate Starts for Scherzo\_4:  
(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Scorpia\_1 Start: 502, Stop: 801, Start Num: 138  
Candidate Starts for Scorpia\_1:  
(Start: 138 @502 has 40 MA's), (Start: 164 @517 has 1 MA's), (199, 610), (225, 751), (232, 796),

Gene: Scout\_1 Start: 416, Stop: 712, Start Num: 137  
Candidate Starts for Scout\_1:  
(74, 293), (Start: 131 @410 has 1 MA's), (Start: 137 @416 has 3 MA's), (206, 551),

Gene: Scowl\_2 Start: 986, Stop: 1294, Start Num: 158  
Candidate Starts for Scowl\_2:  
(Start: 158 @986 has 512 MA's), (204, 1109), (221, 1199), (227, 1235),

Gene: Seabiscuit\_2 Start: 749, Stop: 1045, Start Num: 158  
Candidate Starts for Seabiscuit\_2:  
(Start: 158 @749 has 512 MA's), (204, 872), (215, 926), (221, 962), (227, 998),

Gene: Seanderson\_1 Start: 600, Stop: 896, Start Num: 158  
Candidate Starts for Seanderson\_1:

(Start: 114 @537 has 4 MA's), (Start: 133 @573 has 3 MA's), (141, 582), (Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: SemperFi\_5 Start: 2562, Stop: 2858, Start Num: 158  
Candidate Starts for SemperFi\_5:  
(Start: 158 @2562 has 512 MA's), (204, 2685),

Gene: Serenity\_4 Start: 2328, Stop: 2624, Start Num: 158  
Candidate Starts for Serenity\_4:  
(Start: 158 @2328 has 512 MA's),

Gene: Severus\_1 Start: 472, Stop: 768, Start Num: 138  
Candidate Starts for Severus\_1:  
(38, 247), (Start: 138 @472 has 40 MA's), (206, 607),

Gene: ShakeltOph\_72 Start: 43243, Stop: 43605, Start Num: 151  
Candidate Starts for ShakeltOph\_72:  
(80, 43126), (Start: 151 @43243 has 2 MA's), (181, 43312), (184, 43318), (228, 43513), (234, 43555),

Gene: Sham4\_4 Start: 2359, Stop: 2655, Start Num: 158  
Candidate Starts for Sham4\_4:  
(Start: 158 @2359 has 512 MA's), (Start: 172 @2392 has 3 MA's), (192, 2449), (232, 2650),

Gene: ShayRa\_5 Start: 2425, Stop: 2721, Start Num: 158  
Candidate Starts for ShayRa\_5:  
(Start: 158 @2425 has 512 MA's), (192, 2515),

Gene: SheaKeira\_4 Start: 2123, Stop: 2416, Start Num: 154  
Candidate Starts for SheaKeira\_4:  
(Start: 154 @2123 has 33 MA's), (192, 2210), (199, 2225), (204, 2243),

Gene: Sheen\_1 Start: 397, Stop: 693, Start Num: 146  
Candidate Starts for Sheen\_1:  
(93, 301), (Start: 146 @397 has 9 MA's), (225, 643),

Gene: ShortQueendom\_1 Start: 599, Stop: 895, Start Num: 158  
Candidate Starts for ShortQueendom\_1:  
(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Sibs6\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Sibs6\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: SkiPole\_2 Start: 861, Stop: 1166, Start Num: 158  
Candidate Starts for SkiPole\_2:  
(Start: 122 @813 has 1 MA's), (Start: 158 @861 has 512 MA's), (204, 984), (221, 1074), (227, 1110),

Gene: Sknot\_6 Start: 2624, Stop: 2920, Start Num: 158  
Candidate Starts for Sknot\_6:  
(59, 2423), (Start: 158 @2624 has 512 MA's),

Gene: Slagathor\_2 Start: 750, Stop: 1046, Start Num: 158

Candidate Starts for Slagathor\_2:

(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: Smairt\_1 Start: 595, Stop: 891, Start Num: 158

Candidate Starts for Smairt\_1:

(Start: 114 @532 has 4 MA's), (Start: 133 @568 has 3 MA's), (141, 577), (Start: 154 @592 has 33 MA's), (Start: 158 @595 has 512 MA's), (204, 718), (221, 808), (227, 844),

Gene: Smeadley\_1 Start: 505, Stop: 798, Start Num: 160

Candidate Starts for Smeadley\_1:

(Start: 160 @505 has 8 MA's), (192, 592), (213, 679), (227, 757), (232, 793),

Gene: Smeagan\_5 Start: 2550, Stop: 2846, Start Num: 158

Candidate Starts for Smeagan\_5:

(Start: 158 @2550 has 512 MA's), (204, 2673),

Gene: Smeagol\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for Smeagol\_1:

(Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: SmellyB\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for SmellyB\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Smoothie\_14 Start: 3268, Stop: 3576, Start Num: 162

Candidate Starts for Smoothie\_14:

(130, 3238), (Start: 162 @3268 has 21 MA's), (216, 3460), (227, 3532),

Gene: SnapTap\_5 Start: 2567, Stop: 2863, Start Num: 158

Candidate Starts for SnapTap\_5:

(Start: 158 @2567 has 512 MA's), (204, 2690),

Gene: Snape\_4 Start: 2362, Stop: 2658, Start Num: 158

Candidate Starts for Snape\_4:

(Start: 158 @2362 has 512 MA's), (Start: 172 @2395 has 3 MA's), (192, 2452), (232, 2653),

Gene: Snazzy\_1 Start: 595, Stop: 891, Start Num: 158

Candidate Starts for Snazzy\_1:

(Start: 114 @532 has 4 MA's), (Start: 133 @568 has 3 MA's), (141, 577), (Start: 158 @595 has 512 MA's), (204, 718), (221, 808), (227, 844),

Gene: Snek\_68 Start: 40495, Stop: 40800, Start Num: 157

Candidate Starts for Snek\_68:

(Start: 157 @40495 has 117 MA's), (181, 40555), (184, 40561), (201, 40612), (231, 40786),

Gene: Snorlax\_2 Start: 729, Stop: 1040, Start Num: 157

Candidate Starts for Snorlax\_2:

(Start: 65 @588 has 2 MA's), (79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (208, 882),

Gene: SoilDragon\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for SoilDragon\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Solon\_1 Start: 598, Stop: 894, Start Num: 158  
Candidate Starts for Solon\_1:  
(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Soondubu\_62 Start: 44779, Stop: 45078, Start Num: 157  
Candidate Starts for Soondubu\_62:  
(77, 44641), (Start: 157 @44779 has 117 MA's), (184, 44845), (201, 44896), (231, 45070),

Gene: SororFago\_4 Start: 2399, Stop: 2695, Start Num: 158  
Candidate Starts for SororFago\_4:  
(Start: 158 @2399 has 512 MA's), (201, 2510),

Gene: Sorpresa\_1 Start: 599, Stop: 895, Start Num: 158  
Candidate Starts for Sorpresa\_1:  
(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 158 @599 has 512 MA's), (Start: 172 @632 has 3 MA's), (204, 722), (221, 812), (227, 848),

Gene: Soshari\_3 Start: 518, Stop: 820, Start Num: 132  
Candidate Starts for Soshari\_3:  
(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Soups\_4 Start: 2425, Stop: 2721, Start Num: 158  
Candidate Starts for Soups\_4:  
(Start: 158 @2425 has 512 MA's),

Gene: South40\_2 Start: 726, Stop: 1040, Start Num: 157  
Candidate Starts for South40\_2:  
(64, 582), (Start: 157 @726 has 117 MA's), (186, 798), (208, 882),

Gene: Sparky\_95 Start: 62955, Stop: 63257, Start Num: 166  
Candidate Starts for Sparky\_95:  
(58, 62730), (99, 62826), (103, 62841), (110, 62859), (124, 62895), (128, 62901), (Start: 166 @62955 has 2 MA's), (179, 62988), (236, 63246),

Gene: SpeedDemon\_90 Start: 4494, Stop: 4802, Start Num: 162  
Candidate Starts for SpeedDemon\_90:  
(Start: 162 @4494 has 21 MA's), (188, 4566), (207, 4632),

Gene: Speedwell\_3 Start: 947, Stop: 1261, Start Num: 158  
Candidate Starts for Speedwell\_3:  
(42, 725), (Start: 60 @764 has 1 MA's), (150, 938), (Start: 153 @941 has 2 MA's), (Start: 158 @947 has 512 MA's), (206, 1091),

Gene: Spike509\_1 Start: 527, Stop: 820, Start Num: 158  
Candidate Starts for Spike509\_1:  
(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: SpikeBT\_1 Start: 596, Stop: 892, Start Num: 158  
Candidate Starts for SpikeBT\_1:  
(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: Spouty\_4 Start: 2332, Stop: 2625, Start Num: 154

Candidate Starts for Spouty\_4:

(Start: 126 @2305 has 3 MA's), (Start: 154 @2332 has 33 MA's), (199, 2434), (204, 2452),

Gene: SqueakyClean\_3 Start: 1027, Stop: 1341, Start Num: 158

Candidate Starts for SqueakyClean\_3:

(Start: 158 @1027 has 512 MA's), (184, 1096), (206, 1171),

Gene: Squee\_1 Start: 606, Stop: 902, Start Num: 158

Candidate Starts for Squee\_1:

(Start: 114 @543 has 4 MA's), (Start: 133 @579 has 3 MA's), (141, 588), (Start: 158 @606 has 512 MA's), (204, 729), (221, 819), (227, 855),

Gene: Stagni\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for Stagni\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: StarStuff\_4 Start: 2345, Stop: 2641, Start Num: 158

Candidate Starts for StarStuff\_4:

(Start: 158 @2345 has 512 MA's),

Gene: Steamy\_4 Start: 2222, Stop: 2518, Start Num: 158

Candidate Starts for Steamy\_4:

(Start: 158 @2222 has 512 MA's), (184, 2288),

Gene: StepMih\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for StepMih\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Stephig9\_1 Start: 506, Stop: 799, Start Num: 160

Candidate Starts for Stephig9\_1:

(Start: 160 @506 has 8 MA's), (192, 593), (213, 680), (227, 758), (232, 794),

Gene: StewieG\_1 Start: 597, Stop: 893, Start Num: 158

Candidate Starts for StewieG\_1:

(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Stink\_1 Start: 356, Stop: 763, Start Num: 94

Candidate Starts for Stink\_1:

(Start: 94 @356 has 2 MA's), (184, 536), (227, 722),

Gene: StrongArm\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for StrongArm\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 154 @596 has 33 MA's), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Strosahl\_4 Start: 2278, Stop: 2574, Start Num: 158

Candidate Starts for Strosahl\_4:

(Start: 158 @2278 has 512 MA's),

Gene: SuMoo\_83 Start: 48762, Stop: 49061, Start Num: 157

Candidate Starts for SuMoo\_83:

(23, 48399), (26, 48429), (37, 48498), (Start: 157 @48762 has 117 MA's), (184, 48828), (201, 48879), (216, 48954),

Gene: Sue2\_68 Start: 41870, Stop: 42175, Start Num: 157

Candidate Starts for Sue2\_68:

(125, 41837), (Start: 157 @41870 has 117 MA's), (184, 41936), (201, 41987), (231, 42161),

Gene: Sujidade\_2 Start: 723, Stop: 1034, Start Num: 157

Candidate Starts for Sujidade\_2:

(Start: 65 @588 has 2 MA's), (Start: 157 @723 has 117 MA's), (186, 795), (204, 852),

Gene: SummitAcademy\_71 Start: 47007, Stop: 47324, Start Num: 146

Candidate Starts for SummitAcademy\_71:

(135, 46995), (Start: 146 @47007 has 9 MA's), (165, 47031), (190, 47100), (220, 47217),

Gene: Sumter\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Sumter\_1:

(Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: SunsetPointe\_2 Start: 739, Stop: 1053, Start Num: 157

Candidate Starts for SunsetPointe\_2:

(Start: 157 @739 has 117 MA's), (208, 895),

Gene: Sunshine924\_1 Start: 595, Stop: 891, Start Num: 158

Candidate Starts for Sunshine924\_1:

(Start: 114 @532 has 4 MA's), (Start: 133 @568 has 3 MA's), (141, 577), (Start: 158 @595 has 512 MA's), (204, 718), (221, 808), (227, 844),

Gene: SuperAwesome\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for SuperAwesome\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: SuperCallie99\_4 Start: 2144, Stop: 2440, Start Num: 158

Candidate Starts for SuperCallie99\_4:

(Start: 158 @2144 has 512 MA's), (206, 2279),

Gene: Superchunk\_4 Start: 2154, Stop: 2450, Start Num: 158

Candidate Starts for Superchunk\_4:

(Start: 158 @2154 has 512 MA's), (218, 2349),

Gene: Survivors\_69 Start: 45115, Stop: 45432, Start Num: 143

Candidate Starts for Survivors\_69:

(Start: 143 @45115 has 21 MA's), (208, 45253), (220, 45322),

Gene: Suscepit\_79 Start: 49951, Stop: 50286, Start Num: 115

Candidate Starts for Suscepit\_79:

(25, 49678), (Start: 115 @49951 has 28 MA's),

Gene: SweatNTears\_71 Start: 45622, Stop: 45897, Start Num: 143

Candidate Starts for SweatNTears\_71:

(Start: 140 @45619 has 2 MA's), (Start: 143 @45622 has 21 MA's), (169, 45664), (Start: 174 @45676 has 1 MA's), (178, 45688), (211, 45766), (212, 45769),



Gene: SweetiePie\_5 Start: 2568, Stop: 2864, Start Num: 158

Candidate Starts for SweetiePie\_5:

(Start: 158 @2568 has 512 MA's), (204, 2691),

Gene: SwissCheese\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for SwissCheese\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (215, 773), (221, 809), (227, 845),

Gene: Switzer\_2 Start: 747, Stop: 1043, Start Num: 158

Candidate Starts for Switzer\_2:

(Start: 158 @747 has 512 MA's), (204, 870), (221, 960), (227, 996),

Gene: Switzerland\_4 Start: 2425, Stop: 2721, Start Num: 158

Candidate Starts for Switzerland\_4:

(Start: 158 @2425 has 512 MA's), (192, 2515),

Gene: Swole\_2 Start: 834, Stop: 1130, Start Num: 158

Candidate Starts for Swole\_2:

(Start: 122 @786 has 1 MA's), (Start: 158 @834 has 512 MA's), (204, 957), (221, 1047), (227, 1083),

Gene: TChen\_101 Start: 57213, Stop: 57500, Start Num: 167

Candidate Starts for TChen\_101:

(16, 56742), (41, 56943), (56, 56982), (76, 57048), (77, 57051), (Start: 131 @57162 has 1 MA's), (Start: 167 @57213 has 16 MA's),

Gene: TNguyen7\_1 Start: 418, Stop: 714, Start Num: 158

Candidate Starts for TNguyen7\_1:

(Start: 158 @418 has 512 MA's), (206, 553),

Gene: TagePhighter\_3 Start: 730, Stop: 1041, Start Num: 157

Candidate Starts for TagePhighter\_3:

(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (208, 883),

Gene: Tallboi\_69 Start: 43220, Stop: 43522, Start Num: 157

Candidate Starts for Tallboi\_69:

(Start: 157 @43220 has 117 MA's), (213, 43403), (231, 43511),

Gene: Target\_2 Start: 851, Stop: 1147, Start Num: 158

Candidate Starts for Target\_2:

(Start: 122 @803 has 1 MA's), (Start: 158 @851 has 512 MA's), (204, 974), (221, 1064), (227, 1100),

Gene: TarsusIV\_5 Start: 2568, Stop: 2864, Start Num: 158

Candidate Starts for TarsusIV\_5:

(Start: 158 @2568 has 512 MA's),

Gene: Tasp14\_2 Start: 770, Stop: 1066, Start Num: 158

Candidate Starts for Tasp14\_2:

(145, 755), (Start: 158 @770 has 512 MA's), (204, 893), (221, 983), (227, 1019),

Gene: Taurus\_1 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for Taurus\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Tayonia\_79 Start: 49950, Stop: 50285, Start Num: 115

Candidate Starts for Tayonia\_79:

(25, 49677), (Start: 115 @49950 has 28 MA's),

Gene: Tbone\_69 Start: 43742, Stop: 44044, Start Num: 157

Candidate Starts for Tbone\_69:

(Start: 157 @43742 has 117 MA's), (178, 43793), (184, 43808), (201, 43859), (216, 43934), (231, 44033),

Gene: Tefunt\_2 Start: 643, Stop: 966, Start Num: 149

Candidate Starts for Tefunt\_2:

(Start: 149 @643 has 1 MA's), (Start: 158 @652 has 512 MA's), (206, 796), (212, 829),

Gene: Teodoridan\_1 Start: 600, Stop: 896, Start Num: 158

Candidate Starts for Teodoridan\_1:

(Start: 114 @537 has 4 MA's), (Start: 133 @573 has 3 MA's), (141, 582), (Start: 158 @600 has 512 MA's), (204, 723), (221, 813), (227, 849),

Gene: Tesla\_88 Start: 48485, Stop: 48811, Start Num: 158

Candidate Starts for Tesla\_88:

(134, 48458), (Start: 158 @48485 has 512 MA's), (Start: 175 @48527 has 1 MA's), (189, 48572), (205, 48632), (214, 48692), (224, 48752),

Gene: TforTroy\_69 Start: 43283, Stop: 43591, Start Num: 157

Candidate Starts for TforTroy\_69:

(47, 43070), (Start: 157 @43283 has 117 MA's), (213, 43466), (216, 43475), (231, 43574),

Gene: ThankyouJordi\_83 Start: 53067, Stop: 53414, Start Num: 115

Candidate Starts for ThankyouJordi\_83:

(25, 52794), (Start: 115 @53067 has 28 MA's),

Gene: TheloniousMonk\_2 Start: 748, Stop: 1044, Start Num: 158

Candidate Starts for TheloniousMonk\_2:

(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Thestral\_2 Start: 639, Stop: 953, Start Num: 158

Candidate Starts for Thestral\_2:

(Start: 158 @639 has 512 MA's), (206, 783),

Gene: Thor\_2 Start: 757, Stop: 1053, Start Num: 158

Candidate Starts for Thor\_2:

(Start: 158 @757 has 512 MA's), (204, 880), (221, 970), (227, 1006),

Gene: Tian\_67 Start: 43915, Stop: 44217, Start Num: 157

Candidate Starts for Tian\_67:

(Start: 157 @43915 has 117 MA's), (184, 43981), (201, 44032), (213, 44098), (231, 44206),

Gene: Tiffany\_1 Start: 527, Stop: 820, Start Num: 158

Candidate Starts for Tiffany\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Tiger\_1 Start: 534, Stop: 833, Start Num: 138  
Candidate Starts for Tiger\_1:  
(57, 372), (Start: 138 @534 has 40 MA's), (199, 642), (213, 714), (225, 783), (232, 828),

Gene: TimTam\_84 Start: 53045, Stop: 53380, Start Num: 115  
Candidate Starts for TimTam\_84:  
(25, 52772), (Start: 115 @53045 has 28 MA's), (202, 53231),

Gene: Timothy\_4 Start: 2356, Stop: 2652, Start Num: 158  
Candidate Starts for Timothy\_4:  
(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: Timshel\_1 Start: 408, Stop: 704, Start Num: 158  
Candidate Starts for Timshel\_1:  
(91, 297), (Start: 158 @408 has 512 MA's), (225, 654), (230, 672),

Gene: TinaBelcher\_2 Start: 639, Stop: 953, Start Num: 158  
Candidate Starts for TinaBelcher\_2:  
(Start: 158 @639 has 512 MA's), (206, 783),

Gene: TinyTimmy\_4 Start: 2356, Stop: 2652, Start Num: 158  
Candidate Starts for TinyTimmy\_4:  
(Start: 158 @2356 has 512 MA's), (Start: 172 @2389 has 3 MA's), (192, 2446), (232, 2647),

Gene: TopsytheTRex\_4 Start: 2326, Stop: 2622, Start Num: 158  
Candidate Starts for TopsytheTRex\_4:  
(Start: 158 @2326 has 512 MA's),

Gene: Toaka\_4 Start: 2356, Stop: 2682, Start Num: 126  
Candidate Starts for Toaka\_4:  
(Start: 126 @2356 has 3 MA's), (Start: 158 @2389 has 512 MA's), (199, 2491), (204, 2509),

Gene: Todacoro\_1 Start: 445, Stop: 741, Start Num: 158  
Candidate Starts for Todacoro\_1:  
(Start: 158 @445 has 512 MA's), (206, 580),

Gene: Toma\_2 Start: 723, Stop: 1034, Start Num: 157  
Candidate Starts for Toma\_2:  
(Start: 65 @588 has 2 MA's), (Start: 157 @723 has 117 MA's), (186, 795), (195, 825), (204, 852), (216, 915),

Gene: Tomathan\_4 Start: 2345, Stop: 2641, Start Num: 158  
Candidate Starts for Tomathan\_4:  
(Start: 158 @2345 has 512 MA's),

Gene: Toniann\_14 Start: 3268, Stop: 3576, Start Num: 162  
Candidate Starts for Toniann\_14:  
(130, 3238), (Start: 162 @3268 has 21 MA's), (216, 3460), (227, 3532),

Gene: Topanga\_1 Start: 517, Stop: 813, Start Num: 138  
Candidate Starts for Topanga\_1:  
(Start: 138 @517 has 40 MA's),

Gene: Topgun\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Topgun\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Toro\_1 Start: 396, Stop: 692, Start Num: 146

Candidate Starts for Toro\_1:

(93, 300), (Start: 146 @396 has 9 MA's), (225, 642),

Gene: Tote\_2 Start: 834, Stop: 1130, Start Num: 158

Candidate Starts for Tote\_2:

(Start: 122 @786 has 1 MA's), (Start: 158 @834 has 512 MA's), (204, 957), (221, 1047), (227, 1083),

Gene: TouchMeNot\_54 Start: 40155, Stop: 40460, Start Num: 148

Candidate Starts for TouchMeNot\_54:

(Start: 148 @40155 has 3 MA's), (Start: 185 @40230 has 1 MA's), (196, 40251), (212, 40332),

Gene: Towmatter\_9 Start: 2870, Stop: 3172, Start Num: 162

Candidate Starts for Towmatter\_9:

(Start: 162 @2870 has 21 MA's), (182, 2927), (184, 2930), (186, 2933), (212, 3038),

Gene: Traft412\_3 Start: 1245, Stop: 1541, Start Num: 158

Candidate Starts for Traft412\_3:

(Start: 158 @1245 has 512 MA's), (204, 1368), (221, 1458), (227, 1494),

Gene: Travvers\_4 Start: 2345, Stop: 2641, Start Num: 158

Candidate Starts for Travvers\_4:

(Start: 158 @2345 has 512 MA's),

Gene: Treddle\_2 Start: 750, Stop: 1046, Start Num: 158

Candidate Starts for Treddle\_2:

(Start: 158 @750 has 512 MA's), (204, 873), (221, 963), (227, 999),

Gene: Tripl3t\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Tripl3t\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Triste\_2 Start: 730, Stop: 1041, Start Num: 157

Candidate Starts for Triste\_2:

(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (208, 883),

Gene: Triumph\_3 Start: 679, Stop: 993, Start Num: 158

Candidate Starts for Triumph\_3:

(Start: 158 @679 has 512 MA's), (206, 823),

Gene: Trixie\_4 Start: 2424, Stop: 2720, Start Num: 158

Candidate Starts for Trixie\_4:

(Start: 158 @2424 has 512 MA's),

Gene: Troje\_71 Start: 45614, Stop: 45889, Start Num: 143

Candidate Starts for Troje\_71:

(Start: 140 @45611 has 2 MA's), (Start: 143 @45614 has 21 MA's), (169, 45656), (Start: 174 @45668 has 1 MA's), (178, 45680), (207, 45728), (208, 45731), (211, 45758), (212, 45761), (216, 45779),

Gene: Trooper\_5 Start: 2370, Stop: 2666, Start Num: 158  
Candidate Starts for Trooper\_5:  
(Start: 158 @2370 has 512 MA's),

Gene: Trouble\_1 Start: 534, Stop: 893, Start Num: 114  
Candidate Starts for Trouble\_1:  
(Start: 114 @534 has 4 MA's), (Start: 133 @570 has 3 MA's), (141, 579), (Start: 158 @597 has 512 MA's), (204, 720), (221, 810), (227, 846),

Gene: Trumpet\_79 Start: 49951, Stop: 50286, Start Num: 115  
Candidate Starts for Trumpet\_79:  
(25, 49678), (Start: 115 @49951 has 28 MA's),

Gene: TrvxScott\_2 Start: 639, Stop: 953, Start Num: 158  
Candidate Starts for TrvxScott\_2:  
(Start: 158 @639 has 512 MA's), (206, 783),

Gene: TuanPN\_2 Start: 730, Stop: 1041, Start Num: 157  
Candidate Starts for TuanPN\_2:  
(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (195, 832), (204, 859), (216, 922),

Gene: Tubs\_4 Start: 2335, Stop: 2628, Start Num: 154  
Candidate Starts for Tubs\_4:  
(Start: 126 @2308 has 3 MA's), (Start: 154 @2335 has 33 MA's), (199, 2437), (204, 2455),

Gene: Tuck\_69 Start: 43623, Stop: 43925, Start Num: 157  
Candidate Starts for Tuck\_69:  
(Start: 157 @43623 has 117 MA's), (184, 43689), (201, 43740), (216, 43815), (231, 43914),

Gene: Tucker\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for Tucker\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Turab\_68 Start: 42750, Stop: 43052, Start Num: 157  
Candidate Starts for Turab\_68:  
(Start: 157 @42750 has 117 MA's), (178, 42801), (184, 42816), (201, 42867), (216, 42942), (231, 43041),

Gene: Turbido\_5 Start: 2551, Stop: 2847, Start Num: 158  
Candidate Starts for Turbido\_5:  
(Start: 158 @2551 has 512 MA's), (204, 2674),

Gene: Turj99\_1 Start: 598, Stop: 894, Start Num: 158  
Candidate Starts for Turj99\_1:  
(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Tutumahutu\_71 Start: 43324, Stop: 43626, Start Num: 157  
Candidate Starts for Tutumahutu\_71:

(Start: 157 @43324 has 117 MA's), (178, 43375), (184, 43390), (201, 43441), (216, 43516), (231, 43615),

Gene: Tweety19\_69 Start: 40496, Stop: 40801, Start Num: 157

Candidate Starts for Tweety19\_69:

(Start: 157 @40496 has 117 MA's), (181, 40556), (184, 40562), (201, 40613), (231, 40787),

Gene: Twister\_1 Start: 463, Stop: 759, Start Num: 138

Candidate Starts for Twister\_1:

(Start: 138 @463 has 40 MA's),

Gene: TwoPeat\_2 Start: 834, Stop: 1130, Start Num: 158

Candidate Starts for TwoPeat\_2:

(Start: 122 @786 has 1 MA's), (Start: 158 @834 has 512 MA's), (204, 957), (221, 1047), (227, 1083),

Gene: U2\_2 Start: 749, Stop: 1045, Start Num: 158

Candidate Starts for U2\_2:

(Start: 158 @749 has 512 MA's), (204, 872), (221, 962), (227, 998),

Gene: UnionJack\_87 Start: 500, Stop: 799, Start Num: 138

Candidate Starts for UnionJack\_87:

(Start: 138 @500 has 40 MA's), (Start: 164 @515 has 1 MA's), (199, 608), (213, 680), (225, 749), (232, 794),

Gene: Unstoppable\_2 Start: 740, Stop: 1054, Start Num: 157

Candidate Starts for Unstoppable\_2:

(68, 629), (Start: 94 @656 has 2 MA's), (Start: 157 @740 has 117 MA's), (208, 896),

Gene: Updawg\_5 Start: 2624, Stop: 2920, Start Num: 158

Candidate Starts for Updawg\_5:

(59, 2423), (Start: 158 @2624 has 512 MA's),

Gene: Urza\_2 Start: 744, Stop: 1058, Start Num: 158

Candidate Starts for Urza\_2:

(Start: 158 @744 has 512 MA's), (206, 888),

Gene: UtzChips\_77 Start: 46396, Stop: 46695, Start Num: 157

Candidate Starts for UtzChips\_77:

(119, 46351), (Start: 157 @46396 has 117 MA's), (197, 46504), (201, 46513),

Gene: VA6\_4 Start: 2464, Stop: 2760, Start Num: 158

Candidate Starts for VA6\_4:

(Start: 158 @2464 has 512 MA's), (204, 2587),

Gene: VC3\_4 Start: 2344, Stop: 2640, Start Num: 158

Candidate Starts for VC3\_4:

(Start: 158 @2344 has 512 MA's),

Gene: VResidence\_72 Start: 41784, Stop: 42086, Start Num: 157

Candidate Starts for VResidence\_72:

(53, 41574), (Start: 157 @41784 has 117 MA's), (184, 41850), (201, 41901), (231, 42075),

Gene: VWB\_70 Start: 47259, Stop: 47567, Start Num: 156

Candidate Starts for VWB\_70:  
(20, 46878), (156, 47259), (220, 47478),

Gene: Vanisoa\_4 Start: 2102, Stop: 2395, Start Num: 154  
Candidate Starts for Vanisoa\_4:  
(Start: 154 @2102 has 33 MA's), (184, 2168), (199, 2204), (204, 2222),

Gene: VasuNzinga\_90 Start: 48574, Stop: 48900, Start Num: 158  
Candidate Starts for VasuNzinga\_90:  
(134, 48547), (Start: 158 @48574 has 512 MA's), (Start: 175 @48616 has 1 MA's), (189, 48661), (205, 48721), (214, 48781), (224, 48841),

Gene: Verabelle\_3 Start: 950, Stop: 1264, Start Num: 158  
Candidate Starts for Verabelle\_3:  
(150, 944), (Start: 158 @950 has 512 MA's), (184, 1019), (206, 1094),

Gene: Verse\_2 Start: 955, Stop: 1269, Start Num: 158  
Candidate Starts for Verse\_2:  
(50, 751), (51, 754), (98, 856), (150, 949), (Start: 158 @955 has 512 MA's), (184, 1024), (206, 1099), (212, 1132),

Gene: VieEnRose\_2 Start: 744, Stop: 1058, Start Num: 158  
Candidate Starts for VieEnRose\_2:  
(Start: 158 @744 has 512 MA's), (206, 888),

Gene: Vine\_74 Start: 47747, Stop: 48088, Start Num: 146  
Candidate Starts for Vine\_74:  
(135, 47735), (Start: 146 @47747 has 9 MA's), (165, 47771), (Start: 185 @47825 has 1 MA's), (196, 47864), (220, 47984),

Gene: Violet\_2 Start: 748, Stop: 1044, Start Num: 158  
Candidate Starts for Violet\_2:  
(Start: 158 @748 has 512 MA's), (204, 871), (221, 961), (227, 997),

Gene: Vix\_1 Start: 526, Stop: 819, Start Num: 158  
Candidate Starts for Vix\_1:  
(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: VohminGhazi\_4 Start: 2143, Stop: 2439, Start Num: 158  
Candidate Starts for VohminGhazi\_4:  
(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: VroomVroom\_67 Start: 42799, Stop: 43164, Start Num: 151  
Candidate Starts for VroomVroom\_67:  
(75, 42664), (80, 42673), (Start: 151 @42799 has 2 MA's), (181, 42868), (184, 42874), (228, 43069), (231, 43099), (234, 43111),

Gene: Waits\_4 Start: 2278, Stop: 2574, Start Num: 158  
Candidate Starts for Waits\_4:  
(Start: 158 @2278 has 512 MA's), (192, 2368),

Gene: WalterMcMickey\_1 Start: 463, Stop: 759, Start Num: 138  
Candidate Starts for WalterMcMickey\_1:

(Start: 138 @463 has 40 MA's),

Gene: Warda\_70 Start: 43423, Stop: 43725, Start Num: 157

Candidate Starts for Warda\_70:

(Start: 157 @43423 has 117 MA's), (178, 43474), (184, 43489), (201, 43540), (216, 43615), (231, 43714),

Gene: Watermelon\_2 Start: 736, Stop: 1044, Start Num: 158

Candidate Starts for Watermelon\_2:

(Start: 158 @736 has 512 MA's), (204, 859), (221, 949), (227, 985),

Gene: Watson\_1 Start: 526, Stop: 819, Start Num: 158

Candidate Starts for Watson\_1:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: WeiHuaDA\_5 Start: 2558, Stop: 2854, Start Num: 158

Candidate Starts for WeiHuaDA\_5:

(Start: 158 @2558 has 512 MA's), (204, 2681),

Gene: WelcomeAyanna\_83 Start: 53214, Stop: 53561, Start Num: 115

Candidate Starts for WelcomeAyanna\_83:

(25, 52941), (Start: 115 @53214 has 28 MA's),

Gene: Werner\_2 Start: 730, Stop: 1041, Start Num: 157

Candidate Starts for Werner\_2:

(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (208, 883),

Gene: Whabigail7\_5 Start: 2548, Stop: 2844, Start Num: 158

Candidate Starts for Whabigail7\_5:

(Start: 158 @2548 has 512 MA's), (204, 2671),

Gene: Whatever\_2 Start: 589, Stop: 1041, Start Num: 65

Candidate Starts for Whatever\_2:

(Start: 65 @589 has 2 MA's), (79, 628), (Start: 157 @730 has 117 MA's), (186, 802), (208, 883),

Gene: Wheeler\_2 Start: 833, Stop: 1129, Start Num: 158

Candidate Starts for Wheeler\_2:

(Start: 122 @785 has 1 MA's), (Start: 158 @833 has 512 MA's), (204, 956), (221, 1046), (227, 1082),

Gene: Whitty\_58 Start: 40896, Stop: 41195, Start Num: 168

Candidate Starts for Whitty\_58:

(Start: 168 @40896 has 9 MA's), (208, 41019),

Gene: WideWale\_5 Start: 2624, Stop: 2920, Start Num: 158

Candidate Starts for WideWale\_5:

(59, 2423), (Start: 158 @2624 has 512 MA's),

Gene: Wiks\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Wiks\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Wildwest\_65 Start: 43282, Stop: 43584, Start Num: 157

Candidate Starts for Wildwest\_65:



(Start: 157 @43282 has 117 MA's), (181, 43342), (201, 43399), (216, 43474), (231, 43573),

Gene: Wilkins\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Wilkins\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: WilliamBoone\_12 Start: 2893, Stop: 3201, Start Num: 162

Candidate Starts for WilliamBoone\_12:

(130, 2863), (Start: 162 @2893 has 21 MA's), (227, 3157),

Gene: Wooldri\_3 Start: 517, Stop: 819, Start Num: 132

Candidate Starts for Wooldri\_3:

(Start: 132 @517 has 31 MA's), (Start: 158 @526 has 512 MA's), (184, 592),

Gene: Wrigley\_81 Start: 51527, Stop: 51817, Start Num: 167

Candidate Starts for Wrigley\_81:

(128, 51470), (Start: 131 @51476 has 1 MA's), (Start: 167 @51527 has 16 MA's),

Gene: WunderPhul\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for WunderPhul\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: XianYue\_4 Start: 2391, Stop: 2687, Start Num: 158

Candidate Starts for XianYue\_4:

(Start: 158 @2391 has 512 MA's), (202, 2508),

Gene: Yakult\_74 Start: 46869, Stop: 47177, Start Num: 143

Candidate Starts for Yakult\_74:

(104, 46794), (Start: 123 @46839 has 1 MA's), (135, 46860), (Start: 143 @46869 has 21 MA's), (170, 46914), (184, 46953), (199, 46977), (201, 46983), (208, 47016),

Gene: Yang\_68 Start: 42836, Stop: 43144, Start Num: 157

Candidate Starts for Yang\_68:

(Start: 157 @42836 has 117 MA's), (184, 42902), (216, 43028), (231, 43127),

Gene: Yasdni\_2 Start: 729, Stop: 1040, Start Num: 157

Candidate Starts for Yasdni\_2:

(79, 627), (Start: 157 @729 has 117 MA's), (186, 801), (195, 831), (204, 858), (216, 921),

Gene: Yecey3\_4 Start: 2101, Stop: 2394, Start Num: 158

Candidate Starts for Yecey3\_4:

(Start: 158 @2101 has 512 MA's),

Gene: YesChef\_69 Start: 43140, Stop: 43442, Start Num: 157

Candidate Starts for YesChef\_69:

(Start: 157 @43140 has 117 MA's), (178, 43191), (184, 43206), (201, 43257), (216, 43332), (231, 43431),

Gene: Yokurt\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Yokurt\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Yosif\_3 Start: 954, Stop: 1265, Start Num: 158

Candidate Starts for Yosif\_3:

(66, 816), (111, 888), (117, 906), (Start: 158 @954 has 512 MA's), (212, 1128),

Gene: Yummy\_71 Start: 45636, Stop: 45857, Start Num: 174

Candidate Starts for Yummy\_71:

(Start: 140 @45579 has 2 MA's), (Start: 143 @45582 has 21 MA's), (169, 45624), (Start: 174 @45636 has 1 MA's), (178, 45648), (208, 45699), (211, 45726), (212, 45729),

Gene: Yvonnetastic\_14 Start: 3602, Stop: 3910, Start Num: 162

Candidate Starts for Yvonnetastic\_14:

(Start: 162 @3602 has 21 MA's), (212, 3776), (216, 3794), (220, 3815), (231, 3902),

Gene: Zainub\_3 Start: 1037, Stop: 1351, Start Num: 158

Candidate Starts for Zainub\_3:

(79, 911), (Start: 105 @965 has 1 MA's), (Start: 149 @1031 has 1 MA's), (Start: 158 @1037 has 512 MA's), (184, 1106), (206, 1181),

Gene: Zaka\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Zaka\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: Zameen\_79 Start: 49950, Stop: 50285, Start Num: 115

Candidate Starts for Zameen\_79:

(25, 49677), (Start: 115 @49950 has 28 MA's),

Gene: Zeeculate\_1 Start: 596, Stop: 892, Start Num: 158

Candidate Starts for Zeeculate\_1:

(Start: 114 @533 has 4 MA's), (Start: 133 @569 has 3 MA's), (141, 578), (Start: 158 @596 has 512 MA's), (204, 719), (221, 809), (227, 845),

Gene: Zemlya\_2 Start: 703, Stop: 1014, Start Num: 157

Candidate Starts for Zemlya\_2:

(1, 34), (2, 40), (3, 43), (4, 70), (7, 142), (31, 406), (39, 463), (45, 487), (48, 496), (112, 652), (Start: 131 @682 has 1 MA's), (Start: 157 @703 has 117 MA's), (193, 799), (195, 805), (204, 832),

Gene: ZenTime222\_65 Start: 41847, Stop: 42146, Start Num: 168

Candidate Starts for ZenTime222\_65:

(Start: 168 @41847 has 9 MA's), (208, 41970),

Gene: Zephyr\_1 Start: 598, Stop: 894, Start Num: 158

Candidate Starts for Zephyr\_1:

(Start: 114 @535 has 4 MA's), (Start: 133 @571 has 3 MA's), (141, 580), (Start: 158 @598 has 512 MA's), (204, 721), (221, 811), (227, 847),

Gene: Zeta1847\_76 Start: 47529, Stop: 47834, Start Num: 157

Candidate Starts for Zeta1847\_76:

(71, 47376), (Start: 72 @47379 has 1 MA's), (74, 47382), (Start: 157 @47529 has 117 MA's), (233, 47829),

Gene: Zetzy\_1 Start: 518, Stop: 820, Start Num: 132

Candidate Starts for Zetzy\_1:

(Start: 132 @518 has 31 MA's), (Start: 158 @527 has 512 MA's), (184, 593),

Gene: Zeuska\_1 Start: 599, Stop: 895, Start Num: 158

Candidate Starts for Zeuska\_1:

(Start: 114 @536 has 4 MA's), (Start: 133 @572 has 3 MA's), (141, 581), (Start: 154 @596 has 33 MA's), (Start: 158 @599 has 512 MA's), (204, 722), (221, 812), (227, 848),

Gene: Zimmer\_4 Start: 2256, Stop: 2552, Start Num: 155

Candidate Starts for Zimmer\_4:

(40, 1998), (55, 2043), (70, 2094), (Start: 155 @2256 has 4 MA's),

Gene: Zirinka\_79 Start: 51694, Stop: 52026, Start Num: 115

Candidate Starts for Zirinka\_79:

(25, 51421), (Start: 115 @51694 has 28 MA's),

Gene: Zulu\_4 Start: 2143, Stop: 2439, Start Num: 158

Candidate Starts for Zulu\_4:

(Start: 158 @2143 has 512 MA's), (206, 2278),

Gene: phiHau3\_1 Start: 591, Stop: 905, Start Num: 158

Candidate Starts for phiHau3\_1:

(Start: 158 @591 has 512 MA's), (200, 708), (206, 735), (223, 837), (235, 900),