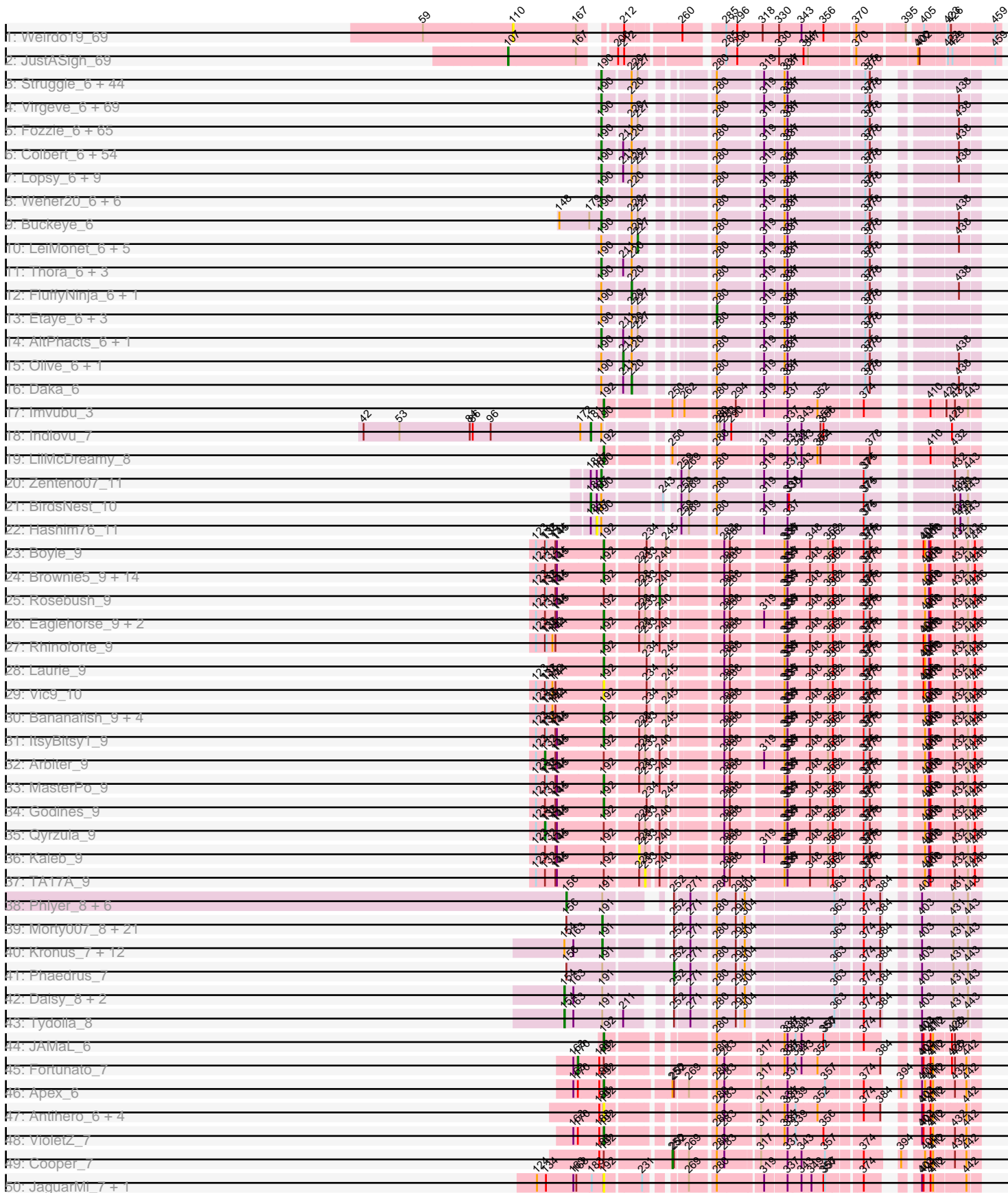
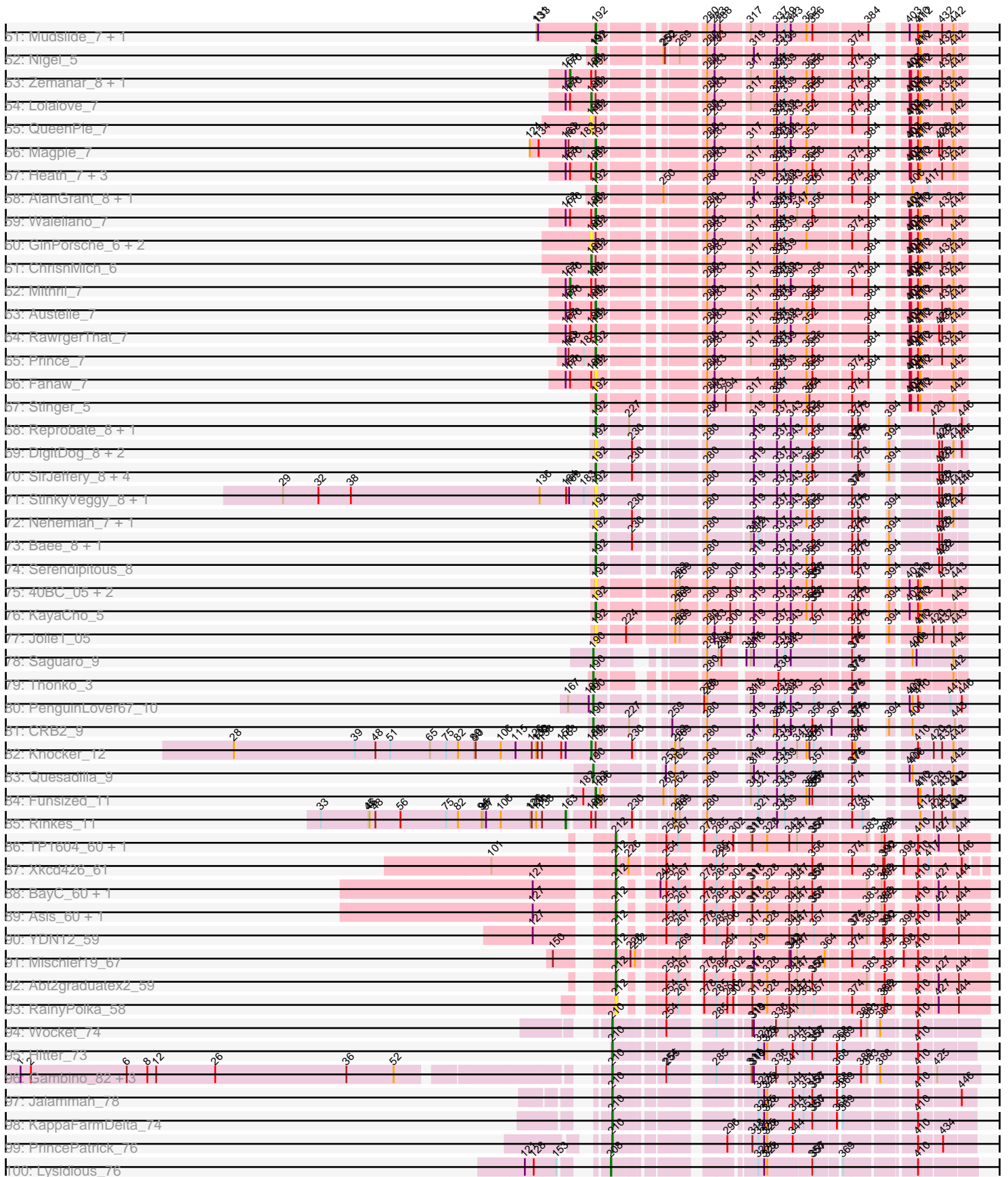


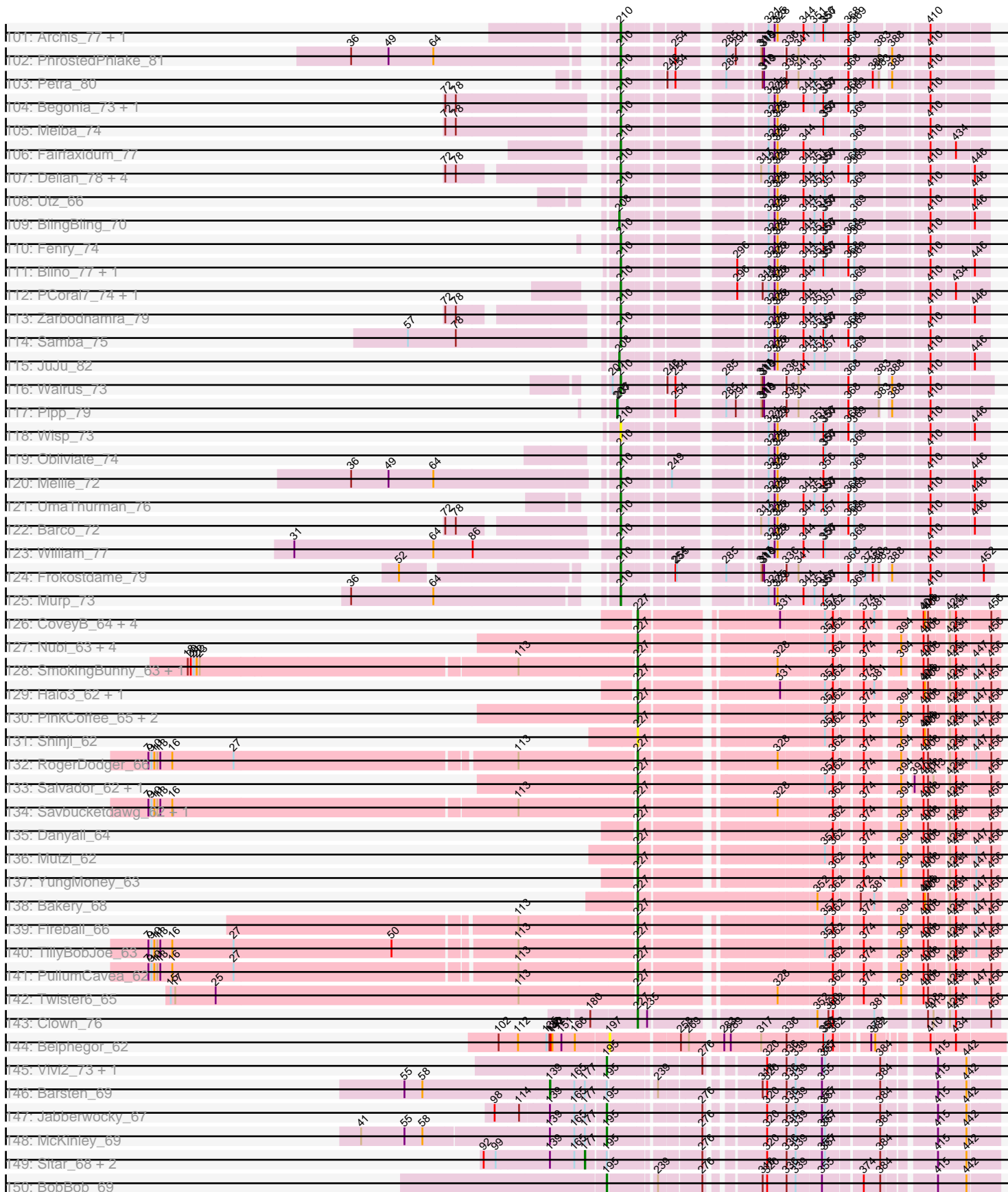
Pham 196161



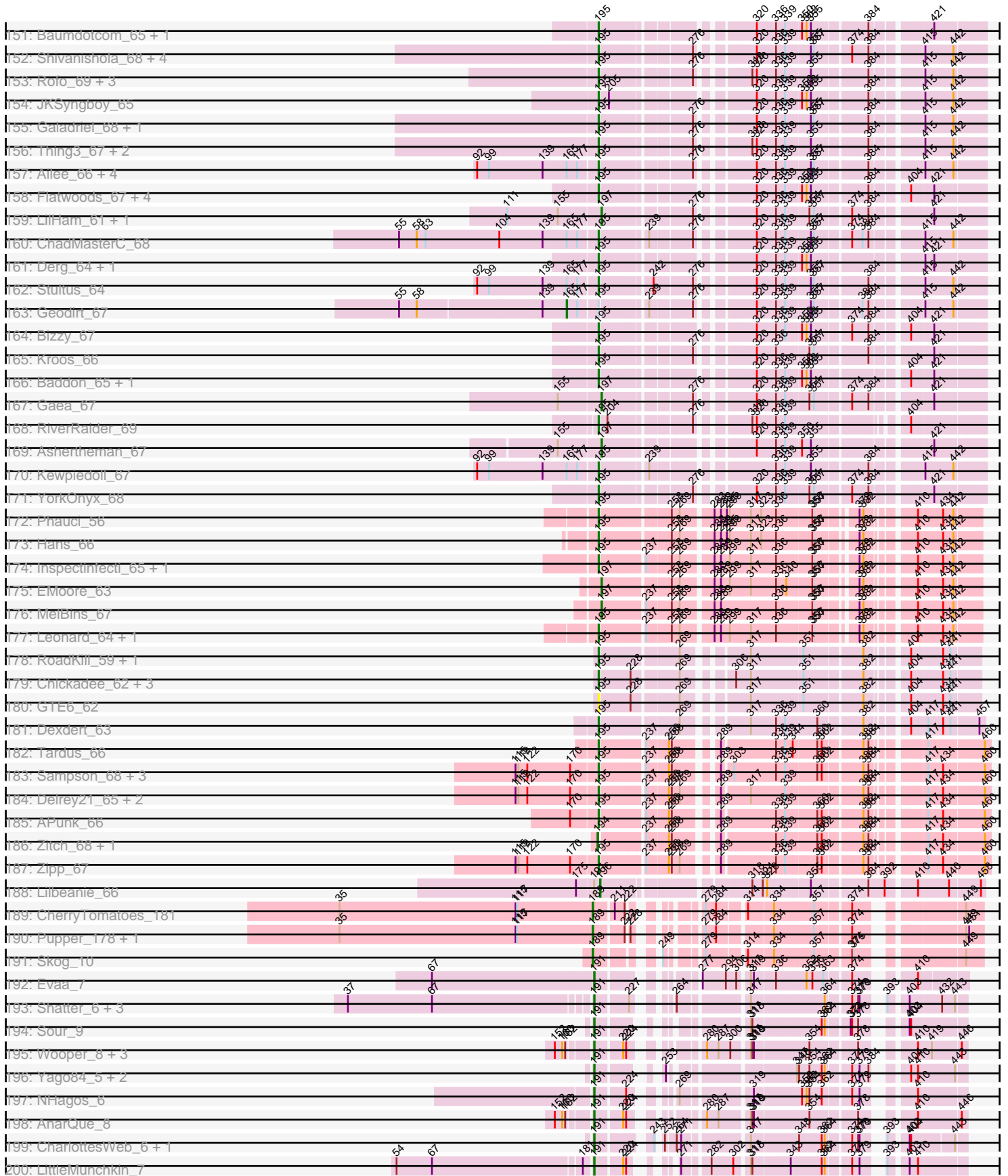
Pham 196161



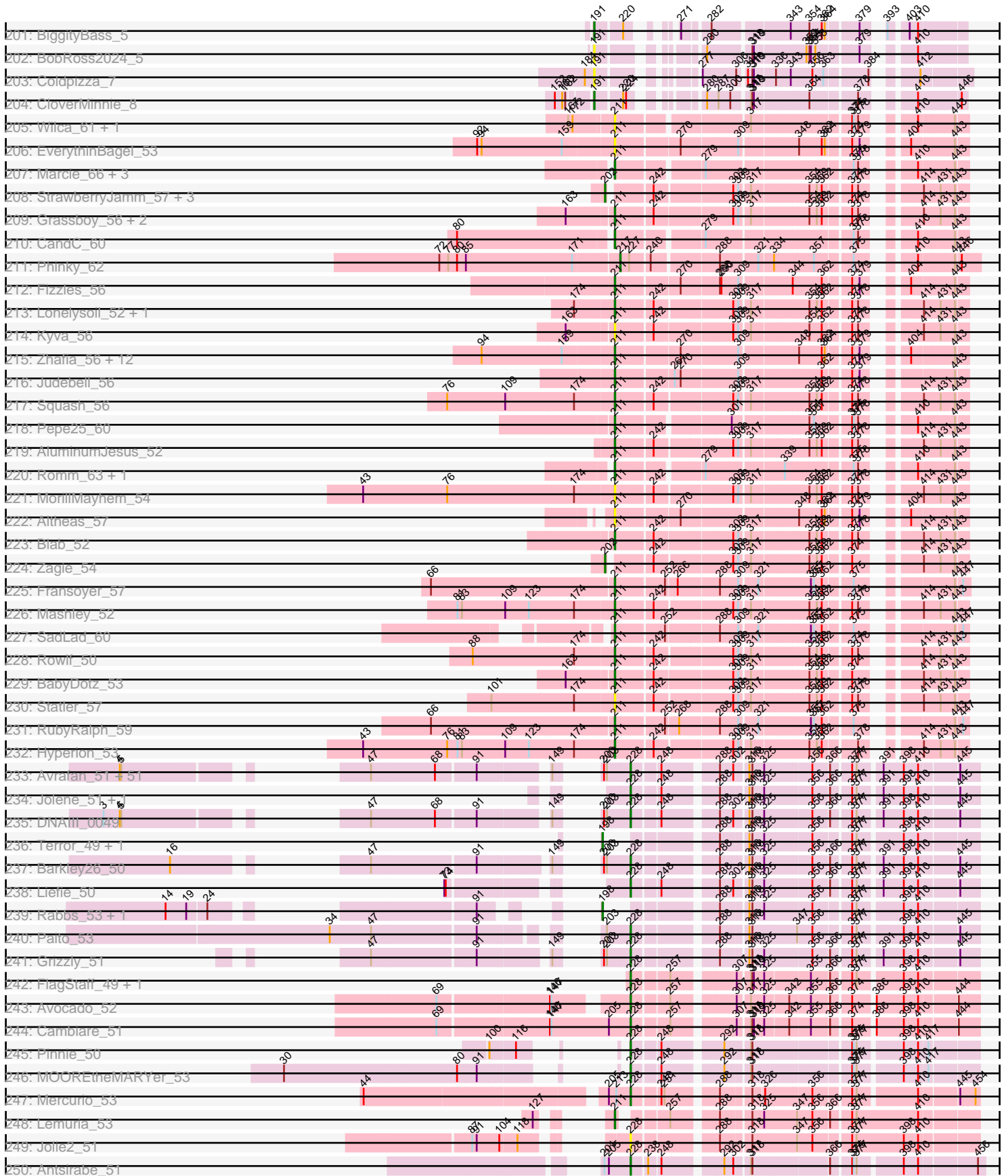
Pham 196161



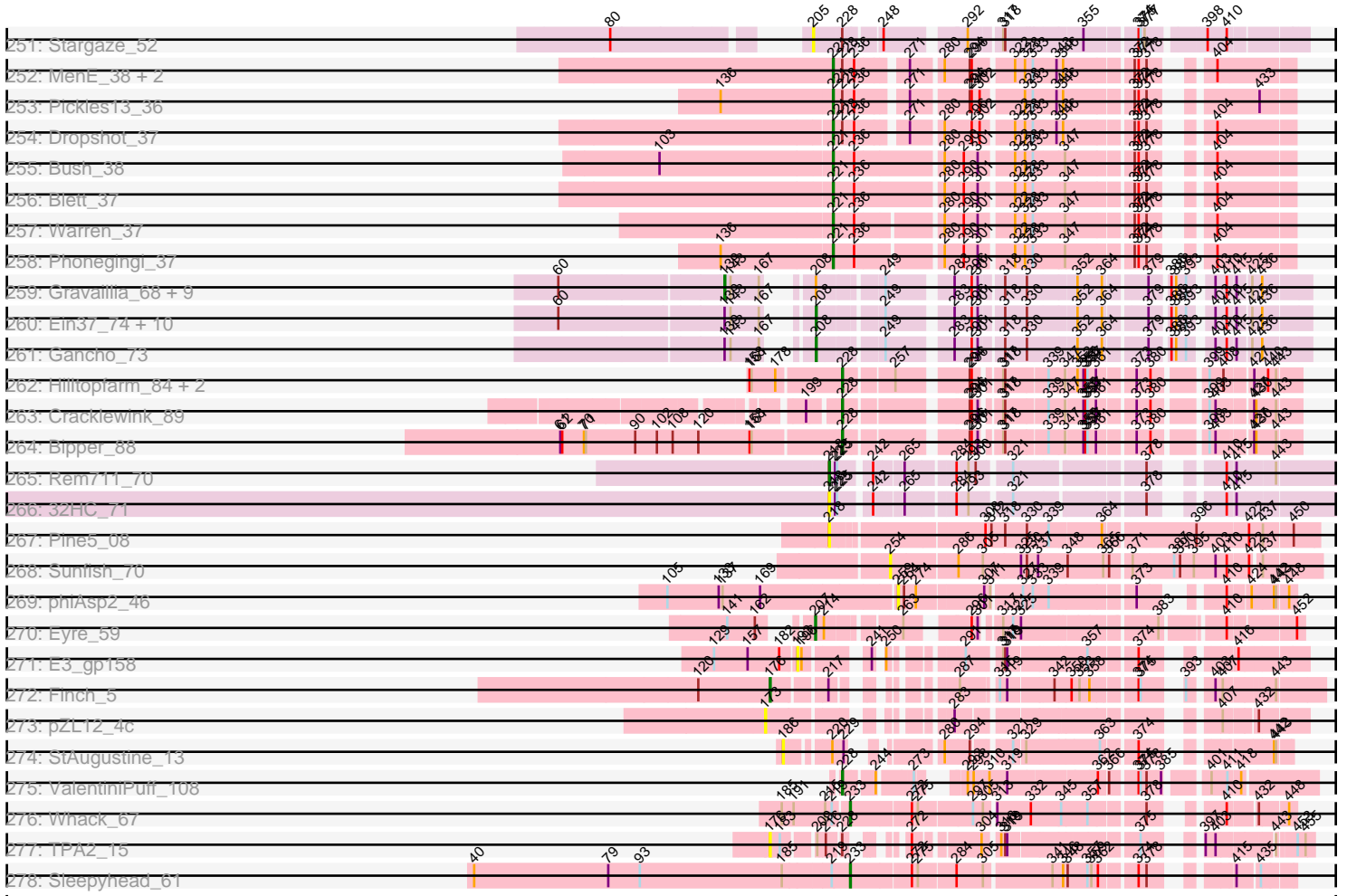
Pham 196161



Pham 196161



Pham 196161



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 196161 Report

This analysis was run 12/09/24 on database version 580.

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 196161 has 801 members, 93 are drafts.

Phages represented in each track:

- Track 1 : Weirdo19\_69
- Track 2 : JustASigh\_69
- Track 3 : Struggle\_6, Selr12\_6, MelsMeow\_6, Doddsville\_6, Plmatters\_6, Mag7\_6, Chunky\_6, Windsor\_6, Veritas\_6, MichaelPhcott\_6, PhrankReynolds\_6, Trypo\_6, Phunky\_6, Tomlahrah\_6, Wallhey\_6, Kimbrough\_6, Lumine\_6, Roliet\_6, Phipps\_6, Crownjwl\_7, Kailash\_6, Labeouficaum\_6, Phleuron\_6, Freya\_6, Oline\_6, Dione\_6, Roscoe\_7, Coletti\_6, Derpp\_6, Phenghiskhan\_6, Olak\_6, Scrick\_6, Melc17\_6, DuchessDung\_6, BatteryCK\_6, Chute\_6, CharlieGBrown\_6, Pinkman\_6, TyrionL\_6, MiniBoss\_6, Kwksand96\_6, Chaelin\_6, Phergie\_6, LuckyMarjie\_6, BlueHusk\_6
- Track 4 : Virgeve\_6, HenryJackson\_6, RedMaple\_6, Childish\_6, Yoshand\_6, Kloppinator\_6, Legolas\_6, Pops\_6, Newman\_6, Craff\_6, LostAndPhound\_6, Timmi\_6, Oosterbaan\_6, Haimas\_6, Megatron\_6, Aelin\_6, Mana\_6, Valjean\_6, Gwilliam\_7, Kahve\_6, TomBombadil\_6, HighStump\_6, Lulumae\_6, MitKao\_6, Xavier\_6, Vaishali24\_6, TallGrassMM\_6, Roy17\_6, Pipsqueak\_6, Held\_6, Squiggle\_6, LemonSlice\_6, BlackStallion\_6, Solosis\_6, Tooj\_6, Potter\_6, Sophia\_6, Nyala\_6, Nicole21\_6, KlimbOn\_6, Daffy\_6, MRabcd\_6, Omniscient\_6, Mutante\_6, Hetaeria\_6, SassyCat97\_6, JangoPhett\_6, Antonia\_6, FriarPreacher\_6, Giraffe\_6, Mecca\_6, Virapocalypse\_6, Apizium\_6, Pherdinand\_6, CheetO\_6, Serpentine\_006, Phareon\_6, Telesworld\_6, Fringe\_6, UAch1\_6, Murdoc\_6, Manad\_6, Waterdiva\_6, Cornobble\_6, Schadenfreude\_6, Piglet\_006, Inverness\_6, Squid\_6, Vivaldi\_6, Hocus\_6
- Track 5 : Fozzie\_6, Brilliant\_6, Orion\_6, Soile\_6, Swish\_6, Eugenia\_6, Adriana\_6, Robyn\_6, ThreeOh3D2\_6, DaddyDaniels\_6, Matalotodo\_6, Orwigg\_7, PhatCats2014\_6, Grand2040\_6, Jiraiya\_6, Burr\_6, DirtJuice\_6, OSmaximus\_6, Placalicious\_6, Boehler\_6, Cobra\_6, Megamind20\_7, Longacauda\_6, Vista\_6, EmpTee\_6, JakeO\_6, Cosmolli16\_6, Fang\_6, Durga\_6, Swiphy\_6, Emiris\_6, Chah\_6, Jiminy\_6, Soto\_6, JDog\_6, ABU\_6, YouGoGlencoco\_6, MrPhizzler\_6, Badfish\_6, Carthage\_6, SDcharge11\_6, Toni\_6, Scoot17C\_6, GeneCoco\_6, Pacifista\_6, DelRivs\_6, ProfessorX\_6, FugateOSU\_6, Mesh1\_6, Zonia\_6, KingTut\_6, Haleema\_6, Lego3393\_6, Duggie\_6, PG1\_6, Mulan\_6, Harvey\_6, Maru\_6, Vaticameos\_6, Dingo\_6, Ricotta\_6, Lasso\_6, PhatLouie\_6, Mikota\_6, Orfeu\_6, Rimu\_6

- Track 6 : Colbert\_6, Morty\_6, HSavage\_6, Skippy\_6, DoesntMatter\_6, DonSanchon\_6, Riggan\_6, PhrodoBaggins\_6, ShiVal\_6, Serendipity\_6, Surely\_6, True\_6, Iridoclysis\_6, Gophee\_6, Usavi\_6, Zaider\_7, SilverBell\_6, Hamish\_6, Lulwa\_6, UncleHowie\_6, Simielle\_6, Sigman\_6, LeeLot\_6, AbsoluteMadLad\_6, Altwerkus\_6, OliverWalter\_6, Cher\_6, Zelda\_6, Kwadwo\_6, Phamished\_6, IsaacEli\_6, QueenBeane\_6, Samaymay\_6, Bishoperium\_6, Anderson\_6, Banjo\_6, Dice\_6, Keitherie\_6, Kikipoo\_6, Vortex\_6, Spartan300\_6, PinheadLarry\_6, Mosaic\_6, Chorkpop\_6, Bluephacebaby\_6, Gareth\_6, CamL\_6, Cannibal\_6, Jillium\_6, Podrick\_6, Quisquillae\_6, Morgushi\_6, Numberten\_6, Mcshane\_6, Slatt\_6
- Track 7 : Lopsy\_6, Basato\_7, Eremos\_6, Gyarad\_006, Suffolk\_6, KLUcky39\_6, Nacho\_006, Sheila\_6, Frankicide\_6, Horchata\_6
- Track 8 : Weher20\_6, Hartsy\_6, Inchworm\_6, CampRoach\_6, LasagnaCat\_6, Dati\_6, Magic8\_6
- Track 9 : Buckeye\_6
- Track 10 : LeiMonet\_6, Andre\_6, Charles1\_6, Katniss\_6, Thunderbird\_6, Schueller\_6
- Track 11 : Thora\_6, Hertubise\_6, Puhltonio\_6, Beaglebox\_6
- Track 12 : FluffyNinja\_6, Prickles\_6
- Track 13 : Etaye\_6, Ashraf\_6, ImtiyazSitla\_6, Maskar\_6
- Track 14 : AltPhacts\_6, KingVeVeVe\_6
- Track 15 : Olive\_6, JacAttac\_6
- Track 16 : Daka\_6
- Track 17 : Imvubu\_3
- Track 18 : Indlovu\_7
- Track 19 : LilMcDreamy\_8
- Track 20 : Zenteno07\_11
- Track 21 : BirdsNest\_10
- Track 22 : Hashim76\_11
- Track 23 : Boyle\_9
- Track 24 : Brownie5\_9, Calamitous\_9, Sabella\_9, Tinciduntolum\_10, Hedgerow\_9, Ares\_9, Kheth\_9, Opia\_9, Lephleur\_9, LizLemon\_9, Holeinone\_9, Lars\_9, Allegro\_9, Phantasmagoria\_9, West99\_9
- Track 25 : Rosebush\_9
- Track 26 : Eaglehorse\_9, Glass\_9, FrenchFry\_9
- Track 27 : Rhinoforte\_9
- Track 28 : Laurie\_9
- Track 29 : Vic9\_10
- Track 30 : Bananafish\_9, Blocker23\_9, Faze9\_9, Tres\_9, Coffee\_9
- Track 31 : ItsyBitsy1\_9
- Track 32 : Arbiter\_9
- Track 33 : MasterPo\_9
- Track 34 : Godines\_9
- Track 35 : Qyrzula\_9
- Track 36 : Kaleb\_9
- Track 37 : TA17A\_9
- Track 38 : Phlyer\_8, Yahalom\_8, Jackstina\_7, Philly\_7, RomaT\_8, Pipefish\_8, Athena\_9
- Track 39 : Morty007\_8, SynergyX\_8, Phayeta\_8, Gervas\_8, HarveySr\_8, Marley1013\_8, RagingRooster\_8, Casbah\_7, Neos5\_8, Rita1961\_8, Halfpint\_7, Heathcliff\_8, Mortcellus\_7, Deenasa\_8, Kamiyu\_8, Corofin\_8, Bernardo\_8, GlenHope\_9, Compostia\_8, Obutu\_8, Chandler\_8, LestyG\_8
- Track 40 : Kronus\_7, Devonte\_8, Gadjet\_9, Baloo\_8, Akoma\_8, Ben11\_7, Audrey\_8, Nozo\_8, Abinghost\_8, MmasiCarm\_8, SlippinJimmy\_8, Yinz\_8,



ChaChing\_8

- Track 41 : Phaedrus\_7
- Track 42 : Daisy\_8, OrangeOswald\_8, Briakila\_8
- Track 43 : Tydolla\_8
- Track 44 : JAMaL\_6
- Track 45 : Fortunato\_7
- Track 46 : Apex\_6
- Track 47 : Antihero\_6, Ahwei\_6, Lambano\_6, Epah\_6, Hally898\_6
- Track 48 : VioletZ\_7
- Track 49 : Cooper\_7
- Track 50 : JaguarMi\_7, Xincheng\_7
- Track 51 : Mudslide\_7, BrownCNA\_7
- Track 52 : Nigel\_5
- Track 53 : Zemanar\_8, Frederick\_7
- Track 54 : Lolalove\_7
- Track 55 : QueenPie\_7
- Track 56 : Magpie\_7
- Track 57 : Heath\_7, BobbyK\_7, Hangman\_7, Hydro\_7
- Track 58 : AlanGrant\_8, Vincenzo\_8
- Track 59 : Waleliano\_7
- Track 60 : GinPorsche\_6, Poster\_6, Nanao\_6
- Track 61 : ChrisnMich\_6
- Track 62 : Mithril\_7
- Track 63 : Austelle\_7
- Track 64 : RawrgerThat\_7
- Track 65 : Prince\_7
- Track 66 : Fanaw\_7
- Track 67 : Stinger\_5
- Track 68 : Reprobate\_8, Phelemich\_8
- Track 69 : DigitDog\_8, Shenyu\_8, Nangang\_8
- Track 70 : SirJeffery\_8, Suigeneris\_8, Acadian\_8, Donny\_8, EastView9101\_8
- Track 71 : StinkyVeggy\_8, KarasumaRum\_8
- Track 72 : Nehemiah\_7, Mysterious\_8
- Track 73 : Bae\_8, Rich\_8
- Track 74 : Serendipitous\_8
- Track 75 : 40BC\_05, 39HC\_05, Hosp\_03
- Track 76 : KayaCho\_5
- Track 77 : Jolie1\_05
- Track 78 : Saguaro\_9
- Track 79 : Thonko\_3
- Track 80 : PenguinLover67\_10
- Track 81 : CRB2\_9
- Track 82 : Knocker\_12
- Track 83 : Quesadilla\_9
- Track 84 : Funsized\_11
- Track 85 : Rinkes\_11
- Track 86 : TP1604\_60, BabyGotBac\_61
- Track 87 : Xkcd426\_61
- Track 88 : BayC\_60, Salete\_60
- Track 89 : Asis\_60, Maih\_59
- Track 90 : YDN12\_59
- Track 91 : Mischief19\_67
- Track 92 : Abt2graduatex2\_59

- Track 93 : RainyPolka\_58
- Track 94 : Wocket\_74
- Track 95 : Hitter\_73
- Track 96 : Gambino\_82, Blueberry\_79, Azula\_80, MissRona\_80
- Track 97 : Jalammah\_78
- Track 98 : KappaFarmDelta\_74
- Track 99 : PrincePatrick\_76
- Track 100 : Lysidious\_76
- Track 101 : Archis\_77, ZiggyZoo\_76
- Track 102 : PhrostedPhlake\_81
- Track 103 : Petra\_80
- Track 104 : Begonia\_73, Malachai\_73
- Track 105 : Melba\_74
- Track 106 : Fairfaxidum\_77
- Track 107 : Delian\_78, Guacamole\_73, JasperJr\_73, MintFen\_75, CaptainKirk2\_75
- Track 108 : Utz\_66
- Track 109 : BlingBling\_70
- Track 110 : Fenry\_74
- Track 111 : Blino\_77, CarolAnn\_76
- Track 112 : PCoral7\_74, Toast\_74
- Track 113 : Zarbodnamra\_79
- Track 114 : Samba\_75
- Track 115 : JuJu\_82
- Track 116 : Walrus\_73
- Track 117 : Pipp\_79
- Track 118 : Wisp\_73
- Track 119 : Obliviate\_74
- Track 120 : Mellie\_72
- Track 121 : UmaThurman\_76
- Track 122 : Barco\_72
- Track 123 : William\_77
- Track 124 : Frokostdame\_79
- Track 125 : Murp\_73
- Track 126 : CoveyB\_64, Valary\_64, Gezellig\_64, VanDeWege\_65, Wizard\_61
- Track 127 : Nubi\_63, Barb\_65, Fugax\_66, ClamChowder\_65, KimmyK\_64
- Track 128 : SmokingBunny\_63, Togo\_62
- Track 129 : Halo3\_62, Portcullis\_65
- Track 130 : PinkCoffee\_65, Arri\_64, Phlop\_61
- Track 131 : Shinji\_62
- Track 132 : RogerDodger\_66
- Track 133 : Salvador\_62, Evamon\_62
- Track 134 : Savbucketdawg\_62, Jambalaya\_62
- Track 135 : Danyall\_64
- Track 136 : Mutzi\_62
- Track 137 : YungMoney\_63
- Track 138 : Bakery\_68
- Track 139 : Fireball\_66
- Track 140 : TillyBobJoe\_63
- Track 141 : PullumCavea\_62
- Track 142 : Twister6\_65
- Track 143 : Clown\_76
- Track 144 : Belphegor\_62
- Track 145 : Vivi2\_73, Nordenberg\_67

- Track 146 : Barsten\_69
- Track 147 : Jabberwocky\_67
- Track 148 : McKinley\_69
- Track 149 : Sitar\_68, Bibwit\_67, Lennon\_68
- Track 150 : BobBob\_69
- Track 151 : Baumdotcom\_65, Tangerine\_67
- Track 152 : Shivanishola\_68, MoontowerMania\_68, Affeca\_69, Love\_73, Angelicage\_67
- Track 153 : Rofo\_69, Tangent\_71, Charming\_72, Fosterous\_71
- Track 154 : JKSyngboy\_65
- Track 155 : Galadriel\_68, Paries\_70
- Track 156 : Thing3\_67, Brandonk123\_73, Kamashten\_67
- Track 157 : Ailee\_66, Sedona\_67, Fitzgerald\_67, Keitabear\_67, Sanjuju\_67
- Track 158 : Flatwoods\_67, Gustavo\_68, Saronaya\_68, Kwobi\_69, StorminNorm\_67
- Track 159 : LilHam\_61, SchottB\_64
- Track 160 : ChadMasterC\_68
- Track 161 : Derg\_64, Ribeye\_67
- Track 162 : Stultus\_64
- Track 163 : Geodirt\_67
- Track 164 : Bizzy\_67
- Track 165 : Kroos\_66
- Track 166 : Baddon\_65, Tycho\_65
- Track 167 : Gaea\_67
- Track 168 : RiverRaider\_69
- Track 169 : Ashertheman\_67
- Track 170 : Kewpiedoll\_67
- Track 171 : YorkOnyx\_68
- Track 172 : Phauci\_56
- Track 173 : Hans\_66
- Track 174 : Inspectinfecti\_65, Ali17\_61
- Track 175 : EMOore\_63
- Track 176 : MelBins\_67
- Track 177 : Leonard\_64, Phinally\_64
- Track 178 : RoadKill\_59, EdmundFerry\_59
- Track 179 : Chickadee\_62, Twonlo\_60, Kwekel\_62, Tiamoceli\_62
- Track 180 : GTE6\_62
- Track 181 : Dexdert\_63
- Track 182 : Tardus\_66
- Track 183 : Sampson\_68, Natkenzie\_66, Abblin\_66, Scioto\_66
- Track 184 : Delrey21\_65, DoctorFroggo\_65, Verity\_65
- Track 185 : APunk\_66
- Track 186 : Zitch\_68, ViaConlectus\_65
- Track 187 : Zipp\_67
- Track 188 : Lilbeanie\_66
- Track 189 : CherryTomatoes\_181
- Track 190 : Pupper\_178, SCentae\_177
- Track 191 : Skog\_10
- Track 192 : Evaa\_7
- Track 193 : Shatter\_6, Ligma\_6, Fresco\_6, Axumite\_6
- Track 194 : Sour\_9
- Track 195 : Wooper\_8, MossRose\_8, CaiB\_8, MakoManhole\_8
- Track 196 : Yago84\_5, Sisko\_5, AnClar\_5
- Track 197 : NHagos\_6

- Track 198 : AnarQue\_8
- Track 199 : CharlottesWeb\_6, Mariokart\_6
- Track 200 : LittleMunchkin\_7
- Track 201 : BiggityBass\_5
- Track 202 : BobRoss2024\_5
- Track 203 : Coldpizza\_7
- Track 204 : CloverMinnie\_8
- Track 205 : Wilca\_61, BirdInFrench\_61
- Track 206 : EverythinBagel\_53
- Track 207 : Marcie\_66, Kelcole\_59, Tempo\_61, OneinaGillian\_61
- Track 208 : StrawberryJamm\_57, FrankDeliGuy\_51, Namago\_54, SallyK\_55
- Track 209 : Grassboy\_56, Nike\_54, Tissue\_54
- Track 210 : CandC\_60
- Track 211 : Phinky\_62
- Track 212 : Fizzles\_56
- Track 213 : Lonelysoil\_52, Gazebo\_53
- Track 214 : Kyva\_56
- Track 215 : Zhafia\_56, Rudy\_51, Wayne3\_55, Wheelie\_53, DonaldDuck\_53, Casend\_54, Llemily\_53, Sillytadpoles\_54, Jehoshaphat\_55, Quammi\_51, Viceroy\_52, Teehee\_54, Phabia\_53
- Track 216 : Judebell\_56
- Track 217 : Squash\_56
- Track 218 : Pepe25\_60
- Track 219 : AluminumJesus\_52
- Track 220 : Romm\_63, RobinRose\_63
- Track 221 : MorillMayhem\_54
- Track 222 : Altheas\_57
- Track 223 : Blab\_52
- Track 224 : Zagie\_54
- Track 225 : Fransoyer\_57
- Track 226 : Mashley\_52
- Track 227 : SadLad\_60
- Track 228 : Rowlf\_50
- Track 229 : BabyDotz\_53
- Track 230 : Statler\_57
- Track 231 : RubyRalph\_59
- Track 232 : Hyperion\_53
- Track 233 : Avrafan\_51, Hotshotbaby7\_51, Hope\_51, BPs\_51, Renaissance\_51, Cedasite\_51, GoldenAsh\_50, LouisV14\_53, TomBrady\_51, DMoney\_50, ECartman\_49, Sizemore\_51, Chance64\_51, Wendigo\_49, Kareem\_51, Marmie\_51, Gideon\_52, Remy19\_51, Darionha\_51, Crespo\_50, Gomashi\_50, AzulaCat\_49, Camri\_51, BQuat\_51, Jonghyun\_49, Halo\_51, ZoMa\_49, BruceB\_51, Aroostook\_51, Peeb\_50, Plagueis\_51, Cherrybomb426\_51, Phreak\_51, Mowgli\_51, Frosty24\_51, CLED96\_51, Sweets\_50, Kasen3\_51, Maliketh\_49, Olga\_51, Zombie\_50, Phish\_50, JorRay\_51, Coleslaw\_51, Annihilator\_51, ShaboiShabazz\_50, PinkYoshi\_51, Jane\_51, CassieYates\_51, OctaviousRex\_50, Angel\_51, Schiebel\_51
- Track 234 : Jolene\_51, Periodt\_51
- Track 235 : DNAlll\_0049
- Track 236 : Terror\_49, Taheera\_49
- Track 237 : Barkley26\_50
- Track 238 : Liefie\_50
- Track 239 : Rabbs\_53, Sneeze\_52
- Track 240 : Paito\_53

- Track 241 : Grizzly\_51
- Track 242 : FlagStaff\_49, Pace1224\_50
- Track 243 : Avocado\_52
- Track 244 : Cambiare\_51
- Track 245 : Pinnie\_50
- Track 246 : MOOREtheMARYer\_53
- Track 247 : Mercurio\_53
- Track 248 : Lemuria\_53
- Track 249 : Jolie2\_51
- Track 250 : Antsirabe\_51
- Track 251 : Stargaze\_52
- Track 252 : MenE\_38, Appa\_37, Antuna\_38
- Track 253 : Pickles13\_36
- Track 254 : Dropshot\_37
- Track 255 : Bush\_38
- Track 256 : Blett\_37
- Track 257 : Warren\_37
- Track 258 : Phonegingi\_37
- Track 259 : Gravaiilia\_68, Giles\_67, Hadrien\_71, Forge\_67, Luke\_71, Hail\_67, Wishmaker\_67, Luna22\_67, Dewey\_67, Daegal\_76
- Track 260 : Ein37\_74, HH92\_73, Amymech\_74, Webster2\_74, OBUpride\_73, LilHazelnut\_74, Ubuntu\_74, DeepSoil15\_74, Evanesce\_73, Amochick\_75, Kinbote\_72
- Track 261 : Gancho\_73
- Track 262 : Hilltopfarm\_84, AuntGwenStacy\_83, Typha\_83
- Track 263 : Cracklewink\_89
- Track 264 : Bipper\_88
- Track 265 : Rem711\_70
- Track 266 : 32HC\_71
- Track 267 : Pine5\_08
- Track 268 : Sunfish\_70
- Track 269 : phiAsp2\_46
- Track 270 : Eyre\_59
- Track 271 : E3\_gp158
- Track 272 : Finch\_5
- Track 273 : pZL12\_4c
- Track 274 : StAugustine\_13
- Track 275 : ValentiniPuff\_108
- Track 276 : Whack\_67
- Track 277 : TPA2\_15
- Track 278 : Sleepyhead\_61

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

The start number called the most often in the published annotations is 190, it was called in 256 of the 708 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU\_6, AbsoluteMadLad\_6, Adriana\_6, Aelin\_6, AltPhacts\_6, Altwerkus\_6, Anderson\_6, Antonia\_6, Apizium\_6, Badfish\_6, Banjo\_6, Basato\_7, BatteryCK\_6,

Beaglebox\_6, Bishoperium\_6, BlackStallion\_6, BlueHusk\_6, Bluephacebaby\_6, Boehler\_6, Brilliant\_6, Buckeye\_6, Burr\_6, CRB2\_9, CamL\_6, CampRoach\_6, Cannibal\_6, Carthage\_6, Chaelin\_6, Chah\_6, CharlieGBrown\_6, CheetO\_6, Cher\_6, Childish\_6, Chorkpop\_6, Chunky\_6, Chute\_6, Cobra\_6, Colbert\_6, Coletti\_6, Cornobble\_6, Cosmolli16\_6, Craff\_6, Crownjwl\_7, DaddyDaniels\_6, Daffy\_6, Dati\_6, DelRivs\_6, Derpp\_6, Dice\_6, Dingo\_6, Dione\_6, DirtJuice\_6, Doddsville\_6, DoesntMatter\_6, DonSanchon\_6, DuchessDung\_6, Duggie\_6, Durga\_6, Emiris\_6, EmpTee\_6, Eremos\_6, Eugenia\_6, Fang\_6, Fozzie\_6, Frankicide\_6, Freya\_6, FriarPreacher\_6, Fringe\_6, FugateOSU\_6, Gareth\_6, GeneCoco\_6, Giraffe\_6, Gophee\_6, Grand2040\_6, Gwilliam\_7, Gyarad\_006, HSavage\_6, Haimas\_6, Haleema\_6, Hamish\_6, Hartsy\_6, Harvey\_6, Held\_6, HenryJackson\_6, Hertubise\_6, Hetaeria\_6, HighStump\_6, Hocus\_6, Horchata\_6, Inchworm\_6, Inverness\_6, Iridoclysis\_6, IsaacEli\_6, JDog\_6, JakeO\_6, JangoPhett\_6, Jillium\_6, Jiminy\_6, Jiraiya\_6, KLucky39\_6, Kahve\_6, Kailash\_6, Keitherie\_6, Kikipoo\_6, Kimbrough\_6, KingTut\_6, KingVeVeVe\_6, KlimbOn\_6, Kloppinator\_6, Kwadwo\_6, Kwksand96\_6, Labeouficaum\_6, LasagnaCat\_6, Lasso\_6, LeeLot\_6, Lego3393\_6, Legolas\_6, LemonSlice\_6, Longacauda\_6, Lopsy\_6, LostAndPhound\_6, LuckyMarjie\_6, Lulumae\_6, Lulwa\_6, Lumine\_6, MRabcd\_6, Mag7\_6, Magic8\_6, Mana\_6, Manad\_6, Maru\_6, Matalotodo\_6, Mcshane\_6, Mecca\_6, Megamind20\_7, Megatron\_6, Melc17\_6, MelsMeow\_6, Mesh1\_6, MichaelPhcott\_6, Mikota\_6, MiniBoss\_6, MitKao\_6, Morgushi\_6, Morty\_6, Mosaic\_6, MrPhizzler\_6, Mulan\_6, Murdoc\_6, Mutante\_6, Nacho\_006, Newman\_6, Nicole21\_6, Numberten\_6, Nyala\_6, OSmaximus\_6, Olak\_6, Oline\_6, OliverWalter\_6, Omniscient\_6, Oosterbaan\_6, Orfeu\_6, Orion\_6, Orwigg\_7, PG1\_6, Pacifista\_6, PenguinLover67\_10, Phamished\_6, Phareon\_6, PhatCats2014\_6, PhatLouie\_6, PhenghisKhan\_6, Pherdinand\_6, Phergie\_6, Phipps\_6, Phleuron\_6, PhrankReynolds\_6, PhrodoBaggins\_6, Phunky\_6, Piglet\_006, PinheadLarry\_6, Pinkman\_6, Pipsqueak\_6, Placalicious\_6, Plmatters\_6, Podrick\_6, Pops\_6, Potter\_6, ProfessorX\_6, Puhltonio\_6, QueenBeane\_6, Quesadilla\_9, Quisquillae\_6, RedMaple\_6, Ricotta\_6, Riggan\_6, Rimu\_6, Robyn\_6, Roliet\_6, Roscoe\_7, Roy17\_6, SDcharge11\_6, Saguaro\_9, Samaymay\_6, SassyCat97\_6, Schadenfreude\_6, Scoot17C\_6, Scrick\_6, Selr12\_6, Serendipity\_6, Serpentine\_006, Sheila\_6, ShiVal\_6, Sigman\_6, SilverBell\_6, Simielle\_6, Skippy\_6, Slatt\_6, Soile\_6, Solosis\_6, Sophia\_6, Soto\_6, Spartan300\_6, Squid\_6, Squiggle\_6, Struggle\_6, Suffolk\_6, Surely\_6, Swiphy\_6, Swish\_6, TallGrassMM\_6, Telesworld\_6, Thonko\_3, Thora\_6, ThreeOh3D2\_6, Timmi\_6, TomBombadil\_6, Tomlarah\_6, Toni\_6, Tooj\_6, True\_6, Trypo\_6, TyrionL\_6, UAch1\_6, UncleHowie\_6, Usavi\_6, Vaishali24\_6, Valjean\_6, Vaticameos\_6, Veritas\_6, Virapocalypse\_6, Virgeve\_6, Vista\_6, Vivaldi\_6, Vortex\_6, Wallhey\_6, Waterdiva\_6, Weher20\_6, Windsor\_6, Xavier\_6, Yoshand\_6, YouGoGlencoco\_6, Zaider\_7, Zelda\_6, Zenteno07\_11, Zonia\_6,

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

- Andre\_6, Ashraf\_6, BirdsNest\_10, Charles1\_6, Daka\_6, Etaye\_6, FluffyNinja\_6, Hashim76\_11, ImtiyazSitra\_6, Indlovu\_7, JacAttac\_6, Katniss\_6, LeiMonet\_6, Maskar\_6, Olive\_6, Prickles\_6, Schueller\_6, Thunderbird\_6,

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

- 32HC\_71, 39HC\_05, 40BC\_05, APunk\_66, Abblin\_66, Abinghost\_8, Abt2graduatex2\_59, Acadian\_8, Affeca\_69, Ahwei\_6, Ailee\_66, Akoma\_8, AlanGrant\_8, Ali17\_61, Allegro\_9, Altheas\_57, AluminumJesus\_52, Amochick\_75, Amymech\_74, AnClar\_5, AnarQue\_8, Angel\_51, Angelicage\_67, Annihilator\_51, Antihero\_6, Antsirabe\_51, Antuna\_38, Apex\_6, Appa\_37, Arbiter\_9, Archis\_77, Ares\_9, Aroostook\_51, Arri\_64, Ashertheman\_67, Asis\_60, Athena\_9, Audrey\_8,

AuntGwenStacy\_83, Austelle\_7, Avocado\_52, Avrafan\_51, Axumite\_6, AzulaCat\_49, Azula\_80, BPs\_51, BQuat\_51, BabyDotz\_53, BabyGotBac\_61, Baddon\_65, Bae\_8, Bakery\_68, Baloo\_8, Bananafish\_9, Barb\_65, Barco\_72, Barkley26\_50, Barsten\_69, Baumdotcom\_65, BayC\_60, Begonia\_73, Belphegor\_62, Ben11\_7, Bernardo\_8, Bibwit\_67, BiggityBass\_5, Bipper\_88, BirdInFrench\_61, Bizzy\_67, Blab\_52, Blett\_37, BlingBling\_70, Blino\_77, Blocker23\_9, Blueberry\_79, BobBob\_69, BobRoss2024\_5, BobbyK\_7, Boyle\_9, Brandonk123\_73, Briakila\_8, BrownCNA\_7, Brownie5\_9, BruceB\_51, Bush\_38, CLED96\_51, CaiB\_8, Calamitous\_9, Cambiare\_51, Camri\_51, CandC\_60, CaptainKirk2\_75, CarolAnn\_76, Casbah\_7, Casend\_54, CassieYates\_51, Cedasite\_51, ChaChing\_8, ChadMasterC\_68, Chance64\_51, Chandler\_8, CharlottesWeb\_6, Charming\_72, CherryTomatoes\_181, Cherrybomb426\_51, Chickadee\_62, ChrisnMich\_6, ClamChowder\_65, CloverMinnie\_8, Clown\_76, Coffee\_9, Coldpizza\_7, Coleslaw\_51, Compostia\_8, Cooper\_7, Corofin\_8, CoveyB\_64, Cracklewink\_89, Crespo\_50, DMoney\_50, DNAIII\_0049, Daegal\_76, Daisy\_8, Danyall\_64, Darionha\_51, Deenasa\_8, DeepSoil15\_74, Delian\_78, Delrey21\_65, Derg\_64, Devonte\_8, Dewey\_67, Dextert\_63, DigitDog\_8, DoctorFroggo\_65, DonaldDuck\_53, Donny\_8, Dropshot\_37, E3\_gp158, ECartman\_49, EMOore\_63, Eaglehorse\_9, EastView9101\_8, EdmundFerry\_59, Ein37\_74, Epah\_6, Evaa\_7, Evamon\_62, Evanesce\_73, EverythinBagel\_53, Eyre\_59, Fairfaxidum\_77, Fanaw\_7, Faze9\_9, Fenry\_74, Finch\_5, Fireball\_66, Fitzgerald\_67, Fizzles\_56, FlagStaff\_49, Flatwoods\_67, Forge\_67, Fortunato\_7, Fosterous\_71, FrankDeliGuy\_51, Fransoyer\_57, Frederick\_7, FrenchFry\_9, Fresco\_6, Frokostdame\_79, Frosty24\_51, Fugax\_66, Funsized\_11, GTE6\_62, Gadget\_9, Gaea\_67, Galadriel\_68, Gambino\_82, Gancho\_73, Gazebo\_53, Geodirt\_67, Gervas\_8, Gezellig\_64, Gideon\_52, Giles\_67, GinPorsche\_6, Glass\_9, GlenHope\_9, Godines\_9, GoldenAsh\_50, Gomashi\_50, Grassboy\_56, Gravaiilia\_68, Grizzly\_51, Guacamole\_73, Gustavo\_68, HH92\_73, Hadrien\_71, Hail\_67, Halfpint\_7, Hally898\_6, Halo3\_62, Halo\_51, Hangman\_7, Hans\_66, HarveySr\_8, Heath\_7, Heathcliff\_8, Hedgerow\_9, Hilltopfarm\_84, Hitter\_73, Holeinone\_9, Hope\_51, Hosp\_03, Hotshotbaby7\_51, Hydro\_7, Hyperion\_53, Imvubu\_3, Inspectinfecti\_65, ItsyBitsy1\_9, JAMaL\_6, JKSyngboy\_65, Jabberwocky\_67, Jackstina\_7, JaguarMi\_7, Jalammah\_78, Jambalaya\_62, Jane\_51, JasperJr\_73, Jehoshaphat\_55, Jolene\_51, Jolie1\_05, Jolie2\_51, Jonghyun\_49, JorRay\_51, JuJu\_82, Judebell\_56, JustASigh\_69, Kaleb\_9, Kamashten\_67, Kamiyu\_8, KappaFarmDelta\_74, KarasumaRum\_8, Kareem\_51, Kasen3\_51, KayaCho\_5, Keitabear\_67, Kelcole\_59, Kewpiedoll\_67, Kheth\_9, KimmyK\_64, Kinbote\_72, Knocker\_12, Kronus\_7, Kroos\_66, Kwekel\_62, Kwobi\_69, Kyva\_56, Lambano\_6, Lars\_9, Laurie\_9, Lemuria\_53, Lennon\_68, Leonard\_64, Lephleur\_9, LestyG\_8, Liefie\_50, Ligma\_6, LilHam\_61, LilHazelNut\_74, LilMcDreamy\_8, Lilbeanie\_66, LittleMunchkin\_7, LizLemon\_9, Llemily\_53, Lolalove\_7, Lonelysoil\_52, LouisV14\_53, Love\_73, Luke\_71, Luna22\_67, Lysidious\_76, MOOREtheMARYer\_53, Magpie\_7, Maih\_59, MakoManhole\_8, Malachai\_73, Maliketh\_49, Marcie\_66, Mariokart\_6, Marley1013\_8, Marmie\_51, Mashley\_52, MasterPo\_9, McKinley\_69, MelBins\_67, Melba\_74, Mellie\_72, MenE\_38, Mercurio\_53, MintFen\_75, Mischief19\_67, MissRona\_80, Mithril\_7, MmasiCarm\_8, MoontowerMania\_68, MorillMayhem\_54, Mortcellus\_7, Morty007\_8, MossRose\_8, Mowgli\_51, Mudslide\_7, Murp\_73, Mutzi\_62, Mysterious\_8, NHagos\_6, Namago\_54, Nanao\_6, Nangang\_8, Natkenzie\_66, Nehemiah\_7, Neos5\_8, Nigel\_5, Nike\_54, Nordenberg\_67, Nozo\_8, Nubi\_63, OBUpride\_73, Obliviate\_74, Obutu\_8, OctaviousRex\_50, Olga\_51, OneinaGillian\_61, Opia\_9, OrangeOswald\_8, PCoral7\_74, Pace1224\_50, Paito\_53, Paries\_70, Peeb\_50, Pepe25\_60, Periodt\_51, Petra\_80, Phabia\_53, Phaedrus\_7, Phantasmagoria\_9, Phauci\_56, Phayeta\_8, Phelemich\_8, Philly\_7, Phinally\_64, Phinky\_62, Phish\_50, Phlop\_61, Phlyer\_8,

Phonegingi\_37, Phreak\_51, PhrostedPhlake\_81, Pickles13\_36, Pine5\_08, PinkCoffee\_65, PinkYoshi\_51, Pinnie\_50, Pipefish\_8, Pipp\_79, Plagueis\_51, Portcullis\_65, Poster\_6, PrincePatrick\_76, Prince\_7, PullumCavea\_62, Pupper\_178, Quammi\_51, QueenPie\_7, Qyrzula\_9, Rabbs\_53, RagingRooster\_8, RainyPolka\_58, RawrgerThat\_7, Rem711\_70, Remy19\_51, Renaissance\_51, Reprobate\_8, Rhinoforte\_9, Ribeye\_67, Rich\_8, Rinkes\_11, Rita1961\_8, RiverRaider\_69, RoadKill\_59, RobinRose\_63, Rofo\_69, RogerDodger\_66, RomaT\_8, Romm\_63, Rosebush\_9, Rowlf\_50, RubyRalph\_59, Rudy\_51, SCentae\_177, Sabella\_9, SadLad\_60, Saletе\_60, SallyK\_55, Salvador\_62, Samba\_75, Sampson\_68, Sanjuju\_67, Saronaya\_68, Savbucketdawg\_62, Schiebel\_51, SchottB\_64, Scioto\_66, Sedona\_67, Serendipitous\_8, ShaboiShabazz\_50, Shatter\_6, Shenyu\_8, Shinji\_62, Shivanishola\_68, Sillytadpoles\_54, SirJeffery\_8, Sisko\_5, Sitar\_68, Sizemore\_51, Skog\_10, Sleepyhead\_61, SlippinJimmy\_8, SmokingBunny\_63, Sneeze\_52, Sour\_9, Squash\_56, StAugustine\_13, Stargaze\_52, Statler\_57, Stinger\_5, StinkyVeggy\_8, StorminNorm\_67, StrawberryJamm\_57, Stultus\_64, Suigeneris\_8, Sunfish\_70, Sweets\_50, SynergyX\_8, TA17A\_9, TP1604\_60, TPA2\_15, Taheera\_49, Tangent\_71, Tangerine\_67, Tardus\_66, Teehee\_54, Tempo\_61, Terror\_49, Thing3\_67, Tiamoceli\_62, TillyBobJoe\_63, Tinciduntolum\_10, Tissue\_54, Toast\_74, Togo\_62, TomBrady\_51, Tres\_9, Twister6\_65, Twonlo\_60, Tycho\_65, Tydolla\_8, Typha\_83, Ubuntu\_74, UmaThurman\_76, Utz\_66, Valary\_64, ValentiniPuff\_108, VanDeWege\_65, Verity\_65, ViaConlectus\_65, Vic9\_10, Viceroy\_52, Vincenzo\_8, VioletZ\_7, Vivi2\_73, Waleliano\_7, Walrus\_73, Warren\_37, Wayne3\_55, Webster2\_74, Weirdo19\_69, Wendigo\_49, West99\_9, Whack\_67, Wheelie\_53, Wilca\_61, William\_77, Wishmaker\_67, Wisp\_73, Wizard\_61, Wocket\_74, Wooper\_8, Xincheng\_7, Xkcd426\_61, YDN12\_59, Yago84\_5, Yahalom\_8, Yinz\_8, YorkOnyx\_68, YungMoney\_63, Zagie\_54, Zarbodnamra\_79, Zemanar\_8, Zhafia\_56, ZiggyZoo\_76, Zipp\_67, Zitch\_68, ZoMa\_49, Zombie\_50, pZL12\_4c, phiAsp2\_46,

### Summary by start number:

#### Start 107:

- Found in 1 of 801 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustASigh\_69 (AH),

#### Start 110:

- Found in 1 of 801 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Weirdo19\_69 (AH),

#### Start 132:

- Found in 35 of 801 ( 4.4% ) of genes in pham
- Manual Annotations of this start: 2 of 708
- Called 5.7% of time when present
- Phage (with cluster) where this start called: Arbiter\_9 (B2), Qyrzula\_9 (B2),

#### Start 139:

- Found in 37 of 801 ( 4.6% ) of genes in pham
- Manual Annotations of this start: 11 of 708
- Called 29.7% of time when present



- Phage (with cluster) where this start called: Barsten\_69 (DE1), Daegal\_76 (Q), Dewey\_67 (Q), Forge\_67 (Q), Giles\_67 (Q), Gravaillia\_68 (Q), Hadrien\_71 (Q), Hail\_67 (Q), Luke\_71 (Q), Luna22\_67 (Q), Wishmaker\_67 (Q),

#### Start 154:

- Found in 17 of 801 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 4 of 708
- Called 23.5% of time when present
- Phage (with cluster) where this start called: Briakila\_8 (B3), Daisy\_8 (B3), OrangeOswald\_8 (B3), Tydolla\_8 (B3),

#### Start 156:

- Found in 30 of 801 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 7 of 708
- Called 23.3% of time when present
- Phage (with cluster) where this start called: Athena\_9 (B3), Jackstina\_7 (B3), Philly\_7 (B3), Phlyer\_8 (B3), Pipefish\_8 (B3), RomaT\_8 (B3), Yahalom\_8 (B3),

#### Start 163:

- Found in 43 of 801 ( 5.4% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 2.3% of time when present
- Phage (with cluster) where this start called: Rinkes\_11 (B9),

#### Start 165:

- Found in 15 of 801 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Geodirt\_67 (DE1),

#### Start 170:

- Found in 24 of 801 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 4 of 708
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Fortunato\_7 (B4), Frederick\_7 (B4), Mithril\_7 (B4), Zemanar\_8 (B4),

#### Start 173:

- Found in 1 of 801 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: pZL12\_4c (singleton),

#### Start 176:

- Found in 2 of 801 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch\_5 (singleton), TPA2\_15 (singleton),

#### Start 177:

- Found in 15 of 801 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 3 of 708

- Called 20.0% of time when present
- Phage (with cluster) where this start called: Bibwit\_67 (DE1), Lennon\_68 (DE1), Sitar\_68 (DE1),

#### Start 181:

- Found in 5 of 801 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 2 of 708
- Called 40.0% of time when present
- Phage (with cluster) where this start called: BirdsNest\_10 (B13), Indlovu\_7 (B11),

#### Start 186:

- Found in 1 of 801 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAugustine\_13 (singleton),

#### Start 187:

- Found in 4 of 801 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Hashim76\_11 (B13),

#### Start 188:

- Found in 28 of 801 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 3 of 708
- Called 25.0% of time when present
- Phage (with cluster) where this start called: ChrisnMich\_6 (B4), GinPorsche\_6 (B4), Knocker\_12 (B9), Lolalove\_7 (B4), Nanao\_6 (B4), Poster\_6 (B4), QueenPie\_7 (B4),

#### Start 189:

- Found in 4 of 801 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 4 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_181 (DO), Pupper\_178 (DO), SCentae\_177 (DO), Skog\_10 (DO),

#### Start 190:

- Found in 284 of 801 ( 35.5% ) of genes in pham
- Manual Annotations of this start: 256 of 708
- Called 93.7% of time when present
- Phage (with cluster) where this start called: ABU\_6 (B1), AbsoluteMadLad\_6 (B1), Adriana\_6 (B1), Aelin\_6 (B1), AltPhacts\_6 (B1), Altwerkus\_6 (B1), Anderson\_6 (B1), Antonia\_6 (B1), Apizium\_6 (B1), Badfish\_6 (B1), Banjo\_6 (B1), Basato\_7 (B1), BatteryCK\_6 (B1), Beaglebox\_6 (B1), Bishoperium\_6 (B1), BlackStallion\_6 (B1), BlueHusk\_6 (B1), Bluephacebaby\_6 (B1), Boehler\_6 (B1), Brilliant\_6 (B1), Buckeye\_6 (B1), Burr\_6 (B1), CRB2\_9 (B9), CamL\_6 (B1), CampRoach\_6 (B1), Cannibal\_6 (B1), Carthage\_6 (B1), Chaelin\_6 (B1), Chah\_6 (B1), CharlieGBrown\_6 (B1), CheetO\_6 (B1), Cher\_6 (B1), Childish\_6 (B1), Chorkpop\_6 (B1), Chunky\_6 (B1), Chute\_6 (B1), Cobra\_6 (B1), Colbert\_6 (B1), Coletti\_6 (B1), Cornobble\_6 (B1), Cosmolli16\_6 (B1), Craff\_6 (B1), Crownjwl\_7 (B1), DaddyDaniels\_6 (B1), Daffy\_6 (B1), Dati\_6 (B1), DelRivs\_6 (B1), Derpp\_6 (B1), Dice\_6 (B1), Dingo\_6 (B1), Dione\_6 (B1), DirtJuice\_6 (B1), Doddsville\_6 (B1), DoesntMatter\_6 (B1), DonSanchon\_6 (B1), DuchessDung\_6 (B1), Duggie\_6 (B1), Durga\_6 (B1), Emiris\_6 (B1), EmpTee\_6 (B1),

Eremos\_6 (B1), Eugenia\_6 (B1), Fang\_6 (B1), Fozzie\_6 (B1), Frankicide\_6 (B1), Freya\_6 (B1), FriarPreacher\_6 (B1), Fringe\_6 (B1), FugateOSU\_6 (B1), Gareth\_6 (B1), GeneCoco\_6 (B1), Giraffe\_6 (B1), Gophee\_6 (B1), Grand2040\_6 (B1), Gwilliam\_7 (B1), Gyarad\_006 (B1), HSavage\_6 (B1), Haimas\_6 (B1), Haleema\_6 (B1), Hamish\_6 (B1), Hartsy\_6 (B1), Harvey\_6 (B1), Held\_6 (B1), HenryJackson\_6 (B1), Hertubise\_6 (B1), Hetaeria\_6 (B1), HighStump\_6 (B1), Hocus\_6 (B1), Horchata\_6 (B1), Inchworm\_6 (B1), Inverness\_6 (B1), Iridoclysis\_6 (B1), IsaacEli\_6 (B1), JDog\_6 (B1), JakeO\_6 (B1), JangoPhett\_6 (B1), Jillium\_6 (B1), Jiminy\_6 (B1), Jiraiya\_6 (B1), KLucky39\_6 (B1), Kahve\_6 (B1), Kailash\_6 (B1), Keitherie\_6 (B1), Kikipoo\_6 (B1), Kimbrough\_6 (B1), KingTut\_6 (B1), KingVeVeVe\_6 (B1), KlimbOn\_6 (B1), Kloppinator\_6 (B1), Kwadwo\_6 (B1), Kwksand96\_6 (B1), Labeouficaum\_6 (B1), LasagnaCat\_6 (B1), Lasso\_6 (B1), LeeLot\_6 (B1), Lego3393\_6 (B1), Legolas\_6 (B1), LemonSlice\_6 (B1), Longacauda\_6 (B1), Lopsy\_6 (B1), LostAndPhound\_6 (B1), LuckyMarjie\_6 (B1), Lulumae\_6 (B1), Lulwa\_6 (B1), Lumine\_6 (B1), MRabcd\_6 (B1), Mag7\_6 (B1), Magic8\_6 (B1), Mana\_6 (B1), Manad\_6 (B1), Maru\_6 (B1), Matalotodo\_6 (B1), Mcshane\_6 (B1), Mecca\_6 (B1), Megamind20\_7 (B1), Megatron\_6 (B1), Melc17\_6 (B1), MelsMeow\_6 (B1), Mesh1\_6 (B1), MichaelPhcott\_6 (B1), Mikota\_6 (B1), MiniBoss\_6 (B1), MitKao\_6 (B1), Morgushi\_6 (B1), Morty\_6 (B1), Mosaic\_6 (B1), MrPhizzler\_6 (B1), Mulan\_6 (B1), Murdoc\_6 (B1), Mutante\_6 (B1), Nacho\_006 (B1), Newman\_6 (B1), Nicole21\_6 (B1), Numberten\_6 (B1), Nyala\_6 (B1), OSmaximus\_6 (B1), Olak\_6 (B1), Oline\_6 (B1), OliverWalter\_6 (B1), Omniscient\_6 (B1), Oosterbaan\_6 (B1), Orfeu\_6 (B1), Orion\_6 (B1), Orwigg\_7 (B1), PG1\_6 (B1), Pacifista\_6 (B1), PenguinLover67\_10 (B9), Phamished\_6 (B1), Phareon\_6 (B1), PhatCats2014\_6 (B1), PhatLouie\_6 (B1), PhenghisKhan\_6 (B1), Pherdinand\_6 (B1), Phergie\_6 (B1), Phipps\_6 (B1), Phleuron\_6 (B1), PhrankReynolds\_6 (B1), PhrodoBaggins\_6 (B1), Phunky\_6 (B1), Piglet\_006 (B1), PinheadLarry\_6 (B1), Pinkman\_6 (B1), Pipsqueak\_6 (B1), Placalicious\_6 (B1), Plmatters\_6 (B1), Podrick\_6 (B1), Pops\_6 (B1), Potter\_6 (B1), ProfessorX\_6 (B1), Puhltonio\_6 (B1), QueenBeane\_6 (B1), Quesadilla\_9 (B9), Quisquiliae\_6 (B1), RedMaple\_6 (B1), Ricotta\_6 (B1), Riggan\_6 (B1), Rimu\_6 (B1), Robyn\_6 (B1), Roliet\_6 (B1), Roscoe\_7 (B1), Roy17\_6 (B1), SDcharge11\_6 (B1), Saguaro\_9 (B7), Samaymay\_6 (B1), SassyCat97\_6 (B1), Schadenfreude\_6 (B1), Scoot17C\_6 (B1), Scrick\_6 (B1), Selr12\_6 (B1), Serendipity\_6 (B1), Serpentine\_006 (B1), Sheila\_6 (B1), ShiVal\_6 (B1), Sigman\_6 (B1), SilverBell\_6 (B1), Simielle\_6 (B1), Skippy\_6 (B1), Slatt\_6 (B1), Soile\_6 (B1), Solosis\_6 (B1), Sophia\_6 (B1), Soto\_6 (B1), Spartan300\_6 (B1), Squid\_6 (B1), Squiggle\_6 (B1), Struggle\_6 (B1), Suffolk\_6 (B1), Surely\_6 (B1), Swiphy\_6 (B1), Swish\_6 (B1), TallGrassMM\_6 (B1), Telesworld\_6 (B1), Thonko\_3 (B8), Thora\_6 (B1), ThreeOh3D2\_6 (B1), Timmi\_6 (B1), TomBombadil\_6 (B1), Tomlarah\_6 (B1), Toni\_6 (B1), Tooj\_6 (B1), True\_6 (B1), Trypo\_6 (B1), TyrionL\_6 (B1), UAch1\_6 (B1), UncleHowie\_6 (B1), Usavi\_6 (B1), Vaishali24\_6 (B1), Valjean\_6 (B1), Vaticameos\_6 (B1), Veritas\_6 (B1), Virapocalypse\_6 (B1), Virgeve\_6 (B1), Vista\_6 (B1), Vivaldi\_6 (B1), Vortex\_6 (B1), Wallhey\_6 (B1), Waterdiva\_6 (B1), Weher20\_6 (B1), Windsor\_6 (B1), Xavier\_6 (B1), Yoshand\_6 (B1), YouGoGlencoco\_6 (B1), Zaider\_7 (B1), Zelda\_6 (B1), Zenteno07\_11 (B13), Zonia\_6 (B1),

Start 191:

- Found in 72 of 801 ( 9.0% ) of genes in pham
- Manual Annotations of this start: 52 of 708
- Called 79.2% of time when present
- Phage (with cluster) where this start called: Abinghost\_8 (B3), Akoma\_8 (B3), AnClar\_5 (DR), AnarQue\_8 (DR), Audrey\_8 (B3), Axumite\_6 (DR), Baloo\_8 (B3), Ben11\_7 (B3), Bernardo\_8 (B3), BiggityBass\_5 (DR), BobRoss2024\_5 (DR), CaiB\_8

(DR), Casbah\_7 (B3), ChaChing\_8 (B3), Chandler\_8 (B3), CharlottesWeb\_6 (DR), CloverMinnie\_8 (DR), Coldpizza\_7 (DR), Compostia\_8 (B3), Corofin\_8 (B3), Deenasa\_8 (B3), Devonte\_8 (B3), Evaa\_7 (DR), Fresco\_6 (DR), Gadget\_9 (B3), Gervas\_8 (B3), GlenHope\_9 (B3), Halfpint\_7 (B3), HarveySr\_8 (B3), Heathcliff\_8 (B3), Kamiyu\_8 (B3), Kronus\_7 (B3), LestyG\_8 (B3), Ligma\_6 (DR), LittleMunchkin\_7 (DR), MakoManhole\_8 (DR), Mariokart\_6 (DR), Marley1013\_8 (B3), MmasiCarm\_8 (B3), Mortcellus\_7 (B3), Morty007\_8 (B3), MossRose\_8 (DR), NHagos\_6 (DR), Neos5\_8 (B3), Nozo\_8 (B3), Obutu\_8 (B3), Phayeta\_8 (B3), RagingRooster\_8 (B3), Rita1961\_8 (B3), Shatter\_6 (DR), Sisko\_5 (DR), SlippinJimmy\_8 (B3), Sour\_9 (DR), SynergyX\_8 (B3), Wooper\_8 (DR), Yago84\_5 (DR), Yinz\_8 (B3),

#### Start 192:

- Found in 99 of 801 ( 12.4% ) of genes in pham
- Manual Annotations of this start: 60 of 708
- Called 81.8% of time when present
- Phage (with cluster) where this start called: 39HC\_05 (B6), 40BC\_05 (B6), Acadian\_8 (B5), Ahwei\_6 (B4), AlanGrant\_8 (B4), Allegro\_9 (B2), Antihero\_6 (B4), Apex\_6 (B4), Ares\_9 (B2), Austelle\_7 (B4), Baee\_8 (B5), Bananafish\_9 (B2), Blocker23\_9 (B2), BobbyK\_7 (B4), Boyle\_9 (B2), BrownCNA\_7 (B4), Brownie5\_9 (B2), Calamitous\_9 (B2), Coffee\_9 (B2), DigitDog\_8 (B5), Donny\_8 (B5), Eaglehorse\_9 (B2), EastView9101\_8 (B5), Epah\_6 (B4), Fanaw\_7 (B4), Faze9\_9 (B2), FrenchFry\_9 (B2), Funsized\_11 (B9), Glass\_9 (B2), Godines\_9 (B2), Hally898\_6 (B4), Hangman\_7 (B4), Heath\_7 (B4), Hedgerow\_9 (B2), Holeinone\_9 (B2), Hosp\_03 (B6), Hydro\_7 (B4), Imvubu\_3 (B10), ItsyBitsy1\_9 (B2), JAMaL\_6 (B4), JaguarMi\_7 (B4), Jolie1\_05 (B6), KarasumaRum\_8 (B5), KayaCho\_5 (B6), Kheth\_9 (B2), Lambano\_6 (B4), Lars\_9 (B2), Laurie\_9 (B2), Lephleur\_9 (B2), LilMcDreamy\_8 (B12), LizLemon\_9 (B2), Magpie\_7 (B4), MasterPo\_9 (B2), Mudslide\_7 (B4), Mysterious\_8 (B5), Nangang\_8 (B5), Nehemiah\_7 (B5), Nigel\_5 (B4), Opia\_9 (B2), Phantasmagoria\_9 (B2), Phelemich\_8 (B5), Prince\_7 (B4), RawrgerThat\_7 (B4), Reprobate\_8 (B5), Rhinoforte\_9 (B2), Rich\_8 (B5), Sabella\_9 (B2), Serendipitous\_8 (B5), Shenyu\_8 (B5), SirJeffery\_8 (B5), Stinger\_5 (B4), StinkyVeggy\_8 (B5), Suigeneris\_8 (B5), Tinciduntolum\_10 (B2), Tres\_9 (B2), Vic9\_10 (B2), Vincenzo\_8 (B4), VioletZ\_7 (B4), Waleliano\_7 (B4), West99\_9 (B2), Xincheng\_7 (B4),

#### Start 193:

- Found in 1 of 801 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E3\_gp158 (singleton),

#### Start 194:

- Found in 2 of 801 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 2 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ViaConlectus\_65 (DE4), Zitch\_68 (DE4),

#### Start 195:

- Found in 72 of 801 ( 9.0% ) of genes in pham
- Manual Annotations of this start: 56 of 708
- Called 93.1% of time when present
- Phage (with cluster) where this start called: APunk\_66 (DE4), Abblin\_66 (DE4), Affeca\_69 (DE1), Ailee\_66 (DE1), Ali17\_61 (DE2), Angelicage\_67 (DE1), Baddon\_65

(DE1), Baumdotcom\_65 (DE1), Bizzy\_67 (DE1), BobBob\_69 (DE1), Brandonk123\_73 (DE1), ChadMasterC\_68 (DE1), Charming\_72 (DE1), Chickadee\_62 (DE3), Delrey21\_65 (DE4), Derg\_64 (DE1), Dexpert\_63 (DE3), DoctorFroggo\_65 (DE4), EdmundFerry\_59 (DE3), Fitzgerald\_67 (DE1), Flatwoods\_67 (DE1), Fosterous\_71 (DE1), GTE6\_62 (DE3), Galadriel\_68 (DE1), Gustavo\_68 (DE1), Hans\_66 (DE2), Inspectinfecti\_65 (DE2), JKSyngboy\_65 (DE1), Jabberwocky\_67 (DE1), Kamashten\_67 (DE1), Keitabear\_67 (DE1), Kewpiedoll\_67 (DE1), Kroos\_66 (DE1), Kwekel\_62 (DE3), Kwobi\_69 (DE1), Leonard\_64 (DE2), Love\_73 (DE1), McKinley\_69 (DE1), MoontowerMania\_68 (DE1), Natkenzie\_66 (DE4), Nordenberg\_67 (DE1), Paries\_70 (DE1), Phauci\_56 (DE2), Phinally\_64 (DE2), Ribeye\_67 (DE1), RiverRaider\_69 (DE1), RoadKill\_59 (DE3), Rofo\_69 (DE1), Sampson\_68 (DE4), Sanjuju\_67 (DE1), Saronaya\_68 (DE1), Scioto\_66 (DE4), Sedona\_67 (DE1), Shivanishola\_68 (DE1), StorminNorm\_67 (DE1), Stultus\_64 (DE1), Tangent\_71 (DE1), Tangerine\_67 (DE1), Tardus\_66 (DE4), Thing3\_67 (DE1), Tiamoceli\_62 (DE3), Twonlo\_60 (DE3), Tycho\_65 (DE1), Verity\_65 (DE4), Vivi2\_73 (DE1), YorkOnyx\_68 (DE1), Zipp\_67 (DE4),

#### Start 196:

- Found in 3 of 801 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Lilbeanie\_66 (DE5),

#### Start 197:

- Found in 7 of 801 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 5 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ashertheman\_67 (DE1), Belphegor\_62 (DE), EMoore\_63 (DE2), Gaea\_67 (DE1), LilHam\_61 (DE1), MelBins\_67 (DE2), SchottB\_64 (DE1),

#### Start 198:

- Found in 4 of 801 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 4 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rabbs\_53 (G1), Sneeze\_52 (G1), Taheera\_49 (G1), Terror\_49 (G1),

#### Start 202:

- Found in 5 of 801 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 4 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FrankDeliGuy\_51 (EG), Namago\_54 (EG), SallyK\_55 (EG), StrawberryJamm\_57 (EG), Zagie\_54 (EG),

#### Start 205:

- Found in 6 of 801 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Pipp\_79 (CV), Stargaze\_52 (G5),

#### Start 207:

- Found in 2 of 801 ( 0.2% ) of genes in pham

- Manual Annotations of this start: 1 of 708
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Eyre\_59 (singleton),

#### Start 208:

- Found in 25 of 801 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 15 of 708
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Amochick\_75 (Q), Amymech\_74 (Q), BlingBling\_70 (CV), DeepSoil15\_74 (Q), Ein37\_74 (Q), Evanesce\_73 (Q), Gancho\_73 (Q), HH92\_73 (Q), JuJu\_82 (CV), Kinbote\_72 (Q), LilHazelNut\_74 (Q), Lysidious\_76 (CV), OBUpride\_73 (Q), Ubuntu\_74 (Q), Webster2\_74 (Q),

#### Start 210:

- Found in 39 of 801 ( 4.9% ) of genes in pham
- Manual Annotations of this start: 38 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis\_77 (CV), Azula\_80 (CV), Barco\_72 (CV), Begonia\_73 (CV), Blino\_77 (CV), Blueberry\_79 (CV), CaptainKirk2\_75 (CV), CarolAnn\_76 (CV), Delian\_78 (CV), Fairfaxidum\_77 (CV), Ferry\_74 (CV), Frokostdame\_79 (CV), Gambino\_82 (CV), Guacamole\_73 (CV), Hitter\_73 (CV), Jalammah\_78 (CV), JasperJr\_73 (CV), KappaFarmDelta\_74 (CV), Malachai\_73 (CV), Melba\_74 (CV), Mellie\_72 (CV), MintFen\_75 (CV), MissRona\_80 (CV), Murp\_73 (CV), Obliviate\_74 (CV), PCoral7\_74 (CV), Petra\_80 (CV), PhrostedPhlake\_81 (CV), PrincePatrick\_76 (CV), Samba\_75 (CV), Toast\_74 (CV), UmaThurman\_76 (CV), Utz\_66 (CV), Walrus\_73 (CV), William\_77 (CV), Wisp\_73 (CV), Wocket\_74 (CV), Zarbodnamra\_79 (CV), ZiggyZoo\_76 (CV),

#### Start 211:

- Found in 122 of 801 ( 15.2% ) of genes in pham
- Manual Annotations of this start: 35 of 708
- Called 39.3% of time when present
- Phage (with cluster) where this start called: Altheas\_57 (EG), AluminumJesus\_52 (EG), BabyDotz\_53 (EG), BirdInFrench\_61 (EG), Blab\_52 (EG), CandC\_60 (EG), Casend\_54 (EG), DonaldDuck\_53 (EG), EverythinBagel\_53 (EG), Fizzles\_56 (EG), Fransoyer\_57 (EG), Gazebo\_53 (EG), Grassboy\_56 (EG), Hyperion\_53 (EG), JacAttac\_6 (B1), Jehoshaphat\_55 (EG), Judebell\_56 (EG), Kelcole\_59 (EG), Kyva\_56 (EG), Lemuria\_53 (G4), Lemily\_53 (EG), Lonelysoil\_52 (EG), Marcie\_66 (EG), Mashley\_52 (EG), MorillMayhem\_54 (EG), Nike\_54 (EG), Olive\_6 (B1), OneinaGillian\_61 (EG), Pepe25\_60 (EG), Phabia\_53 (EG), Quammi\_51 (EG), RobinRose\_63 (EG), Romm\_63 (EG), Rowlf\_50 (EG), RubyRalph\_59 (EG), Rudy\_51 (EG), SadLad\_60 (EG), Sillytadpoles\_54 (EG), Squash\_56 (EG), Statler\_57 (EG), Teehee\_54 (EG), Tempo\_61 (EG), Tissue\_54 (EG), Viceroy\_52 (EG), Wayne3\_55 (EG), Wheelie\_53 (EG), Wilca\_61 (EG), Zhafia\_56 (EG),

#### Start 212:

- Found in 13 of 801 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 10 of 708
- Called 84.6% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2\_59 (BG), Asis\_60 (BG), BabyGotBac\_61 (BG), BayC\_60 (BG), Maih\_59 (BG), Mischief19\_67 (BG), RainyPolka\_58 (BG), Salete\_60 (BG), TP1604\_60 (BG), Xkcd426\_61 (BG), YDN12\_59 (BG),

Start 217:

- Found in 2 of 801 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Phinky\_62 (EG),

Start 218:

- Found in 3 of 801 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC\_71 (Z), Pine5\_08 (singleton), Rem711\_70 (Z),

Start 220:

- Found in 284 of 801 ( 35.5% ) of genes in pham
- Manual Annotations of this start: 3 of 708
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Daka\_6 (B1), FluffyNinja\_6 (B1), Prickles\_6 (B1),

Start 221:

- Found in 9 of 801 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 9 of 708
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antuna\_38 (GA), Appa\_37 (GA), Blett\_37 (GA), Bush\_38 (GA), Dropshot\_37 (GA), MenE\_38 (GA), Phonegingi\_37 (GA), Pickles13\_36 (GA), Warren\_37 (GA),

Start 227:

- Found in 174 of 801 ( 21.7% ) of genes in pham
- Manual Annotations of this start: 33 of 708
- Called 21.8% of time when present
- Phage (with cluster) where this start called: Andre\_6 (B1), Arri\_64 (DC1), Bakery\_68 (DC1), Barb\_65 (DC1), Charles1\_6 (B1), ClamChowder\_65 (DC1), Clown\_76 (DC2), CoveyB\_64 (DC1), Danyall\_64 (DC1), Evamon\_62 (DC1), Fireball\_66 (DC1), Fugax\_66 (DC1), Gezellig\_64 (DC1), Halo3\_62 (DC1), Jambalaya\_62 (DC1), Katniss\_6 (B1), KimmyK\_64 (DC1), LeiMonet\_6 (B1), Mutzi\_62 (DC1), Nubi\_63 (DC1), Phlop\_61 (DC1), PinkCoffee\_65 (DC1), Portcullis\_65 (DC1), PullumCavea\_62 (DC1), RogerDodger\_66 (DC1), Salvador\_62 (DC1), Savbucketdawg\_62 (DC1), Schueller\_6 (B1), Shinji\_62 (DC1), SmokingBunny\_63 (DC1), Thunderbird\_6 (B1), TillyBobJoe\_63 (DC1), Togo\_62 (DC1), Twister6\_65 (DC1), Valary\_64 (DC1), VanDeWege\_65 (DC1), Wizard\_61 (DC1), YungMoney\_63 (DC1),

Start 228:

- Found in 115 of 801 ( 14.4% ) of genes in pham
- Manual Annotations of this start: 68 of 708
- Called 65.2% of time when present
- Phage (with cluster) where this start called: Angel\_51 (G1), Annihilator\_51 (G1), Antsirabe\_51 (G5), Aroostook\_51 (G1), AuntGwenStacy\_83 (Y), Avocado\_52 (G2), Avrafan\_51 (G1), AzulaCat\_49 (G1), BPs\_51 (G1), BQuat\_51 (G1), Barkley26\_50 (G1), Bipper\_88 (Y), BruceB\_51 (G1), CLÉD96\_51 (G1), Cambiare\_51 (G2), Camri\_51 (G1), CassieYates\_51 (G1), Cedasite\_51 (G1), Chance64\_51 (G1),

Cherrybomb426\_51 (G1), Coleslaw\_51 (G1), Cracklewink\_89 (Y), Crespo\_50 (G1), DMoney\_50 (G1), DNAIII\_0049 (G1), Darionha\_51 (G1), ECartman\_49 (G1), FlagStaff\_49 (G2), Frosty24\_51 (G1), Gideon\_52 (G1), GoldenAsh\_50 (G1), Gomashi\_50 (G1), Grizzly\_51 (G1), Halo\_51 (G1), Hilltopfarm\_84 (Y), Hope\_51 (G1), Hotshotbaby7\_51 (G1), Jane\_51 (G1), Jolene\_51 (G1), Jolie2\_51 (G4), Jonghyun\_49 (G1), JorRay\_51 (G1), Kaleb\_9 (B2), Kareem\_51 (G1), Kasen3\_51 (G1), Liefie\_50 (G1), LouisV14\_53 (G1), MOOREtheMARYer\_53 (G3), Maliketh\_49 (G1), Marmie\_51 (G1), Mercurio\_53 (G4), Mowgli\_51 (G1), OctaviousRex\_50 (G1), Olga\_51 (G1), Pace1224\_50 (G2), Paito\_53 (G1), Peeb\_50 (G1), Periodt\_51 (G1), Phish\_50 (G1), Phreak\_51 (G1), PinkYoshi\_51 (G1), Pinnie\_50 (G3), Plagueis\_51 (G1), Remy19\_51 (G1), Renaissance\_51 (G1), Schiebel\_51 (G1), ShaboiShabazz\_50 (G1), Sizemore\_51 (G1), Sweets\_50 (G1), TomBrady\_51 (G1), Typha\_83 (Y), ValentiniPuff\_108 (singleton), Wendigo\_49 (G1), ZoMa\_49 (G1), Zombie\_50 (G1),

#### Start 233:

- Found in 28 of 801 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 2 of 708
- Called 10.7% of time when present
- Phage (with cluster) where this start called: Sleepyhead\_61 (singleton), TA17A\_9 (B2), Whack\_67 (singleton),

#### Start 240:

- Found in 26 of 801 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 3.8% of time when present
- Phage (with cluster) where this start called: Rosebush\_9 (B2),

#### Start 250:

- Found in 9 of 801 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Cooper\_7 (B4),

#### Start 252:

- Found in 55 of 801 ( 6.9% ) of genes in pham
- Manual Annotations of this start: 1 of 708
- Called 1.8% of time when present
- Phage (with cluster) where this start called: Phaedrus\_7 (B3),

#### Start 254:

- Found in 21 of 801 ( 2.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Sunfish\_70 (singleton),

#### Start 259:

- Found in 5 of 801 ( 0.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: phiAsp2\_46 (singleton),

#### Start 280:

- Found in 411 of 801 ( 51.3% ) of genes in pham



- Manual Annotations of this start: 4 of 708
- Called 1.0% of time when present
- Phage (with cluster) where this start called: Ashraf\_6 (B1), Etaye\_6 (B1), IntiyazSitla\_6 (B1), Maskar\_6 (B1),

### **Summary by clusters:**

There are 37 clusters represented in this pham: DO, singleton, BG, DE, B12, B13, B10, B11, DR, G5, G4, G3, G2, G1, AH, EG, Q, GA, Y, Z, DC2, CV, DC1, DE1, DE2, DE3, DE4, DE5, B4, B5, B6, B7, B1, B2, B3, B8, B9,

Info for manual annotations of cluster AH:

- Start number 107 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster B1:

- Start number 190 was manually annotated 250 times for cluster B1.
- Start number 211 was manually annotated 2 times for cluster B1.
- Start number 220 was manually annotated 3 times for cluster B1.
- Start number 227 was manually annotated 4 times for cluster B1.
- Start number 280 was manually annotated 4 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 192 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 181 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 192 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 181 was manually annotated 1 time for cluster B13.
- Start number 190 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B2:

- Start number 132 was manually annotated 2 times for cluster B2.
- Start number 192 was manually annotated 29 times for cluster B2.
- Start number 240 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster B3:

- Start number 154 was manually annotated 4 times for cluster B3.
- Start number 156 was manually annotated 7 times for cluster B3.
- Start number 191 was manually annotated 33 times for cluster B3.
- Start number 252 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B4:

- Start number 170 was manually annotated 4 times for cluster B4.
- Start number 188 was manually annotated 2 times for cluster B4.
- Start number 192 was manually annotated 18 times for cluster B4.
- Start number 250 was manually annotated 1 time for cluster B4.

Info for manual annotations of cluster B5:

- Start number 192 was manually annotated 9 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 192 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 190 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 190 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 163 was manually annotated 1 time for cluster B9.
- Start number 188 was manually annotated 1 time for cluster B9.
- Start number 190 was manually annotated 3 times for cluster B9.
- Start number 192 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster BG:

- Start number 212 was manually annotated 10 times for cluster BG.

Info for manual annotations of cluster CV:

- Start number 205 was manually annotated 1 time for cluster CV.
- Start number 208 was manually annotated 3 times for cluster CV.
- Start number 210 was manually annotated 38 times for cluster CV.

Info for manual annotations of cluster DC1:

- Start number 227 was manually annotated 28 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 227 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 139 was manually annotated 1 time for cluster DE1.
- Start number 165 was manually annotated 1 time for cluster DE1.
- Start number 177 was manually annotated 3 times for cluster DE1.
- Start number 195 was manually annotated 36 times for cluster DE1.
- Start number 197 was manually annotated 3 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 195 was manually annotated 6 times for cluster DE2.
- Start number 197 was manually annotated 2 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 195 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 194 was manually annotated 2 times for cluster DE4.
- Start number 195 was manually annotated 7 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 196 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DO:

- Start number 189 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DR:

- Start number 191 was manually annotated 19 times for cluster DR.

Info for manual annotations of cluster EG:

- Start number 202 was manually annotated 4 times for cluster EG.
- Start number 211 was manually annotated 32 times for cluster EG.
- Start number 217 was manually annotated 1 time for cluster EG.

Info for manual annotations of cluster G1:

- Start number 198 was manually annotated 4 times for cluster G1.
- Start number 228 was manually annotated 56 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 228 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 228 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 211 was manually annotated 1 time for cluster G4.
- Start number 228 was manually annotated 1 time for cluster G4.

Info for manual annotations of cluster G5:

- Start number 228 was manually annotated 1 time for cluster G5.

Info for manual annotations of cluster GA:

- Start number 221 was manually annotated 9 times for cluster GA.

Info for manual annotations of cluster Q:

- Start number 139 was manually annotated 10 times for cluster Q.
- Start number 208 was manually annotated 12 times for cluster Q.

Info for manual annotations of cluster Y:

- Start number 228 was manually annotated 4 times for cluster Y.

Info for manual annotations of cluster Z:

- Start number 218 was manually annotated 1 time for cluster Z.

### **Gene Information:**

Gene: 32HC\_71 Start: 43501, Stop: 44121, Start Num: 218

Candidate Starts for 32HC\_71:

(Start: 218 @43501 has 1 MA's), (223, 43510), (225, 43513), (242, 43552), (265, 43591), (284, 43657), (293, 43675), (321, 43726), (378, 43900), (410, 43969), (415, 43978),

Gene: 39HC\_05 Start: 4719, Stop: 4141, Start Num: 192

Candidate Starts for 39HC\_05:

(Start: 192 @4719 has 60 MA's), (262, 4596), (269, 4587), (Start: 280 @4545 has 4 MA's), (300, 4503), (319, 4470), (337, 4428), (343, 4404), (352, 4377), (356, 4365), (357, 4362), (378, 4290), (394,

4263), (403, 4236), (410, 4221), (412, 4218), (432, 4185), (443, 4161),

Gene: 40BC\_05 Start: 4719, Stop: 4141, Start Num: 192

Candidate Starts for 40BC\_05:

(Start: 192 @4719 has 60 MA's), (262, 4596), (269, 4587), (Start: 280 @4545 has 4 MA's), (300, 4503), (319, 4470), (337, 4428), (343, 4404), (352, 4377), (356, 4365), (357, 4362), (378, 4290), (394, 4263), (403, 4236), (410, 4221), (412, 4218), (432, 4185), (443, 4161),

Gene: ABU\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for ABU\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: APunk\_66 Start: 49707, Stop: 50354, Start Num: 195

Candidate Starts for APunk\_66:

(Start: 170 @49656 has 4 MA's), (Start: 195 @49707 has 56 MA's), (237, 49785), (256, 49827), (258, 49833), (289, 49899), (336, 50001), (339, 50016), (360, 50076), (362, 50085), (382, 50151), (384, 50160), (417, 50238), (434, 50265), (460, 50343),

Gene: Abblin\_66 Start: 50003, Stop: 50650, Start Num: 195

Candidate Starts for Abblin\_66:

(115, 49841), (119, 49847), (122, 49865), (Start: 170 @49952 has 4 MA's), (Start: 195 @50003 has 56 MA's), (237, 50081), (256, 50123), (258, 50129), (289, 50195), (303, 50213), (336, 50297), (339, 50312), (360, 50372), (362, 50381), (382, 50447), (384, 50456), (417, 50534), (434, 50561), (460, 50639),

Gene: Abinghost\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for Abinghost\_8:

(Start: 154 @5489 has 4 MA's), (Start: 163 @5471 has 1 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: AbsoluteMadLad\_6 Start: 3914, Stop: 3360, Start Num: 190

Candidate Starts for AbsoluteMadLad\_6:

(Start: 190 @3914 has 256 MA's), (Start: 211 @3884 has 35 MA's), (Start: 220 @3869 has 3 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438, 3398),

Gene: Abt2graduatex2\_59 Start: 48650, Stop: 49240, Start Num: 212

Candidate Starts for Abt2graduatex2\_59:

(Start: 212 @48650 has 10 MA's), (254, 48701), (267, 48725), (278, 48752), (285, 48776), (302, 48809), (317, 48836), (318, 48839), (328, 48869), (342, 48908), (347, 48923), (356, 48950), (357, 48953), (383, 49043), (392, 49064), (410, 49112), (427, 49142), (444, 49178),

Gene: Acadian\_8 Start: 6215, Stop: 5649, Start Num: 192

Candidate Starts for Acadian\_8:

(Start: 192 @6215 has 60 MA's), (230, 6158), (Start: 280 @6056 has 4 MA's), (319, 5978), (337, 5936), (343, 5912), (352, 5885), (356, 5873), (378, 5798), (394, 5771), (428, 5699), (432, 5693),

Gene: Adriana\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Adriana\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Aelin\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Aelin\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Affeca\_69 Start: 51998, Stop: 52636, Start Num: 195

Candidate Starts for Affeca\_69:

(Start: 195 @51998 has 56 MA's), (276, 52148), (320, 52238), (336, 52277), (339, 52292), (355, 52340), (357, 52346), (374, 52406), (384, 52439), (415, 52520), (442, 52577),

Gene: Ahwei\_6 Start: 5143, Stop: 4583, Start Num: 192

Candidate Starts for Ahwei\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Ailee\_66 Start: 51033, Stop: 51671, Start Num: 195

Candidate Starts for Ailee\_66:

(92, 50802), (99, 50826), (Start: 139 @50931 has 11 MA's), (Start: 165 @50979 has 1 MA's), (Start: 177 @51000 has 3 MA's), (Start: 195 @51033 has 56 MA's), (276, 51183), (320, 51273), (336, 51312), (339, 51327), (355, 51375), (357, 51381), (384, 51474), (415, 51555), (442, 51612),

Gene: Akoma\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for Akoma\_8:

(Start: 154 @5489 has 4 MA's), (Start: 163 @5471 has 1 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: AlanGrant\_8 Start: 6947, Stop: 6363, Start Num: 192

Candidate Starts for AlanGrant\_8:

(Start: 192 @6947 has 60 MA's), (Start: 250 @6842 has 1 MA's), (Start: 280 @6773 has 4 MA's), (319, 6695), (337, 6653), (339, 6641), (343, 6629), (352, 6602), (357, 6587), (374, 6527), (384, 6494), (406, 6452), (417, 6428),

Gene: Ali17\_61 Start: 48704, Stop: 49351, Start Num: 195

Candidate Starts for Ali17\_61:

(Start: 195 @48704 has 56 MA's), (237, 48782), (258, 48830), (269, 48845), (283, 48902), (289, 48914), (299, 48932), (317, 48974), (336, 49025), (356, 49091), (357, 49094), (379, 49160), (382, 49166), (410, 49238), (434, 49280), (442, 49301),

Gene: Allegro\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Allegro\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: AltPhacts\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for AltPhacts\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514),

Gene: Altheas\_57 Start: 42348, Stop: 41770, Start Num: 211

Candidate Starts for Altheas\_57:

(Start: 211 @42348 has 35 MA's), (270, 42237), (348, 42027), (362, 41982), (364, 41976), (374, 41937), (379, 41922), (404, 41868), (443, 41793),

Gene: Altwerkus\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Altwerkus\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: AluminumJesus\_52 Start: 41548, Stop: 40976, Start Num: 211

Candidate Starts for AluminumJesus\_52:

(Start: 211 @41548 has 35 MA's), (242, 41482), (302, 41344), (309, 41335), (317, 41317), (354, 41209), (359, 41194), (362, 41185), (374, 41140), (378, 41128), (414, 41053), (431, 41023), (443, 40999),

Gene: Amochick\_75 Start: 48792, Stop: 49403, Start Num: 208

Candidate Starts for Amochick\_75:

(60, 48474), (Start: 139 @48711 has 11 MA's), (143, 48720), (167, 48762), (Start: 208 @48792 has 15 MA's), (249, 48873), (283, 48957), (296, 48981), (301, 48990), (318, 49020), (330, 49053), (352, 49119), (364, 49155), (379, 49209), (386, 49233), (388, 49236), (393, 49251), (403, 49278), (410, 49293), (415, 49302), (425, 49320), (436, 49335),

Gene: Amymech\_74 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for Amymech\_74:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: AnClar\_5 Start: 5209, Stop: 4682, Start Num: 191

Candidate Starts for AnClar\_5:

(Start: 191 @5209 has 52 MA's), (253, 5134), (347, 4939), (348, 4936), (354, 4915), (362, 4891), (364, 4885), (374, 4846), (379, 4831), (384, 4813), (404, 4777), (410, 4765), (443, 4702),

Gene: AnarQue\_8 Start: 6372, Stop: 5821, Start Num: 191

Candidate Starts for AnarQue\_8:

(152, 6432), (160, 6417), (162, 6411), (Start: 191 @6372 has 52 MA's), (Start: 220 @6327 has 3 MA's), (224, 6321), (Start: 280 @6234 has 4 MA's), (287, 6216), (317, 6165), (318, 6162), (319, 6159), (354, 6060), (378, 5979), (410, 5907), (446, 5832),

Gene: Anderson\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Anderson\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Andre\_6 Start: 3865, Stop: 3365, Start Num: 227

Candidate Starts for Andre\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Angel\_51 Start: 36899, Stop: 37489, Start Num: 228

Candidate Starts for Angel\_51:

(4, 36227), (5, 36230), (47, 36521), (68, 36650), (91, 36722), (149, 36845), (200, 36866), (203, 36872), (Start: 228 @36899 has 68 MA's), (248, 36947), (288, 37043), (302, 37070), (316, 37091), (318, 37097), (325, 37121), (356, 37208), (366, 37238), (374, 37271), (377, 37280), (391, 37319), (398, 37358), (410, 37385), (445, 37454),

Gene: Angelicage\_67 Start: 51950, Stop: 52588, Start Num: 195

Candidate Starts for Angelicage\_67:

(Start: 195 @51950 has 56 MA's), (276, 52100), (320, 52190), (336, 52229), (339, 52244), (355, 52292), (357, 52298), (374, 52358), (384, 52391), (415, 52472), (442, 52529),

Gene: Annihilator\_51 Start: 36905, Stop: 37495, Start Num: 228

Candidate Starts for Annihilator\_51:

(4, 36233), (5, 36236), (47, 36527), (68, 36656), (91, 36728), (149, 36851), (200, 36872), (203, 36878), (Start: 228 @36905 has 68 MA's), (248, 36953), (288, 37049), (302, 37076), (316, 37097), (318, 37103), (325, 37127), (356, 37214), (366, 37244), (374, 37277), (377, 37286), (391, 37325), (398, 37364), (410, 37391), (445, 37460),

Gene: Antihero\_6 Start: 5143, Stop: 4583, Start Num: 192

Candidate Starts for Antihero\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Antonia\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Antonia\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Antsirabe\_51 Start: 38179, Stop: 38778, Start Num: 228

Candidate Starts for Antsirabe\_51:

(201, 38131), (Start: 205 @38140 has 1 MA's), (Start: 228 @38179 has 68 MA's), (238, 38206), (248, 38227), (292, 38332), (302, 38350), (317, 38374), (318, 38377), (366, 38518), (374, 38551), (375, 38554), (377, 38560), (398, 38635), (410, 38662), (456, 38764),

Gene: Antuna\_38 Start: 22691, Stop: 23254, Start Num: 221

Candidate Starts for Antuna\_38:

(Start: 221 @22691 has 9 MA's), (Start: 228 @22703 has 68 MA's), (236, 22721), (271, 22784), (Start: 280 @22826 has 4 MA's), (294, 22862), (296, 22865), (322, 22916), (328, 22931), (333, 22943), (343, 22976), (346, 22982), (372, 23072), (374, 23078), (378, 23090), (404, 23144),

Gene: Apex\_6 Start: 5787, Stop: 5203, Start Num: 192

Candidate Starts for Apex\_6:

(Start: 163 @5847 has 1 MA's), (Start: 170 @5838 has 4 MA's), (Start: 188 @5796 has 3 MA's), (Start: 192 @5787 has 60 MA's), (Start: 250 @5682 has 1 MA's), (Start: 252 @5679 has 1 MA's), (269, 5655), (Start: 280 @5613 has 4 MA's), (283, 5601), (317, 5538), (337, 5490), (357, 5424), (374, 5364),

(394, 5325), (403, 5298), (406, 5292), (410, 5283), (412, 5280), (432, 5247), (442, 5226),

Gene: Apizium\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Apizium\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Appa\_37 Start: 22568, Stop: 23131, Start Num: 221

Candidate Starts for Appa\_37:

(Start: 221 @22568 has 9 MA's), (Start: 228 @22580 has 68 MA's), (236, 22598), (271, 22661), (Start: 280 @22703 has 4 MA's), (294, 22739), (296, 22742), (322, 22793), (328, 22808), (333, 22820), (343, 22853), (346, 22859), (372, 22949), (374, 22955), (378, 22967), (404, 23021),

Gene: Arbiter\_9 Start: 6447, Stop: 7139, Start Num: 132

Candidate Starts for Arbiter\_9:

(123, 6429), (Start: 132 @6447 has 2 MA's), (144, 6468), (145, 6471), (Start: 192 @6564 has 60 MA's), (Start: 228 @6621 has 68 MA's), (Start: 233 @6633 has 2 MA's), (Start: 240 @6651 has 1 MA's), (283, 6744), (288, 6753), (319, 6807), (334, 6843), (335, 6846), (337, 6849), (348, 6885), (359, 6921), (362, 6930), (374, 6975), (375, 6978), (378, 6987), (406, 7047), (409, 7053), (410, 7056), (432, 7092), (443, 7116), (446, 7125),

Gene: Archis\_77 Start: 45860, Stop: 46450, Start Num: 210

Candidate Starts for Archis\_77:

(Start: 210 @45860 has 38 MA's), (321, 46082), (325, 46094), (328, 46100), (344, 46145), (351, 46163), (356, 46181), (357, 46184), (368, 46223), (369, 46226), (410, 46352),

Gene: Ares\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Ares\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: Aroostook\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Aroostook\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Arri\_64 Start: 47218, Stop: 47817, Start Num: 227

Candidate Starts for Arri\_64:

(Start: 227 @47218 has 33 MA's), (357, 47533), (362, 47548), (374, 47593), (394, 47650), (404, 47683), (408, 47692), (425, 47722), (434, 47734), (447, 47770), (456, 47800),

Gene: Ashertheman\_67 Start: 50107, Stop: 50742, Start Num: 197

Candidate Starts for Ashertheman\_67:

(155, 50029), (Start: 197 @50107 has 5 MA's), (320, 50344), (336, 50383), (339, 50398), (350, 50428), (355, 50446), (421, 50644),

Gene: Ashraf\_6 Start: 3765, Stop: 3361, Start Num: 280

Candidate Starts for Ashraf\_6:



(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's),  
(Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Asis\_60 Start: 48756, Stop: 49346, Start Num: 212

Candidate Starts for Asis\_60:

(127, 48633), (Start: 212 @48756 has 10 MA's), (254, 48807), (267, 48831), (278, 48858), (285,  
48882), (302, 48915), (317, 48942), (318, 48945), (328, 48975), (342, 49014), (347, 49029), (356,  
49056), (357, 49059), (383, 49149), (389, 49164), (392, 49170), (410, 49218), (427, 49248), (444,  
49284),

Gene: Athena\_9 Start: 6248, Stop: 5625, Start Num: 156

Candidate Starts for Athena\_9:

(Start: 156 @6248 has 7 MA's), (Start: 191 @6176 has 52 MA's), (Start: 252 @6095 has 1 MA's),  
(271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384,  
5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Audrey\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for Audrey\_8:

(Start: 154 @5489 has 4 MA's), (Start: 163 @5471 has 1 MA's), (Start: 191 @5414 has 52 MA's),  
(Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222),  
(363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: AuntGwenStacy\_83 Start: 54897, Stop: 55466, Start Num: 228

Candidate Starts for AuntGwenStacy\_83:

(158, 54768), (161, 54771), (178, 54807), (Start: 228 @54897 has 68 MA's), (257, 54963), (294,  
55053), (296, 55056), (317, 55086), (318, 55089), (339, 55146), (347, 55170), (352, 55185), (355,  
55194), (356, 55197), (357, 55200), (361, 55212), (373, 55260), (380, 55281), (399, 55347), (408,  
55368), (427, 55401), (440, 55422), (443, 55434),

Gene: Austelle\_7 Start: 6243, Stop: 5680, Start Num: 192

Candidate Starts for Austelle\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start:  
192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337,  
5967), (339, 5955), (352, 5916), (356, 5904), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412,  
5757), (432, 5724), (442, 5703),

Gene: Avocado\_52 Start: 39158, Stop: 39742, Start Num: 228

Candidate Starts for Avocado\_52:

(69, 38822), (146, 39035), (147, 39038), (Start: 228 @39158 has 68 MA's), (257, 39224), (307,  
39332), (317, 39353), (325, 39380), (342, 39422), (355, 39461), (366, 39494), (374, 39527), (386,  
39563), (398, 39611), (410, 39638), (444, 39704),

Gene: Avrafan\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Avrafan\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203,  
36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106),  
(318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334),  
(398, 37373), (410, 37400), (445, 37469),

Gene: Axumite\_6 Start: 4904, Stop: 4362, Start Num: 191

Candidate Starts for Axumite\_6:

(37, 5378), (67, 5207), (Start: 191 @4904 has 52 MA's), (Start: 227 @4850 has 33 MA's), (264, 4811),  
(317, 4697), (364, 4565), (374, 4526), (378, 4514), (379, 4511), (393, 4487), (403, 4460), (432, 4406),

(443, 4382),

Gene: Azula\_80 Start: 50046, Stop: 50630, Start Num: 210

Candidate Starts for Azula\_80:

(1, 48945), (2, 48966), (6, 49161), (8, 49203), (12, 49221), (26, 49341), (36, 49608), (52, 49704), (Start: 210 @50046 has 38 MA's), (254, 50127), (255, 50130), (285, 50199), (317, 50250), (318, 50253), (319, 50256), (336, 50295), (341, 50316), (368, 50403), (380, 50442), (383, 50454), (388, 50463), (410, 50523), (425, 50550),

Gene: AzulaCat\_49 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for AzulaCat\_49:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: BPs\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for BPs\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: BQuat\_51 Start: 37351, Stop: 37941, Start Num: 228

Candidate Starts for BQuat\_51:

(4, 36679), (5, 36682), (47, 36973), (68, 37102), (91, 37174), (149, 37297), (200, 37318), (203, 37324), (Start: 228 @37351 has 68 MA's), (248, 37399), (288, 37495), (302, 37522), (316, 37543), (318, 37549), (325, 37573), (356, 37660), (366, 37690), (374, 37723), (377, 37732), (391, 37771), (398, 37810), (410, 37837), (445, 37906),

Gene: BabyDotz\_53 Start: 42140, Stop: 41568, Start Num: 211

Candidate Starts for BabyDotz\_53:

(Start: 163 @42227 has 1 MA's), (Start: 211 @42140 has 35 MA's), (242, 42074), (302, 41936), (309, 41927), (317, 41909), (354, 41801), (359, 41786), (362, 41777), (374, 41732), (414, 41645), (431, 41615), (443, 41591),

Gene: BabyGotBac\_61 Start: 48762, Stop: 49352, Start Num: 212

Candidate Starts for BabyGotBac\_61:

(Start: 212 @48762 has 10 MA's), (254, 48813), (267, 48837), (278, 48864), (285, 48888), (302, 48921), (317, 48948), (318, 48951), (328, 48981), (342, 49020), (347, 49035), (356, 49062), (357, 49065), (383, 49155), (389, 49170), (392, 49176), (410, 49224), (427, 49254), (444, 49290),

Gene: Baddon\_65 Start: 50788, Stop: 51423, Start Num: 195

Candidate Starts for Baddon\_65:

(Start: 195 @50788 has 56 MA's), (320, 51025), (336, 51064), (339, 51079), (350, 51109), (352, 51118), (355, 51127), (404, 51286), (421, 51325),

Gene: Badfish\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Badfish\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Bae\_8 Start: 6221, Stop: 5655, Start Num: 192

Candidate Starts for Bae\_8:

(Start: 192 @6221 has 60 MA's), (230, 6164), (Start: 280 @6062 has 4 MA's), (317, 5990), (319, 5984), (321, 5975), (337, 5942), (343, 5918), (356, 5879), (374, 5816), (378, 5804), (394, 5777), (428, 5705), (432, 5699),

Gene: Bakery\_68 Start: 49465, Stop: 50097, Start Num: 227

Candidate Starts for Bakery\_68:

(Start: 227 @49465 has 33 MA's), (352, 49798), (362, 49828), (372, 49867), (381, 49894), (404, 49963), (406, 49966), (408, 49972), (425, 50002), (434, 50014), (447, 50050), (456, 50080),

Gene: Baloo\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for Baloo\_8:

(Start: 154 @5489 has 4 MA's), (Start: 163 @5471 has 1 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Bananafish\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Bananafish\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (135, 6360), (142, 6372), (144, 6378), (Start: 192 @6474 has 60 MA's), (234, 6546), (245, 6573), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: Banjo\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Banjo\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Barb\_65 Start: 47095, Stop: 47694, Start Num: 227

Candidate Starts for Barb\_65:

(Start: 227 @47095 has 33 MA's), (357, 47410), (362, 47425), (374, 47470), (394, 47527), (404, 47560), (408, 47569), (425, 47599), (434, 47611), (456, 47677),

Gene: Barco\_72 Start: 45671, Stop: 46261, Start Num: 210

Candidate Starts for Barco\_72:

(72, 45398), (78, 45419), (Start: 210 @45671 has 38 MA's), (317, 45878), (321, 45893), (325, 45905), (328, 45911), (344, 45956), (357, 45995), (368, 46034), (369, 46037), (410, 46163), (446, 46235),

Gene: Barkley26\_50 Start: 36819, Stop: 37409, Start Num: 228

Candidate Starts for Barkley26\_50:

(16, 36237), (47, 36438), (91, 36639), (149, 36765), (200, 36786), (203, 36792), (Start: 228 @36819 has 68 MA's), (288, 36963), (316, 37011), (318, 37017), (325, 37041), (356, 37128), (366, 37158), (374, 37191), (377, 37200), (391, 37239), (398, 37278), (410, 37305), (445, 37374),

Gene: Barsten\_69 Start: 51643, Stop: 52386, Start Num: 139

Candidate Starts for Barsten\_69:

(55, 51355), (58, 51391), (Start: 139 @51643 has 11 MA's), (Start: 165 @51691 has 1 MA's), (Start: 177 @51712 has 3 MA's), (Start: 195 @51748 has 56 MA's), (239, 51823), (318, 51979), (320, 51988), (336, 52027), (339, 52042), (355, 52090), (384, 52189), (415, 52270), (442, 52327),

Gene: Basato\_7 Start: 4152, Stop: 3598, Start Num: 190

Candidate Starts for Basato\_7:

(Start: 190 @4152 has 256 MA's), (Start: 211 @4122 has 35 MA's), (Start: 220 @4107 has 3 MA's), (Start: 227 @4098 has 33 MA's), (Start: 280 @4002 has 4 MA's), (319, 3927), (334, 3891), (337, 3885), (375, 3756), (378, 3747), (438, 3636),

Gene: BatteryCK\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for BatteryCK\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Baumdotcom\_65 Start: 50065, Stop: 50700, Start Num: 195

Candidate Starts for Baumdotcom\_65:

(Start: 195 @50065 has 56 MA's), (320, 50302), (336, 50341), (339, 50356), (350, 50386), (352, 50395), (355, 50404), (384, 50503), (421, 50602),

Gene: BayC\_60 Start: 48760, Stop: 49350, Start Num: 212

Candidate Starts for BayC\_60:

(127, 48637), (Start: 212 @48760 has 10 MA's), (247, 48799), (254, 48811), (267, 48835), (278, 48862), (285, 48886), (302, 48919), (317, 48946), (318, 48949), (328, 48979), (342, 49018), (347, 49033), (356, 49060), (357, 49063), (383, 49153), (389, 49168), (392, 49174), (410, 49222), (427, 49252), (444, 49288),

Gene: Beaglebox\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Beaglebox\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Begonia\_73 Start: 48471, Stop: 49061, Start Num: 210

Candidate Starts for Begonia\_73:

(72, 48171), (78, 48192), (Start: 210 @48471 has 38 MA's), (321, 48693), (325, 48705), (328, 48711), (344, 48756), (351, 48774), (356, 48792), (357, 48795), (368, 48834), (369, 48837), (410, 48963),

Gene: Belphegor\_62 Start: 49802, Stop: 50470, Start Num: 197

Candidate Starts for Belphegor\_62:

(102, 49589), (112, 49628), (135, 49685), (138, 49691), (140, 49694), (142, 49697), (151, 49715), (166, 49742), (Start: 197 @49802 has 5 MA's), (258, 49928), (269, 49943), (283, 50000), (289, 50012), (317, 50072), (336, 50123), (356, 50189), (357, 50192), (362, 50207), (379, 50258), (382, 50264), (410, 50336), (434, 50378),

Gene: Ben11\_7 Start: 5262, Stop: 4711, Start Num: 191

Candidate Starts for Ben11\_7:

(Start: 154 @5337 has 4 MA's), (Start: 163 @5319 has 1 MA's), (Start: 191 @5262 has 52 MA's), (Start: 252 @5181 has 1 MA's), (271, 5154), (Start: 280 @5115 has 4 MA's), (294, 5082), (304, 5070), (363, 4917), (374, 4875), (384, 4842), (403, 4809), (431, 4758), (443, 4731),

Gene: Bernardo\_8 Start: 5441, Stop: 4863, Start Num: 191

Candidate Starts for Bernardo\_8:

(Start: 156 @5513 has 7 MA's), (Start: 191 @5441 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Bibwit\_67 Start: 50594, Stop: 51265, Start Num: 177

Candidate Starts for Bibwit\_67:

(92, 50396), (99, 50420), (Start: 139 @50525 has 11 MA's), (Start: 165 @50573 has 1 MA's), (Start: 177 @50594 has 3 MA's), (Start: 195 @50627 has 56 MA's), (276, 50777), (320, 50867), (336, 50906), (339, 50921), (355, 50969), (357, 50975), (384, 51068), (415, 51149), (442, 51206),

Gene: BiggityBass\_5 Start: 4713, Stop: 4186, Start Num: 191

Candidate Starts for BiggityBass\_5:

(Start: 191 @4713 has 52 MA's), (Start: 220 @4668 has 3 MA's), (271, 4629), (282, 4587), (343, 4452), (354, 4422), (362, 4398), (364, 4392), (379, 4338), (393, 4314), (403, 4287), (410, 4272),

Gene: Bipper\_88 Start: 56814, Stop: 57383, Start Num: 228

Candidate Starts for Bipper\_88:

(61, 56400), (62, 56403), (70, 56436), (71, 56439), (90, 56514), (102, 56547), (108, 56571), (120, 56610), (158, 56688), (161, 56691), (Start: 228 @56814 has 68 MA's), (294, 56970), (296, 56973), (301, 56982), (317, 57003), (318, 57006), (339, 57063), (347, 57087), (355, 57111), (356, 57114), (357, 57117), (361, 57129), (373, 57177), (380, 57198), (399, 57264), (403, 57273), (427, 57318), (430, 57321), (443, 57351),

Gene: BirdInFrench\_61 Start: 42242, Stop: 41679, Start Num: 211

Candidate Starts for BirdInFrench\_61:

(167, 42308), (172, 42299), (Start: 211 @42242 has 35 MA's), (317, 42020), (374, 41846), (375, 41843), (378, 41834), (410, 41765), (443, 41702),

Gene: BirdsNest\_10 Start: 4668, Stop: 4063, Start Num: 181

Candidate Starts for BirdsNest\_10:

(Start: 181 @4668 has 2 MA's), (187, 4656), (Start: 190 @4647 has 256 MA's), (243, 4554), (259, 4539), (269, 4524), (Start: 280 @4479 has 4 MA's), (319, 4401), (337, 4359), (338, 4356), (374, 4224), (375, 4221), (432, 4107), (439, 4098), (443, 4083),

Gene: Bishoperium\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Bishoperium\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Bizzy\_67 Start: 49985, Stop: 50620, Start Num: 195

Candidate Starts for Bizzy\_67:

(Start: 195 @49985 has 56 MA's), (320, 50222), (336, 50261), (339, 50276), (350, 50306), (352, 50315), (355, 50324), (374, 50390), (384, 50423), (404, 50483), (421, 50522),

Gene: Blab\_52 Start: 41398, Stop: 40823, Start Num: 211

Candidate Starts for Blab\_52:

(Start: 211 @41398 has 35 MA's), (242, 41332), (302, 41191), (309, 41182), (317, 41164), (354, 41056), (359, 41041), (362, 41032), (374, 40987), (378, 40975), (414, 40900), (431, 40870), (443, 40846),

Gene: BlackStallion\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for BlackStallion\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Blett\_37 Start: 22730, Stop: 23311, Start Num: 221

Candidate Starts for Blett\_37:

(Start: 221 @22730 has 9 MA's), (236, 22760), (Start: 280 @22883 has 4 MA's), (290, 22910), (301, 22931), (322, 22973), (328, 22988), (333, 23000), (347, 23042), (372, 23129), (374, 23135), (378, 23147), (404, 23201),

Gene: BlingBling\_70 Start: 45443, Stop: 46036, Start Num: 208

Candidate Starts for BlingBling\_70:

(Start: 208 @45443 has 15 MA's), (321, 45668), (325, 45680), (328, 45686), (344, 45731), (351, 45749), (356, 45767), (357, 45770), (369, 45812), (410, 45938), (446, 46010),

Gene: Blino\_77 Start: 51275, Stop: 51865, Start Num: 210

Candidate Starts for Blino\_77:

(Start: 210 @51275 has 38 MA's), (296, 51452), (321, 51497), (325, 51509), (328, 51515), (344, 51560), (351, 51578), (356, 51596), (357, 51599), (368, 51638), (369, 51641), (410, 51767), (446, 51839),

Gene: Blocker23\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Blocker23\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (135, 6477), (142, 6489), (144, 6495), (Start: 192 @6591 has 60 MA's), (234, 6663), (245, 6690), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: BlueHusk\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for BlueHusk\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Blueberry\_79 Start: 50046, Stop: 50630, Start Num: 210

Candidate Starts for Blueberry\_79:

(1, 48945), (2, 48966), (6, 49161), (8, 49203), (12, 49221), (26, 49341), (36, 49608), (52, 49704), (Start: 210 @50046 has 38 MA's), (254, 50127), (255, 50130), (285, 50199), (317, 50250), (318, 50253), (319, 50256), (336, 50295), (341, 50316), (368, 50403), (380, 50442), (383, 50454), (388, 50463), (410, 50523), (425, 50550),

Gene: Bluephacebaby\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Bluephacebaby\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: BobBob\_69 Start: 51250, Stop: 51888, Start Num: 195

Candidate Starts for BobBob\_69:

(Start: 195 @51250 has 56 MA's), (239, 51325), (276, 51400), (318, 51481), (320, 51490), (336, 51529), (339, 51544), (355, 51592), (374, 51658), (384, 51691), (415, 51772), (442, 51829),

Gene: BobRoss2024\_5 Start: 4729, Stop: 4181, Start Num: 191

Candidate Starts for BobRoss2024\_5:

(Start: 191 @4729 has 52 MA's), (Start: 280 @4591 has 4 MA's), (318, 4522), (319, 4519), (352, 4426), (354, 4420), (355, 4417), (358, 4408), (379, 4336), (410, 4267),

Gene: BobbyK\_7 Start: 6240, Stop: 5677, Start Num: 192

Candidate Starts for BobbyK\_7:

(Start: 163 @6300 has 1 MA's), (Start: 170 @6291 has 4 MA's), (Start: 188 @6249 has 3 MA's), (Start: 192 @6240 has 60 MA's), (Start: 280 @6084 has 4 MA's), (283, 6072), (317, 6012), (334, 5970), (337, 5964), (339, 5952), (352, 5913), (356, 5901), (374, 5838), (384, 5805), (403, 5772), (404, 5769), (410, 5757), (412, 5754), (432, 5721), (442, 5700),

Gene: Boehler\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Boehler\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Boyle\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Boyle\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (135, 6477), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (234, 6663), (245, 6690), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (404, 7071), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Brandonk123\_73 Start: 51642, Stop: 52280, Start Num: 195

Candidate Starts for Brandonk123\_73:

(Start: 195 @51642 has 56 MA's), (276, 51792), (318, 51873), (320, 51882), (336, 51921), (339, 51936), (355, 51984), (384, 52083), (415, 52164), (442, 52221),

Gene: Briakila\_8 Start: 6278, Stop: 5625, Start Num: 154

Candidate Starts for Briakila\_8:

(Start: 154 @6278 has 4 MA's), (Start: 163 @6260 has 1 MA's), (Start: 191 @6203 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Brilliant\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Brilliant\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: BrownCNA\_7 Start: 6240, Stop: 5680, Start Num: 192

Candidate Starts for BrownCNA\_7:

(131, 6360), (133, 6357), (Start: 192 @6240 has 60 MA's), (Start: 280 @6084 has 4 MA's), (283, 6072), (288, 6063), (317, 6015), (337, 5967), (339, 5955), (343, 5943), (352, 5916), (356, 5904), (384, 5808), (403, 5775), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: Brownie5\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Brownie5\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: BruceB\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for BruceB\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106),

(318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Buckeye\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Buckeye\_6:

(148, 4003), (179, 3943), (Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Burr\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Burr\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Bush\_38 Start: 22678, Stop: 23259, Start Num: 221

Candidate Starts for Bush\_38:

(103, 22423), (Start: 221 @22678 has 9 MA's), (236, 22708), (Start: 280 @22831 has 4 MA's), (290, 22858), (301, 22879), (322, 22921), (328, 22936), (333, 22948), (347, 22990), (372, 23077), (374, 23083), (378, 23095), (404, 23149),

Gene: CLED96\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for CLED96\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: CRB2\_9 Start: 6920, Stop: 6342, Start Num: 190

Candidate Starts for CRB2\_9:

(Start: 190 @6920 has 256 MA's), (Start: 227 @6866 has 33 MA's), (259, 6818), (Start: 280 @6755 has 4 MA's), (319, 6680), (334, 6644), (337, 6638), (343, 6614), (356, 6575), (367, 6542), (374, 6503), (375, 6500), (378, 6491), (394, 6464), (406, 6431), (443, 6362),

Gene: CaiB\_8 Start: 6372, Stop: 5821, Start Num: 191

Candidate Starts for CaiB\_8:

(152, 6432), (160, 6417), (162, 6411), (Start: 191 @6372 has 52 MA's), (Start: 220 @6327 has 3 MA's), (224, 6321), (Start: 280 @6234 has 4 MA's), (287, 6216), (300, 6192), (317, 6165), (318, 6162), (319, 6159), (354, 6060), (378, 5979), (410, 5907), (419, 5886), (446, 5832),

Gene: Calamitous\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Calamitous\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: CamL\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for CamL\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),



Gene: Cambiare\_51 Start: 38958, Stop: 39542, Start Num: 228

Candidate Starts for Cambiare\_51:

(69, 38583), (146, 38796), (147, 38799), (Start: 205 @38916 has 1 MA's), (Start: 228 @38958 has 68 MA's), (257, 39024), (307, 39132), (317, 39153), (318, 39156), (319, 39159), (325, 39180), (342, 39222), (355, 39261), (366, 39294), (374, 39327), (386, 39363), (398, 39411), (410, 39438), (444, 39504),

Gene: CampRoach\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for CampRoach\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Camri\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Camri\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: CandC\_60 Start: 41891, Stop: 41328, Start Num: 211

Candidate Starts for CandC\_60:

(80, 42188), (Start: 211 @41891 has 35 MA's), (279, 41747), (375, 41492), (378, 41483), (410, 41414), (443, 41351),

Gene: Cannibal\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Cannibal\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: CaptainKirk2\_75 Start: 45228, Stop: 45818, Start Num: 210

Candidate Starts for CaptainKirk2\_75:

(72, 44955), (78, 44976), (Start: 210 @45228 has 38 MA's), (317, 45435), (321, 45450), (325, 45462), (328, 45468), (344, 45513), (351, 45531), (356, 45549), (357, 45552), (368, 45591), (369, 45594), (410, 45720), (446, 45792),

Gene: CarolAnn\_76 Start: 51274, Stop: 51864, Start Num: 210

Candidate Starts for CarolAnn\_76:

(Start: 210 @51274 has 38 MA's), (296, 51451), (321, 51496), (325, 51508), (328, 51514), (344, 51559), (351, 51577), (356, 51595), (357, 51598), (368, 51637), (369, 51640), (410, 51766), (446, 51838),

Gene: Carthage\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Carthage\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Casbah\_7 Start: 5262, Stop: 4711, Start Num: 191

Candidate Starts for Casbah\_7:

(Start: 156 @5334 has 7 MA's), (Start: 191 @5262 has 52 MA's), (Start: 252 @5181 has 1 MA's), (271, 5154), (Start: 280 @5115 has 4 MA's), (294, 5082), (304, 5070), (363, 4917), (374, 4875), (384,

4842), (403, 4809), (431, 4758), (443, 4731),

Gene: Casend\_54 Start: 41950, Stop: 41372, Start Num: 211

Candidate Starts for Casend\_54:

(94, 42193), (159, 42031), (Start: 211 @41950 has 35 MA's), (270, 41839), (309, 41734), (348, 41629), (362, 41584), (364, 41578), (374, 41539), (379, 41524), (404, 41470), (443, 41395),

Gene: CassieYates\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for CassieYates\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Cedasite\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Cedasite\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: ChaChing\_8 Start: 5429, Stop: 4860, Start Num: 191

Candidate Starts for ChaChing\_8:

(Start: 154 @5504 has 4 MA's), (Start: 163 @5486 has 1 MA's), (Start: 191 @5429 has 52 MA's), (Start: 252 @5330 has 1 MA's), (271, 5303), (Start: 280 @5264 has 4 MA's), (294, 5231), (304, 5219), (363, 5066), (374, 5024), (384, 4991), (403, 4958), (431, 4907), (443, 4880),

Gene: ChadMasterC\_68 Start: 53124, Stop: 53762, Start Num: 195

Candidate Starts for ChadMasterC\_68:

(55, 52734), (58, 52770), (63, 52788), (104, 52938), (Start: 139 @53022 has 11 MA's), (Start: 165 @53070 has 1 MA's), (Start: 177 @53091 has 3 MA's), (Start: 195 @53124 has 56 MA's), (239, 53199), (276, 53274), (320, 53364), (336, 53403), (339, 53418), (355, 53466), (357, 53472), (374, 53532), (381, 53553), (384, 53565), (415, 53646), (442, 53703),

Gene: Chaelin\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Chaelin\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511),

Gene: Chah\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Chah\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Chance64\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Chance64\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Chandler\_8 Start: 6176, Stop: 5625, Start Num: 191

Candidate Starts for Chandler\_8:

(Start: 156 @6248 has 7 MA's), (Start: 191 @6176 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Charles1\_6 Start: 3864, Stop: 3364, Start Num: 227

Candidate Starts for Charles1\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: CharlieGBrown\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for CharlieGBrown\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: CharlottesWeb\_6 Start: 4909, Stop: 4358, Start Num: 191

Candidate Starts for CharlottesWeb\_6:

(Start: 191 @4909 has 52 MA's), (243, 4828), (Start: 252 @4822 has 1 MA's), (264, 4804), (271, 4795), (317, 4693), (348, 4609), (362, 4564), (364, 4558), (374, 4519), (378, 4507), (379, 4504), (393, 4480), (403, 4453), (404, 4450), (443, 4378),

Gene: Charming\_72 Start: 50994, Stop: 51632, Start Num: 195

Candidate Starts for Charming\_72:

(Start: 195 @50994 has 56 MA's), (276, 51144), (318, 51225), (320, 51234), (336, 51273), (339, 51288), (355, 51336), (384, 51435), (415, 51516), (442, 51573),

Gene: CheetO\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for CheetO\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Cher\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Cher\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: CherryTomatoes\_181 Start: 130723, Stop: 131295, Start Num: 189

Candidate Starts for CherryTomatoes\_181:

(35, 130210), (115, 130567), (117, 130570), (Start: 189 @130723 has 4 MA's), (Start: 211 @130759 has 35 MA's), (222, 130777), (279, 130855), (284, 130873), (314, 130915), (334, 130963), (357, 131035), (374, 131095), (449, 131260),

Gene: Cherrybomb426\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Cherrybomb426\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Chickadee\_62 Start: 45756, Stop: 46382, Start Num: 195

Candidate Starts for Chickadee\_62:

(Start: 195 @45756 has 56 MA's), (Start: 228 @45813 has 68 MA's), (269, 45897), (306, 45969), (317, 45999), (351, 46098), (382, 46200), (404, 46260), (434, 46314), (441, 46329),

Gene: Childish\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Childish\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Chorkpop\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Chorkpop\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: ChrisnMich\_6 Start: 5152, Stop: 4583, Start Num: 188

Candidate Starts for ChrisnMich\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (432, 4627), (442, 4606),

Gene: Chunky\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Chunky\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Chute\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Chute\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: ClamChowder\_65 Start: 47095, Stop: 47694, Start Num: 227

Candidate Starts for ClamChowder\_65:

(Start: 227 @47095 has 33 MA's), (357, 47410), (362, 47425), (374, 47470), (394, 47527), (404, 47560), (408, 47569), (425, 47599), (434, 47611), (456, 47677),

Gene: CloverMinnie\_8 Start: 6372, Stop: 5821, Start Num: 191

Candidate Starts for CloverMinnie\_8:

(152, 6432), (160, 6417), (162, 6411), (Start: 191 @6372 has 52 MA's), (Start: 220 @6327 has 3 MA's), (224, 6321), (Start: 280 @6234 has 4 MA's), (287, 6216), (300, 6192), (317, 6165), (318, 6162), (319, 6159), (354, 6060), (378, 5979), (410, 5907), (446, 5832),

Gene: Clown\_76 Start: 51335, Stop: 51934, Start Num: 227

Candidate Starts for Clown\_76:

(180, 51254), (Start: 227 @51335 has 33 MA's), (235, 51353), (352, 51635), (360, 51656), (362, 51665), (381, 51731), (408, 51809), (413, 51818), (425, 51839), (434, 51851), (456, 51917),

Gene: Cobra\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Cobra\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Coffee\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Coffee\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (135, 6477), (142, 6489), (144, 6495), (Start: 192 @6591 has 60 MA's), (234, 6663), (245, 6690), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Colbert\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Colbert\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Coldpizza\_7 Start: 6798, Stop: 6247, Start Num: 191

Candidate Starts for Coldpizza\_7:

(184, 6816), (Start: 191 @6798 has 52 MA's), (277, 6669), (306, 6606), (314, 6597), (318, 6591), (319, 6588), (336, 6549), (343, 6522), (356, 6483), (363, 6462), (384, 6387), (412, 6336),

Gene: Coleslaw\_51 Start: 37351, Stop: 37941, Start Num: 228

Candidate Starts for Coleslaw\_51:

(4, 36679), (5, 36682), (47, 36973), (68, 37102), (91, 37174), (149, 37297), (200, 37318), (203, 37324), (Start: 228 @37351 has 68 MA's), (248, 37399), (288, 37495), (302, 37522), (316, 37543), (318, 37549), (325, 37573), (356, 37660), (366, 37690), (374, 37723), (377, 37732), (391, 37771), (398, 37810), (410, 37837), (445, 37906),

Gene: Coletti\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Coletti\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Compostia\_8 Start: 5421, Stop: 4870, Start Num: 191

Candidate Starts for Compostia\_8:

(Start: 156 @5493 has 7 MA's), (Start: 191 @5421 has 52 MA's), (Start: 252 @5340 has 1 MA's), (271, 5313), (Start: 280 @5274 has 4 MA's), (294, 5241), (304, 5229), (363, 5076), (374, 5034), (384, 5001), (403, 4968), (431, 4917), (443, 4890),

Gene: Cooper\_7 Start: 5099, Stop: 4623, Start Num: 250

Candidate Starts for Cooper\_7:

(Start: 188 @5213 has 3 MA's), (Start: 192 @5204 has 60 MA's), (Start: 250 @5099 has 1 MA's), (Start: 252 @5096 has 1 MA's), (269, 5072), (Start: 280 @5030 has 4 MA's), (283, 5018), (317, 4958), (337, 4910), (343, 4886), (357, 4844), (374, 4784), (394, 4745), (406, 4712), (410, 4703), (412, 4700), (432, 4667), (442, 4646),

Gene: Cornobble\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Cornobble\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Corofin\_8 Start: 5438, Stop: 4860, Start Num: 191

Candidate Starts for Corofin\_8:

(Start: 156 @5510 has 7 MA's), (Start: 191 @5438 has 52 MA's), (Start: 252 @5330 has 1 MA's), (271, 5303), (Start: 280 @5264 has 4 MA's), (294, 5231), (304, 5219), (363, 5066), (374, 5024), (384, 4991), (403, 4958), (431, 4907), (443, 4880),

Gene: Cosmolli16\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Cosmolli16\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: CoveyB\_64 Start: 46929, Stop: 47531, Start Num: 227

Candidate Starts for CoveyB\_64:

(Start: 227 @46929 has 33 MA's), (331, 47169), (357, 47247), (362, 47262), (374, 47307), (381, 47328), (404, 47397), (406, 47400), (408, 47406), (425, 47436), (434, 47448), (456, 47514),

Gene: Cracklewink\_89 Start: 56009, Stop: 56578, Start Num: 228

Candidate Starts for Cracklewink\_89:

(199, 55973), (Start: 228 @56009 has 68 MA's), (294, 56165), (296, 56168), (301, 56177), (317, 56198), (318, 56201), (339, 56258), (347, 56282), (355, 56306), (356, 56309), (357, 56312), (361, 56324), (373, 56372), (380, 56393), (399, 56459), (403, 56468), (427, 56513), (430, 56516), (443, 56546),

Gene: Craff\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Craff\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Crespo\_50 Start: 36915, Stop: 37505, Start Num: 228

Candidate Starts for Crespo\_50:

(4, 36243), (5, 36246), (47, 36537), (68, 36666), (91, 36738), (149, 36861), (200, 36882), (203, 36888), (Start: 228 @36915 has 68 MA's), (248, 36963), (288, 37059), (302, 37086), (316, 37107), (318, 37113), (325, 37137), (356, 37224), (366, 37254), (374, 37287), (377, 37296), (391, 37335), (398, 37374), (410, 37401), (445, 37470),

Gene: Crownjwl\_7 Start: 4153, Stop: 3599, Start Num: 190

Candidate Starts for Crownjwl\_7:

(Start: 190 @4153 has 256 MA's), (Start: 220 @4108 has 3 MA's), (Start: 227 @4099 has 33 MA's), (Start: 280 @4003 has 4 MA's), (319, 3928), (334, 3892), (337, 3886), (375, 3757), (378, 3748),

Gene: DMoney\_50 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for DMoney\_50:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: DNAlll\_0049 Start: 35449, Stop: 36039, Start Num: 228

Candidate Starts for DNAlll\_0049:

(3, 34744), (4, 34777), (5, 34780), (47, 35071), (68, 35200), (91, 35272), (149, 35395), (200, 35416), (203, 35422), (Start: 228 @35449 has 68 MA's), (248, 35497), (288, 35593), (302, 35620), (316, 35641), (318, 35647), (325, 35671), (356, 35758), (366, 35788), (374, 35821), (377, 35830), (391, 35869), (398, 35908), (410, 35935), (445, 36004),

Gene: DaddyDaniels\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for DaddyDaniels\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438,

3401),

Gene: Daegal\_76 Start: 49270, Stop: 49962, Start Num: 139

Candidate Starts for Daegal\_76:

(60, 49033), (Start: 139 @49270 has 11 MA's), (143, 49279), (167, 49321), (Start: 208 @49351 has 15 MA's), (249, 49432), (283, 49516), (296, 49540), (301, 49549), (318, 49579), (330, 49612), (352, 49678), (364, 49714), (379, 49768), (386, 49792), (388, 49795), (393, 49810), (403, 49837), (410, 49852), (415, 49861), (425, 49879), (436, 49894),

Gene: Daffy\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Daffy\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Daisy\_8 Start: 5492, Stop: 4866, Start Num: 154

Candidate Starts for Daisy\_8:

(Start: 154 @5492 has 4 MA's), (Start: 163 @5474 has 1 MA's), (Start: 191 @5417 has 52 MA's), (Start: 252 @5336 has 1 MA's), (271, 5309), (Start: 280 @5270 has 4 MA's), (294, 5237), (304, 5225), (363, 5072), (374, 5030), (384, 4997), (403, 4964), (431, 4913), (443, 4886),

Gene: Daka\_6 Start: 3876, Stop: 3367, Start Num: 220

Candidate Starts for Daka\_6:

(Start: 190 @3921 has 256 MA's), (Start: 211 @3891 has 35 MA's), (Start: 220 @3876 has 3 MA's), (Start: 280 @3771 has 4 MA's), (319, 3696), (334, 3660), (337, 3654), (375, 3525), (378, 3516), (438, 3405),

Gene: Danyall\_64 Start: 47189, Stop: 47788, Start Num: 227

Candidate Starts for Danyall\_64:

(Start: 227 @47189 has 33 MA's), (362, 47519), (374, 47564), (394, 47621), (404, 47654), (408, 47663), (425, 47693), (434, 47705), (456, 47771),

Gene: Darionha\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Darionha\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Dati\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Dati\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Deenasa\_8 Start: 6176, Stop: 5625, Start Num: 191

Candidate Starts for Deenasa\_8:

(Start: 156 @6248 has 7 MA's), (Start: 191 @6176 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: DeepSoil15\_74 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for DeepSoil15\_74:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352,

48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: DelRivs\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for DelRivs\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Delian\_78 Start: 45226, Stop: 45816, Start Num: 210

Candidate Starts for Delian\_78:

(72, 44953), (78, 44974), (Start: 210 @45226 has 38 MA's), (317, 45433), (321, 45448), (325, 45460), (328, 45466), (344, 45511), (351, 45529), (356, 45547), (357, 45550), (368, 45589), (369, 45592), (410, 45718), (446, 45790),

Gene: Delrey21\_65 Start: 50949, Stop: 51596, Start Num: 195

Candidate Starts for Delrey21\_65:

(115, 50787), (119, 50793), (122, 50811), (Start: 170 @50898 has 4 MA's), (Start: 195 @50949 has 56 MA's), (237, 51027), (256, 51069), (258, 51075), (269, 51090), (289, 51141), (317, 51192), (339, 51258), (382, 51393), (384, 51402), (417, 51480), (434, 51507), (460, 51585),

Gene: Derg\_64 Start: 48781, Stop: 49416, Start Num: 195

Candidate Starts for Derg\_64:

(Start: 195 @48781 has 56 MA's), (320, 49018), (336, 49057), (339, 49072), (350, 49102), (352, 49111), (355, 49120), (415, 49300), (421, 49318),

Gene: Derpp\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Derpp\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Devonte\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for Devonte\_8:

(Start: 154 @5489 has 4 MA's), (Start: 163 @5471 has 1 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Dewey\_67 Start: 48164, Stop: 48856, Start Num: 139

Candidate Starts for Dewey\_67:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: Dxdert\_63 Start: 45910, Stop: 46542, Start Num: 195

Candidate Starts for Dxdert\_63:

(Start: 195 @45910 has 56 MA's), (269, 46051), (317, 46153), (336, 46204), (339, 46219), (360, 46279), (382, 46354), (404, 46414), (417, 46441), (434, 46468), (441, 46483), (457, 46531),

Gene: Dice\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Dice\_6:

(Start: 190 @3917 has 256 MA's), (Start: 211 @3887 has 35 MA's), (Start: 220 @3872 has 3 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),



3401),

Gene: DigitDog\_8 Start: 6203, Stop: 5640, Start Num: 192

Candidate Starts for DigitDog\_8:

(Start: 192 @6203 has 60 MA's), (230, 6146), (Start: 280 @6047 has 4 MA's), (319, 5969), (337, 5927), (343, 5903), (356, 5864), (374, 5801), (375, 5798), (378, 5789), (394, 5762), (428, 5690), (432, 5684), (442, 5663), (446, 5651),

Gene: Dingo\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Dingo\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Dione\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Dione\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: DirtJuice\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for DirtJuice\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: DoctorFroggo\_65 Start: 50949, Stop: 51596, Start Num: 195

Candidate Starts for DoctorFroggo\_65:

(115, 50787), (119, 50793), (122, 50811), (Start: 170 @50898 has 4 MA's), (Start: 195 @50949 has 56 MA's), (237, 51027), (256, 51069), (258, 51075), (269, 51090), (289, 51141), (317, 51192), (339, 51258), (382, 51393), (384, 51402), (417, 51480), (434, 51507), (460, 51585),

Gene: Doddsville\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Doddsville\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: DoesntMatter\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for DoesntMatter\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: DonSanchon\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for DonSanchon\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: DonaldDuck\_53 Start: 41299, Stop: 40721, Start Num: 211

Candidate Starts for DonaldDuck\_53:

(94, 41542), (159, 41380), (Start: 211 @41299 has 35 MA's), (270, 41188), (309, 41083), (348, 40978), (362, 40933), (364, 40927), (374, 40888), (379, 40873), (404, 40819), (443, 40744),

Gene: Donny\_8 Start: 6217, Stop: 5651, Start Num: 192

Candidate Starts for Donny\_8:

(Start: 192 @6217 has 60 MA's), (230, 6160), (Start: 280 @6058 has 4 MA's), (319, 5980), (337, 5938), (343, 5914), (352, 5887), (356, 5875), (378, 5800), (394, 5773), (428, 5701), (432, 5695),

Gene: Dropshot\_37 Start: 22403, Stop: 22966, Start Num: 221

Candidate Starts for Dropshot\_37:

(Start: 221 @22403 has 9 MA's), (Start: 228 @22415 has 68 MA's), (236, 22433), (271, 22496), (Start: 280 @22538 has 4 MA's), (296, 22577), (302, 22589), (322, 22628), (328, 22643), (333, 22655), (343, 22688), (346, 22694), (372, 22784), (374, 22790), (378, 22802), (404, 22856),

Gene: DuchessDung\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for DuchessDung\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Duggie\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Duggie\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Durga\_6 Start: 3914, Stop: 3360, Start Num: 190

Candidate Starts for Durga\_6:

(Start: 190 @3914 has 256 MA's), (Start: 220 @3869 has 3 MA's), (Start: 227 @3860 has 33 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438, 3398),

Gene: E3\_gp158 Start: 109470, Stop: 110030, Start Num: 193

Candidate Starts for E3\_gp158:

(129, 109350), (157, 109401), (182, 109449), (193, 109470), (Start: 196 @109476 has 1 MA's), (241, 109545), (Start: 250 @109551 has 1 MA's), (291, 109629), (317, 109668), (318, 109671), (319, 109674), (357, 109782), (374, 109842), (416, 109935),

Gene: ECartman\_49 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for ECartman\_49:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: EMoore\_63 Start: 50022, Stop: 50669, Start Num: 197

Candidate Starts for EMoore\_63:

(Start: 197 @50022 has 5 MA's), (258, 50148), (269, 50163), (283, 50220), (289, 50232), (299, 50250), (317, 50292), (336, 50343), (340, 50361), (356, 50409), (357, 50412), (379, 50478), (382, 50484), (410, 50556), (434, 50598), (442, 50619),

Gene: Eaglehorse\_9 Start: 6492, Stop: 7067, Start Num: 192

Candidate Starts for Eaglehorse\_9:

(123, 6357), (Start: 132 @6375 has 2 MA's), (144, 6396), (145, 6399), (Start: 192 @6492 has 60 MA's), (Start: 228 @6549 has 68 MA's), (Start: 233 @6561 has 2 MA's), (Start: 240 @6579 has 1 MA's), (283, 6672), (288, 6681), (319, 6735), (334, 6771), (335, 6774), (337, 6777), (348, 6813), (359, 6849), (362, 6858), (374, 6903), (375, 6906), (378, 6915), (406, 6975), (409, 6981), (410, 6984), (432,

7020), (443, 7044), (446, 7053),

Gene: EastView9101\_8 Start: 6217, Stop: 5651, Start Num: 192

Candidate Starts for EastView9101\_8:

(Start: 192 @6217 has 60 MA's), (230, 6160), (Start: 280 @6058 has 4 MA's), (319, 5980), (337, 5938), (343, 5914), (352, 5887), (356, 5875), (378, 5800), (394, 5773), (428, 5701), (432, 5695),

Gene: EdmundFerry\_59 Start: 44985, Stop: 45611, Start Num: 195

Candidate Starts for EdmundFerry\_59:

(Start: 195 @44985 has 56 MA's), (269, 45126), (317, 45228), (351, 45327), (382, 45429), (404, 45489), (434, 45543), (441, 45558),

Gene: Ein37\_74 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for Ein37\_74:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: Emiris\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Emiris\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: EmpTee\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for EmpTee\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Epah\_6 Start: 5143, Stop: 4583, Start Num: 192

Candidate Starts for Epah\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Eremos\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Eremos\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Etaye\_6 Start: 3765, Stop: 3361, Start Num: 280

Candidate Starts for Etaye\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Eugenia\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Eugenia\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Evaa\_7 Start: 6193, Stop: 5651, Start Num: 191

Candidate Starts for Evaa\_7:

(67, 6520), (Start: 191 @6193 has 52 MA's), (277, 6064), (294, 6022), (306, 6001), (317, 5989), (319, 5983), (336, 5944), (352, 5890), (356, 5878), (363, 5857), (374, 5815), (410, 5734),

Gene: Evamon\_62 Start: 46633, Stop: 47232, Start Num: 227

Candidate Starts for Evamon\_62:

(Start: 227 @46633 has 33 MA's), (357, 46948), (362, 46963), (374, 47008), (394, 47065), (397, 47080), (404, 47098), (408, 47107), (413, 47116), (425, 47137), (434, 47149), (456, 47215),

Gene: Evanesce\_73 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for Evanesce\_73:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: EverythinBagel\_53 Start: 41660, Stop: 41082, Start Num: 211

Candidate Starts for EverythinBagel\_53:

(92, 41912), (94, 41903), (159, 41741), (Start: 211 @41660 has 35 MA's), (270, 41549), (309, 41444), (348, 41339), (362, 41294), (364, 41288), (374, 41249), (379, 41234), (404, 41180), (443, 41105),

Gene: Eyre\_59 Start: 38628, Stop: 39218, Start Num: 207

Candidate Starts for Eyre\_59:

(141, 38547), (162, 38586), (Start: 207 @38628 has 1 MA's), (214, 38640), (263, 38730), (296, 38805), (301, 38814), (317, 38835), (321, 38850), (325, 38862), (383, 39042), (410, 39117), (452, 39207),

Gene: Fairfaxidum\_77 Start: 47701, Stop: 48291, Start Num: 210

Candidate Starts for Fairfaxidum\_77:

(Start: 210 @47701 has 38 MA's), (321, 47923), (325, 47935), (328, 47941), (344, 47986), (369, 48067), (410, 48193), (434, 48232),

Gene: Fanaw\_7 Start: 6243, Stop: 5680, Start Num: 192

Candidate Starts for Fanaw\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (334, 5973), (337, 5967), (339, 5955), (352, 5916), (356, 5904), (374, 5841), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (442, 5703),

Gene: Fang\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Fang\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Faze9\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Faze9\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (135, 6477), (142, 6489), (144, 6495), (Start: 192 @6591 has 60 MA's), (234, 6663), (245, 6690), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Fenry\_74 Start: 47299, Stop: 47889, Start Num: 210

Candidate Starts for Fenry\_74:

(Start: 210 @47299 has 38 MA's), (321, 47521), (325, 47533), (328, 47539), (344, 47584), (351, 47602), (356, 47620), (357, 47623), (368, 47662), (369, 47665), (410, 47791),

Gene: Finch\_5 Start: 2997, Stop: 3599, Start Num: 176

Candidate Starts for Finch\_5:

(120, 2898), (Start: 176 @2997 has 1 MA's), (Start: 217 @3066 has 1 MA's), (287, 3171), (315, 3213), (319, 3222), (342, 3285), (350, 3309), (353, 3321), (358, 3336), (374, 3390), (375, 3393), (393, 3429), (403, 3456), (407, 3465), (443, 3531),

Gene: Fireball\_66 Start: 47491, Stop: 48090, Start Num: 227

Candidate Starts for Fireball\_66:

(113, 47263), (Start: 227 @47491 has 33 MA's), (357, 47806), (362, 47821), (374, 47866), (394, 47923), (404, 47956), (408, 47965), (425, 47995), (434, 48007), (447, 48043), (456, 48073),

Gene: Fitzgerald\_67 Start: 51775, Stop: 52413, Start Num: 195

Candidate Starts for Fitzgerald\_67:

(92, 51544), (99, 51568), (Start: 139 @51673 has 11 MA's), (Start: 165 @51721 has 1 MA's), (Start: 177 @51742 has 3 MA's), (Start: 195 @51775 has 56 MA's), (276, 51925), (320, 52015), (336, 52054), (339, 52069), (355, 52117), (357, 52123), (384, 52216), (415, 52297), (442, 52354),

Gene: Fizzles\_56 Start: 42284, Stop: 41706, Start Num: 211

Candidate Starts for Fizzles\_56:

(Start: 211 @42284 has 35 MA's), (270, 42173), (288, 42104), (290, 42101), (309, 42068), (344, 41975), (362, 41918), (374, 41873), (379, 41858), (404, 41804), (443, 41729),

Gene: FlagStaff\_49 Start: 37465, Stop: 38049, Start Num: 228

Candidate Starts for FlagStaff\_49:

(Start: 228 @37465 has 68 MA's), (257, 37531), (307, 37639), (317, 37660), (318, 37663), (319, 37666), (325, 37687), (355, 37768), (366, 37801), (374, 37834), (377, 37843), (398, 37918), (410, 37945),

Gene: Flatwoods\_67 Start: 49662, Stop: 50297, Start Num: 195

Candidate Starts for Flatwoods\_67:

(Start: 195 @49662 has 56 MA's), (320, 49899), (336, 49938), (339, 49953), (350, 49983), (352, 49992), (355, 50001), (384, 50100), (404, 50160), (421, 50199),

Gene: FluffyNinja\_6 Start: 3871, Stop: 3362, Start Num: 220

Candidate Starts for FluffyNinja\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Forge\_67 Start: 48164, Stop: 48856, Start Num: 139

Candidate Starts for Forge\_67:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: Fortunato\_7 Start: 6288, Stop: 5677, Start Num: 170

Candidate Starts for Fortunato\_7:

(Start: 163 @6297 has 1 MA's), (Start: 170 @6288 has 4 MA's), (Start: 188 @6246 has 3 MA's), (Start: 192 @6237 has 60 MA's), (Start: 280 @6081 has 4 MA's), (283, 6069), (317, 6012), (334, 5970), (337, 5964), (339, 5952), (343, 5940), (352, 5913), (384, 5805), (403, 5772), (404, 5769), (410, 5757), (412, 5754), (428, 5727), (432, 5721), (442, 5700),

Gene: Fosterous\_71 Start: 51988, Stop: 52626, Start Num: 195

Candidate Starts for Fosterous\_71:

(Start: 195 @51988 has 56 MA's), (276, 52138), (318, 52219), (320, 52228), (336, 52267), (339, 52282), (355, 52330), (384, 52429), (415, 52510), (442, 52567),

Gene: Fozzie\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Fozzie\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: FrankDeliGuy\_51 Start: 41277, Stop: 40702, Start Num: 202

Candidate Starts for FrankDeliGuy\_51:

(Start: 202 @41277 has 4 MA's), (242, 41208), (302, 41070), (309, 41061), (317, 41043), (354, 40935), (359, 40920), (362, 40911), (374, 40866), (378, 40854), (414, 40779), (431, 40749), (443, 40725),

Gene: Frankicide\_6 Start: 3920, Stop: 3366, Start Num: 190

Candidate Starts for Frankicide\_6:

(Start: 190 @3920 has 256 MA's), (Start: 211 @3890 has 35 MA's), (Start: 220 @3875 has 3 MA's), (Start: 227 @3866 has 33 MA's), (Start: 280 @3770 has 4 MA's), (319, 3695), (334, 3659), (337, 3653), (375, 3524), (378, 3515), (438, 3404),

Gene: Fransoyer\_57 Start: 43875, Stop: 43294, Start Num: 211

Candidate Starts for Fransoyer\_57:

(66, 44238), (Start: 211 @43875 has 35 MA's), (Start: 252 @43794 has 1 MA's), (266, 43773), (288, 43698), (309, 43662), (321, 43629), (355, 43533), (357, 43527), (362, 43512), (375, 43461), (443, 43320), (447, 43308),

Gene: Frederick\_7 Start: 6294, Stop: 5680, Start Num: 170

Candidate Starts for Frederick\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (352, 5916), (356, 5904), (374, 5841), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: FrenchFry\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for FrenchFry\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (319, 6834), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Fresco\_6 Start: 4904, Stop: 4362, Start Num: 191

Candidate Starts for Fresco\_6:

(37, 5378), (67, 5207), (Start: 191 @4904 has 52 MA's), (Start: 227 @4850 has 33 MA's), (264, 4811), (317, 4697), (364, 4565), (374, 4526), (378, 4514), (379, 4511), (393, 4487), (403, 4460), (432, 4406),

(443, 4382),

Gene: Freya\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Freya\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514),

Gene: FriarPreacher\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for FriarPreacher\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Fringe\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Fringe\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Frokostdame\_79 Start: 49511, Stop: 50095, Start Num: 210

Candidate Starts for Frokostdame\_79:

(52, 49172), (Start: 210 @49511 has 38 MA's), (254, 49592), (255, 49595), (285, 49664), (317, 49715), (318, 49718), (319, 49721), (336, 49760), (341, 49781), (368, 49868), (375, 49892), (380, 49907), (383, 49919), (388, 49928), (410, 49988), (452, 50078),

Gene: Frosty24\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Frosty24\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: FugateOSU\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for FugateOSU\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Fugax\_66 Start: 47087, Stop: 47686, Start Num: 227

Candidate Starts for Fugax\_66:

(Start: 227 @47087 has 33 MA's), (357, 47402), (362, 47417), (374, 47462), (394, 47519), (404, 47552), (408, 47561), (425, 47591), (434, 47603), (456, 47669),

Gene: Funsized\_11 Start: 8078, Stop: 7494, Start Num: 192

Candidate Starts for Funsized\_11:

(182, 8102), (Start: 192 @8078 has 60 MA's), (Start: 196 @8072 has 1 MA's), (Start: 250 @7973 has 1 MA's), (262, 7955), (Start: 280 @7904 has 4 MA's), (317, 7829), (321, 7814), (337, 7781), (339, 7769), (352, 7730), (354, 7724), (356, 7718), (357, 7715), (374, 7655), (410, 7574), (412, 7571), (420, 7553), (432, 7538), (442, 7517), (443, 7514),

Gene: GTE6\_62 Start: 46212, Stop: 46838, Start Num: 195

Candidate Starts for GTE6\_62:

(Start: 195 @46212 has 56 MA's), (Start: 228 @46269 has 68 MA's), (269, 46353), (317, 46455), (351, 46554), (382, 46656), (404, 46716), (434, 46770), (441, 46785),

Gene: Gadget\_9 Start: 5418, Stop: 4867, Start Num: 191

Candidate Starts for Gadget\_9:

(Start: 154 @5493 has 4 MA's), (Start: 163 @5475 has 1 MA's), (Start: 191 @5418 has 52 MA's), (Start: 252 @5337 has 1 MA's), (271, 5310), (Start: 280 @5271 has 4 MA's), (294, 5238), (304, 5226), (363, 5073), (374, 5031), (384, 4998), (403, 4965), (431, 4914), (443, 4887),

Gene: Gaea\_67 Start: 49891, Stop: 50526, Start Num: 197

Candidate Starts for Gaea\_67:

(155, 49813), (Start: 197 @49891 has 5 MA's), (276, 50038), (320, 50128), (336, 50167), (339, 50182), (354, 50227), (357, 50236), (374, 50296), (384, 50329), (421, 50428),

Gene: Galadriel\_68 Start: 51942, Stop: 52580, Start Num: 195

Candidate Starts for Galadriel\_68:

(Start: 195 @51942 has 56 MA's), (276, 52092), (320, 52182), (336, 52221), (339, 52236), (355, 52284), (357, 52290), (384, 52383), (415, 52464), (442, 52521),

Gene: Gambino\_82 Start: 50046, Stop: 50630, Start Num: 210

Candidate Starts for Gambino\_82:

(1, 48945), (2, 48966), (6, 49161), (8, 49203), (12, 49221), (26, 49341), (36, 49608), (52, 49704), (Start: 210 @50046 has 38 MA's), (254, 50127), (255, 50130), (285, 50199), (317, 50250), (318, 50253), (319, 50256), (336, 50295), (341, 50316), (368, 50403), (380, 50442), (383, 50454), (388, 50463), (410, 50523), (425, 50550),

Gene: Gancho\_73 Start: 48020, Stop: 48631, Start Num: 208

Candidate Starts for Gancho\_73:

(Start: 139 @47939 has 11 MA's), (143, 47948), (167, 47990), (Start: 208 @48020 has 15 MA's), (249, 48101), (283, 48185), (296, 48209), (301, 48218), (318, 48248), (330, 48281), (352, 48347), (364, 48383), (379, 48437), (386, 48461), (388, 48464), (393, 48479), (403, 48506), (410, 48521), (415, 48530), (425, 48548), (436, 48563),

Gene: Gareth\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Gareth\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Gazebo\_53 Start: 41824, Stop: 41252, Start Num: 211

Candidate Starts for Gazebo\_53:

(174, 41884), (Start: 211 @41824 has 35 MA's), (242, 41758), (302, 41620), (309, 41611), (317, 41593), (354, 41485), (359, 41470), (362, 41461), (374, 41416), (378, 41404), (414, 41329), (431, 41299), (443, 41275),

Gene: GeneCoco\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for GeneCoco\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Geodirt\_67 Start: 52126, Stop: 52818, Start Num: 165

Candidate Starts for Geodirt\_67:

(55, 51799), (58, 51835), (Start: 139 @52078 has 11 MA's), (Start: 165 @52126 has 1 MA's), (Start: 177 @52147 has 3 MA's), (Start: 195 @52180 has 56 MA's), (239, 52255), (276, 52330), (320, 52420), (336, 52459), (339, 52474), (355, 52522), (357, 52528), (381, 52609), (384, 52621), (415,



52702), (442, 52759),

Gene: Gervas\_8 Start: 5408, Stop: 4863, Start Num: 191

Candidate Starts for Gervas\_8:

(Start: 156 @5480 has 7 MA's), (Start: 191 @5408 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Gezellig\_64 Start: 47082, Stop: 47684, Start Num: 227

Candidate Starts for Gezellig\_64:

(Start: 227 @47082 has 33 MA's), (331, 47322), (357, 47400), (362, 47415), (374, 47460), (381, 47481), (404, 47550), (406, 47553), (408, 47559), (425, 47589), (434, 47601), (456, 47667),

Gene: Gideon\_52 Start: 37361, Stop: 37951, Start Num: 228

Candidate Starts for Gideon\_52:

(4, 36689), (5, 36692), (47, 36983), (68, 37112), (91, 37184), (149, 37307), (200, 37328), (203, 37334), (Start: 228 @37361 has 68 MA's), (248, 37409), (288, 37505), (302, 37532), (316, 37553), (318, 37559), (325, 37583), (356, 37670), (366, 37700), (374, 37733), (377, 37742), (391, 37781), (398, 37820), (410, 37847), (445, 37916),

Gene: Giles\_67 Start: 48164, Stop: 48856, Start Num: 139

Candidate Starts for Giles\_67:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: GinPorsche\_6 Start: 5152, Stop: 4583, Start Num: 188

Candidate Starts for GinPorsche\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Giraffe\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Giraffe\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Glass\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Glass\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (319, 6834), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: GlenHope\_9 Start: 5427, Stop: 4876, Start Num: 191

Candidate Starts for GlenHope\_9:

(Start: 156 @5499 has 7 MA's), (Start: 191 @5427 has 52 MA's), (Start: 252 @5346 has 1 MA's), (271, 5319), (Start: 280 @5280 has 4 MA's), (294, 5247), (304, 5235), (363, 5082), (374, 5040), (384, 5007), (403, 4974), (431, 4923), (443, 4896),

Gene: Godines\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Godines\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (234, 6546), (245, 6573), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: GoldenAsh\_50 Start: 36899, Stop: 37489, Start Num: 228

Candidate Starts for GoldenAsh\_50:

(4, 36227), (5, 36230), (47, 36521), (68, 36650), (91, 36722), (149, 36845), (200, 36866), (203, 36872), (Start: 228 @36899 has 68 MA's), (248, 36947), (288, 37043), (302, 37070), (316, 37091), (318, 37097), (325, 37121), (356, 37208), (366, 37238), (374, 37271), (377, 37280), (391, 37319), (398, 37358), (410, 37385), (445, 37454),

Gene: Gomashi\_50 Start: 36915, Stop: 37505, Start Num: 228

Candidate Starts for Gomashi\_50:

(4, 36243), (5, 36246), (47, 36537), (68, 36666), (91, 36738), (149, 36861), (200, 36882), (203, 36888), (Start: 228 @36915 has 68 MA's), (248, 36963), (288, 37059), (302, 37086), (316, 37107), (318, 37113), (325, 37137), (356, 37224), (366, 37254), (374, 37287), (377, 37296), (391, 37335), (398, 37374), (410, 37401), (445, 37470),

Gene: Gophee\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Gophee\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Grand2040\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Grand2040\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Grassboy\_56 Start: 41958, Stop: 41386, Start Num: 211

Candidate Starts for Grassboy\_56:

(Start: 163 @42045 has 1 MA's), (Start: 211 @41958 has 35 MA's), (242, 41892), (302, 41754), (309, 41745), (317, 41727), (354, 41619), (359, 41604), (362, 41595), (374, 41550), (378, 41538), (414, 41463), (431, 41433), (443, 41409),

Gene: Gravaillia\_68 Start: 48220, Stop: 48912, Start Num: 139

Candidate Starts for Gravaillia\_68:

(60, 47983), (Start: 139 @48220 has 11 MA's), (143, 48229), (167, 48271), (Start: 208 @48301 has 15 MA's), (249, 48382), (283, 48466), (296, 48490), (301, 48499), (318, 48529), (330, 48562), (352, 48628), (364, 48664), (379, 48718), (386, 48742), (388, 48745), (393, 48760), (403, 48787), (410, 48802), (415, 48811), (425, 48829), (436, 48844),

Gene: Grizzly\_51 Start: 36986, Stop: 37576, Start Num: 228

Candidate Starts for Grizzly\_51:

(47, 36608), (91, 36809), (149, 36932), (200, 36953), (203, 36959), (Start: 228 @36986 has 68 MA's), (288, 37130), (316, 37178), (318, 37184), (325, 37208), (356, 37295), (366, 37325), (374, 37358), (377, 37367), (391, 37406), (398, 37445), (410, 37472), (445, 37541),

Gene: Guacamole\_73 Start: 46646, Stop: 47236, Start Num: 210

Candidate Starts for Guacamole\_73:

(72, 46373), (78, 46394), (Start: 210 @46646 has 38 MA's), (317, 46853), (321, 46868), (325, 46880), (328, 46886), (344, 46931), (351, 46949), (356, 46967), (357, 46970), (368, 47009), (369, 47012), (410, 47138), (446, 47210),

Gene: Gustavo\_68 Start: 50864, Stop: 51499, Start Num: 195

Candidate Starts for Gustavo\_68:

(Start: 195 @50864 has 56 MA's), (320, 51101), (336, 51140), (339, 51155), (350, 51185), (352, 51194), (355, 51203), (384, 51302), (404, 51362), (421, 51401),

Gene: Gwilliam\_7 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Gwilliam\_7:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Gyarad\_006 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Gyarad\_006:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: HH92\_73 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for HH92\_73:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: HSavage\_6 Start: 3920, Stop: 3366, Start Num: 190

Candidate Starts for HSavage\_6:

(Start: 190 @3920 has 256 MA's), (Start: 211 @3890 has 35 MA's), (Start: 220 @3875 has 3 MA's), (Start: 280 @3770 has 4 MA's), (319, 3695), (334, 3659), (337, 3653), (375, 3524), (378, 3515), (438, 3404),

Gene: Hadrien\_71 Start: 48164, Stop: 48856, Start Num: 139

Candidate Starts for Hadrien\_71:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: Hail\_67 Start: 48164, Stop: 48856, Start Num: 139

Candidate Starts for Hail\_67:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: Haimas\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Haimas\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Haleema\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Haleema\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Halfpint\_7 Start: 5262, Stop: 4711, Start Num: 191

Candidate Starts for Halfpint\_7:

(Start: 156 @5334 has 7 MA's), (Start: 191 @5262 has 52 MA's), (Start: 252 @5181 has 1 MA's), (271, 5154), (Start: 280 @5115 has 4 MA's), (294, 5082), (304, 5070), (363, 4917), (374, 4875), (384, 4842), (403, 4809), (431, 4758), (443, 4731),

Gene: Hally898\_6 Start: 5143, Stop: 4583, Start Num: 192

Candidate Starts for Hally898\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Halo\_51 Start: 36909, Stop: 37499, Start Num: 228

Candidate Starts for Halo\_51:

(4, 36237), (5, 36240), (47, 36531), (68, 36660), (91, 36732), (149, 36855), (200, 36876), (203, 36882), (Start: 228 @36909 has 68 MA's), (248, 36957), (288, 37053), (302, 37080), (316, 37101), (318, 37107), (325, 37131), (356, 37218), (366, 37248), (374, 37281), (377, 37290), (391, 37329), (398, 37368), (410, 37395), (445, 37464),

Gene: Halo3\_62 Start: 47667, Stop: 48269, Start Num: 227

Candidate Starts for Halo3\_62:

(Start: 227 @47667 has 33 MA's), (331, 47907), (357, 47985), (362, 48000), (374, 48045), (381, 48066), (404, 48135), (406, 48138), (408, 48144), (425, 48174), (434, 48186), (447, 48222), (456, 48252),

Gene: Hamish\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Hamish\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Hangman\_7 Start: 6243, Stop: 5680, Start Num: 192

Candidate Starts for Hangman\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (352, 5916), (356, 5904), (374, 5841), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: Hans\_66 Start: 49390, Stop: 50037, Start Num: 195

Candidate Starts for Hans\_66:

(Start: 195 @49390 has 56 MA's), (258, 49516), (269, 49531), (283, 49588), (289, 49600), (295, 49612), (299, 49618), (317, 49660), (323, 49681), (336, 49711), (356, 49777), (357, 49780), (379, 49846), (382, 49852), (410, 49924), (434, 49966), (442, 49987),

Gene: Hartsy\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Hartsy\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Harvey\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Harvey\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: HarveySr\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for HarveySr\_8:

(Start: 156 @5486 has 7 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Hashim76\_11 Start: 5076, Stop: 4489, Start Num: 187

Candidate Starts for Hashim76\_11:

(Start: 181 @5088 has 2 MA's), (187, 5076), (Start: 190 @5067 has 256 MA's), (259, 4962), (269, 4947), (Start: 280 @4905 has 4 MA's), (319, 4827), (337, 4785), (374, 4650), (375, 4647), (432, 4533), (439, 4524), (443, 4509),

Gene: Heath\_7 Start: 6243, Stop: 5680, Start Num: 192

Candidate Starts for Heath\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (352, 5916), (356, 5904), (374, 5841), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: Heathcliff\_8 Start: 5408, Stop: 4863, Start Num: 191

Candidate Starts for Heathcliff\_8:

(Start: 156 @5480 has 7 MA's), (Start: 191 @5408 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Hedgerow\_9 Start: 6573, Stop: 7148, Start Num: 192

Candidate Starts for Hedgerow\_9:

(123, 6438), (Start: 132 @6456 has 2 MA's), (144, 6477), (145, 6480), (Start: 192 @6573 has 60 MA's), (Start: 228 @6630 has 68 MA's), (Start: 233 @6642 has 2 MA's), (Start: 240 @6660 has 1 MA's), (283, 6753), (288, 6762), (334, 6852), (335, 6855), (337, 6858), (348, 6894), (359, 6930), (362, 6939), (374, 6984), (375, 6987), (378, 6996), (406, 7056), (409, 7062), (410, 7065), (432, 7101), (443, 7125), (446, 7134),

Gene: Held\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Held\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: HenryJackson\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for HenryJackson\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Hertubise\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Hertubise\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Hetaeria\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Hetaeria\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: HighStump\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for HighStump\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Hilltopfarm\_84 Start: 54597, Stop: 55166, Start Num: 228

Candidate Starts for Hilltopfarm\_84:

(158, 54468), (161, 54471), (178, 54507), (Start: 228 @54597 has 68 MA's), (257, 54663), (294, 54753), (296, 54756), (317, 54786), (318, 54789), (339, 54846), (347, 54870), (352, 54885), (355, 54894), (356, 54897), (357, 54900), (361, 54912), (373, 54960), (380, 54981), (399, 55047), (408, 55068), (427, 55101), (440, 55122), (443, 55134),

Gene: Hitter\_73 Start: 44905, Stop: 45495, Start Num: 210

Candidate Starts for Hitter\_73:

(Start: 210 @44905 has 38 MA's), (321, 45127), (325, 45139), (328, 45145), (344, 45190), (351, 45208), (356, 45226), (357, 45229), (368, 45268), (369, 45271), (410, 45397),

Gene: Hocus\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Hocus\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Holeinone\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Holeinone\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: Hope\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Hope\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Horchata\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Horchata\_6:

(Start: 190 @3917 has 256 MA's), (Start: 211 @3887 has 35 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Hosp\_03 Start: 2921, Stop: 2343, Start Num: 192

Candidate Starts for Hosp\_03:

(Start: 192 @2921 has 60 MA's), (262, 2798), (269, 2789), (Start: 280 @2747 has 4 MA's), (300, 2705), (319, 2672), (337, 2630), (343, 2606), (352, 2579), (356, 2567), (357, 2564), (378, 2492), (394, 2465), (403, 2438), (410, 2423), (412, 2420), (432, 2387), (443, 2363),

Gene: Hotshotbaby7\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Hotshotbaby7\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Hydro\_7 Start: 6240, Stop: 5677, Start Num: 192

Candidate Starts for Hydro\_7:

(Start: 163 @6300 has 1 MA's), (Start: 170 @6291 has 4 MA's), (Start: 188 @6249 has 3 MA's), (Start: 192 @6240 has 60 MA's), (Start: 280 @6084 has 4 MA's), (283, 6072), (317, 6012), (334, 5970), (337, 5964), (339, 5952), (352, 5913), (356, 5901), (374, 5838), (384, 5805), (403, 5772), (404, 5769), (410, 5757), (412, 5754), (432, 5721), (442, 5700),

Gene: Hyperion\_53 Start: 41601, Stop: 41029, Start Num: 211

Candidate Starts for Hyperion\_53:

(43, 42087), (76, 41916), (81, 41895), (83, 41886), (109, 41799), (123, 41751), (174, 41661), (Start: 211 @41601 has 35 MA's), (242, 41535), (302, 41397), (309, 41388), (317, 41370), (354, 41262), (359, 41247), (362, 41238), (378, 41181), (414, 41106), (431, 41076), (443, 41052),

Gene: ImtiyazSitla\_6 Start: 3765, Stop: 3361, Start Num: 280

Candidate Starts for ImtiyazSitla\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Imvubu\_3 Start: 3042, Stop: 2464, Start Num: 192

Candidate Starts for Imvubu\_3:

(Start: 192 @3042 has 60 MA's), (Start: 250 @2937 has 1 MA's), (262, 2919), (Start: 280 @2868 has 4 MA's), (294, 2835), (319, 2793), (337, 2751), (352, 2700), (374, 2625), (410, 2544), (420, 2523), (432, 2508), (443, 2484),

Gene: Inchworm\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Inchworm\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Indlovu\_7 Start: 5906, Stop: 5328, Start Num: 181

Candidate Starts for Indlovu\_7:

(42, 6362), (53, 6290), (84, 6149), (86, 6143), (96, 6107), (172, 5927), (Start: 181 @5906 has 2 MA's), (Start: 190 @5885 has 256 MA's), (Start: 280 @5735 has 4 MA's), (281, 5732), (283, 5723), (290, 5711), (337, 5624), (343, 5600), (354, 5567), (356, 5561), (428, 5378),

Gene: Inspectinfecti\_65 Start: 49553, Stop: 50200, Start Num: 195

Candidate Starts for Inspectinfecti\_65:

(Start: 195 @49553 has 56 MA's), (237, 49631), (258, 49679), (269, 49694), (283, 49751), (289, 49763), (299, 49781), (317, 49823), (336, 49874), (356, 49940), (357, 49943), (379, 50009), (382, 50015), (410, 50087), (434, 50129), (442, 50150),

Gene: Inverness\_6 Start: 3920, Stop: 3366, Start Num: 190

Candidate Starts for Inverness\_6:

(Start: 190 @3920 has 256 MA's), (Start: 220 @3875 has 3 MA's), (Start: 280 @3770 has 4 MA's), (319, 3695), (334, 3659), (337, 3653), (375, 3524), (378, 3515), (438, 3404),

Gene: Iridoclysis\_6 Start: 3922, Stop: 3368, Start Num: 190

Candidate Starts for Iridoclysis\_6:

(Start: 190 @3922 has 256 MA's), (Start: 211 @3892 has 35 MA's), (Start: 220 @3877 has 3 MA's), (Start: 280 @3772 has 4 MA's), (319, 3697), (334, 3661), (337, 3655), (375, 3526), (378, 3517), (438, 3406),

Gene: IsaacEli\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for IsaacEli\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: ItsyBitsy1\_9 Start: 6465, Stop: 7040, Start Num: 192

Candidate Starts for ItsyBitsy1\_9:

(123, 6330), (Start: 132 @6348 has 2 MA's), (135, 6351), (144, 6369), (145, 6372), (Start: 192 @6465 has 60 MA's), (Start: 228 @6522 has 68 MA's), (Start: 233 @6534 has 2 MA's), (245, 6564), (283, 6645), (288, 6654), (334, 6744), (335, 6747), (337, 6750), (348, 6786), (359, 6822), (362, 6831), (374, 6876), (375, 6879), (378, 6888), (406, 6948), (409, 6954), (410, 6957), (432, 6993), (443, 7017), (446, 7026),

Gene: JAMaL\_6 Start: 5764, Stop: 5204, Start Num: 192

Candidate Starts for JAMaL\_6:

(Start: 192 @5764 has 60 MA's), (Start: 280 @5608 has 4 MA's), (334, 5497), (337, 5491), (339, 5479), (343, 5467), (356, 5428), (357, 5425), (374, 5365), (403, 5299), (404, 5296), (410, 5284), (412, 5281), (428, 5254), (432, 5248),

Gene: JDog\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for JDog\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: JKSyngboy\_65 Start: 50739, Stop: 51374, Start Num: 195

Candidate Starts for JKSyngboy\_65:

(Start: 195 @50739 has 56 MA's), (Start: 205 @50751 has 1 MA's), (320, 50976), (336, 51015), (339, 51030), (350, 51060), (352, 51069), (355, 51078), (384, 51177), (415, 51258), (442, 51315),

Gene: Jabberwocky\_67 Start: 52034, Stop: 52672, Start Num: 195

Candidate Starts for Jabberwocky\_67:

(98, 51833), (114, 51878), (Start: 139 @51932 has 11 MA's), (Start: 165 @51980 has 1 MA's), (Start: 177 @52001 has 3 MA's), (Start: 195 @52034 has 56 MA's), (276, 52184), (320, 52274), (336, 52313), (339, 52328), (355, 52376), (357, 52382), (384, 52475), (415, 52556), (442, 52613),

Gene: JacAttac\_6 Start: 3885, Stop: 3361, Start Num: 211

Candidate Starts for JacAttac\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),



Gene: Jackstina\_7 Start: 5402, Stop: 4752, Start Num: 156

Candidate Starts for Jackstina\_7:

(Start: 156 @5402 has 7 MA's), (Start: 191 @5330 has 52 MA's), (Start: 252 @5222 has 1 MA's), (271, 5195), (Start: 280 @5156 has 4 MA's), (294, 5123), (304, 5111), (363, 4958), (374, 4916), (384, 4883), (403, 4850), (431, 4799), (443, 4772),

Gene: JaguarMi\_7 Start: 5906, Stop: 5340, Start Num: 192

Candidate Starts for JaguarMi\_7:

(124, 6038), (134, 6020), (Start: 163 @5966 has 1 MA's), (168, 5960), (183, 5930), (Start: 192 @5906 has 60 MA's), (231, 5846), (269, 5792), (Start: 280 @5750 has 4 MA's), (319, 5669), (337, 5627), (343, 5603), (349, 5588), (356, 5564), (357, 5561), (374, 5501), (403, 5435), (404, 5432), (410, 5420), (412, 5417), (442, 5363),

Gene: JakeO\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for JakeO\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Jalammah\_78 Start: 48811, Stop: 49401, Start Num: 210

Candidate Starts for Jalammah\_78:

(Start: 210 @48811 has 38 MA's), (321, 49033), (325, 49045), (328, 49051), (344, 49096), (351, 49114), (356, 49132), (357, 49135), (368, 49174), (369, 49177), (410, 49303), (446, 49375),

Gene: Jambalaya\_62 Start: 46938, Stop: 47537, Start Num: 227

Candidate Starts for Jambalaya\_62:

(7, 45984), (9, 45990), (10, 45996), (11, 46002), (13, 46008), (16, 46032), (113, 46710), (Start: 227 @46938 has 33 MA's), (328, 47172), (362, 47268), (374, 47313), (394, 47370), (404, 47403), (408, 47412), (425, 47442), (434, 47454), (456, 47520),

Gene: Jane\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Jane\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: JangoPhett\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for JangoPhett\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: JasperJr\_73 Start: 46646, Stop: 47236, Start Num: 210

Candidate Starts for JasperJr\_73:

(72, 46373), (78, 46394), (Start: 210 @46646 has 38 MA's), (317, 46853), (321, 46868), (325, 46880), (328, 46886), (344, 46931), (351, 46949), (356, 46967), (357, 46970), (368, 47009), (369, 47012), (410, 47138), (446, 47210),

Gene: Jehoshaphat\_55 Start: 42218, Stop: 41640, Start Num: 211

Candidate Starts for Jehoshaphat\_55:

(94, 42461), (159, 42299), (Start: 211 @42218 has 35 MA's), (270, 42107), (309, 42002), (348, 41897), (362, 41852), (364, 41846), (374, 41807), (379, 41792), (404, 41738), (443, 41663),

Gene: Jillium\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Jillium\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Jiminy\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Jiminy\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Jiraiya\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Jiraiya\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Jolene\_51 Start: 37076, Stop: 37666, Start Num: 228

Candidate Starts for Jolene\_51:

(Start: 228 @37076 has 68 MA's), (248, 37124), (288, 37220), (316, 37268), (318, 37274), (325, 37298), (356, 37385), (366, 37415), (374, 37448), (377, 37457), (391, 37496), (398, 37535), (410, 37562), (445, 37631),

Gene: Jolie1\_05 Start: 4719, Stop: 4141, Start Num: 192

Candidate Starts for Jolie1\_05:

(Start: 192 @4719 has 60 MA's), (224, 4671), (262, 4596), (269, 4587), (Start: 280 @4545 has 4 MA's), (283, 4533), (300, 4503), (319, 4470), (337, 4428), (343, 4404), (357, 4362), (374, 4302), (378, 4290), (394, 4263), (410, 4221), (412, 4218), (420, 4200), (432, 4185), (443, 4161),

Gene: Jolie2\_51 Start: 38020, Stop: 38622, Start Num: 228

Candidate Starts for Jolie2\_51:

(87, 37849), (91, 37858), (104, 37903), (118, 37936), (Start: 228 @38020 has 68 MA's), (288, 38164), (318, 38218), (347, 38302), (356, 38329), (374, 38392), (377, 38401), (398, 38491), (410, 38518),

Gene: Jonghyun\_49 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Jonghyun\_49:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: JorRay\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for JorRay\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: JuJu\_82 Start: 50269, Stop: 50862, Start Num: 208

Candidate Starts for JuJu\_82:

(Start: 208 @50269 has 15 MA's), (321, 50494), (325, 50506), (328, 50512), (344, 50557), (351, 50575), (357, 50596), (369, 50638), (410, 50764), (446, 50836),

Gene: Judebell\_56 Start: 41864, Stop: 41286, Start Num: 211

Candidate Starts for Judebell\_56:

(Start: 211 @41864 has 35 MA's), (261, 41765), (270, 41753), (309, 41648), (362, 41498), (374, 41453), (379, 41438), (443, 41309),

Gene: JustASigh\_69 Start: 44678, Stop: 45514, Start Num: 107

Candidate Starts for JustASigh\_69:

(Start: 107 @44678 has 1 MA's), (167, 44810), (206, 44855), (Start: 212 @44867 has 10 MA's), (285, 45023), (296, 45044), (330, 45128), (344, 45170), (347, 45179), (370, 45257), (400, 45365), (402, 45368), (423, 45416), (429, 45425), (459, 45503),

Gene: KLucky39\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for KLucky39\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Kahve\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Kahve\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Kailash\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Kailash\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Kaleb\_9 Start: 6648, Stop: 7166, Start Num: 228

Candidate Starts for Kaleb\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (319, 6834), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Kamashten\_67 Start: 51068, Stop: 51706, Start Num: 195

Candidate Starts for Kamashten\_67:

(Start: 195 @51068 has 56 MA's), (276, 51218), (318, 51299), (320, 51308), (336, 51347), (339, 51362), (355, 51410), (384, 51509), (415, 51590), (442, 51647),

Gene: Kamiyu\_8 Start: 5408, Stop: 4863, Start Num: 191

Candidate Starts for Kamiyu\_8:

(Start: 156 @5480 has 7 MA's), (Start: 191 @5408 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: KappaFarmDelta\_74 Start: 46258, Stop: 46848, Start Num: 210

Candidate Starts for KappaFarmDelta\_74:

(Start: 210 @46258 has 38 MA's), (321, 46480), (325, 46492), (328, 46498), (344, 46543), (351, 46561), (356, 46579), (357, 46582), (368, 46621), (369, 46624), (410, 46750),

Gene: KarasumaRum\_8 Start: 6203, Stop: 5637, Start Num: 192

Candidate Starts for KarasumaRum\_8:

(29, 6839), (32, 6767), (38, 6701), (136, 6317), (164, 6263), (169, 6257), (183, 6227), (Start: 192 @6203 has 60 MA's), (Start: 280 @6044 has 4 MA's), (319, 5966), (337, 5924), (343, 5900), (352, 5873), (374, 5798), (375, 5795), (428, 5687), (432, 5681), (442, 5660), (446, 5648),

Gene: Kareem\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Kareem\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Kasen3\_51 Start: 36900, Stop: 37490, Start Num: 228

Candidate Starts for Kasen3\_51:

(4, 36228), (5, 36231), (47, 36522), (68, 36651), (91, 36723), (149, 36846), (200, 36867), (203, 36873), (Start: 228 @36900 has 68 MA's), (248, 36948), (288, 37044), (302, 37071), (316, 37092), (318, 37098), (325, 37122), (356, 37209), (366, 37239), (374, 37272), (377, 37281), (391, 37320), (398, 37359), (410, 37386), (445, 37455),

Gene: Katniss\_6 Start: 3865, Stop: 3365, Start Num: 227

Candidate Starts for Katniss\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: KayaCho\_5 Start: 4722, Stop: 4144, Start Num: 192

Candidate Starts for KayaCho\_5:

(Start: 192 @4722 has 60 MA's), (262, 4599), (269, 4590), (Start: 280 @4548 has 4 MA's), (300, 4506), (319, 4473), (337, 4431), (343, 4407), (352, 4380), (356, 4368), (357, 4365), (374, 4305), (378, 4293), (394, 4266), (403, 4239), (410, 4224), (412, 4221), (443, 4164),

Gene: Keitabear\_67 Start: 52547, Stop: 53185, Start Num: 195

Candidate Starts for Keitabear\_67:

(92, 52316), (99, 52340), (Start: 139 @52445 has 11 MA's), (Start: 165 @52493 has 1 MA's), (Start: 177 @52514 has 3 MA's), (Start: 195 @52547 has 56 MA's), (276, 52697), (320, 52787), (336, 52826), (339, 52841), (355, 52889), (357, 52895), (384, 52988), (415, 53069), (442, 53126),

Gene: Keitherie\_6 Start: 3914, Stop: 3360, Start Num: 190

Candidate Starts for Keitherie\_6:

(Start: 190 @3914 has 256 MA's), (Start: 211 @3884 has 35 MA's), (Start: 220 @3869 has 3 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438, 3398),

Gene: Kelcole\_59 Start: 42119, Stop: 41556, Start Num: 211

Candidate Starts for Kelcole\_59:

(Start: 211 @42119 has 35 MA's), (279, 41975), (375, 41720), (378, 41711), (410, 41642), (443, 41579),

Gene: Kewpiedoll\_67 Start: 51909, Stop: 52547, Start Num: 195

Candidate Starts for Kewpiedoll\_67:

(92, 51678), (99, 51702), (Start: 139 @51807 has 11 MA's), (Start: 165 @51855 has 1 MA's), (Start: 177 @51876 has 3 MA's), (Start: 195 @51909 has 56 MA's), (239, 51984), (336, 52188), (339, 52203), (355, 52251), (384, 52350), (415, 52431), (442, 52488),

Gene: Kheth\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Kheth\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: Kikipoo\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Kikipoo\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Kimbrough\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Kimbrough\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: KimmyK\_64 Start: 47529, Stop: 48128, Start Num: 227

Candidate Starts for KimmyK\_64:

(Start: 227 @47529 has 33 MA's), (357, 47844), (362, 47859), (374, 47904), (394, 47961), (404, 47994), (408, 48003), (425, 48033), (434, 48045), (456, 48111),

Gene: Kinbote\_72 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for Kinbote\_72:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: KingTut\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for KingTut\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: KingVeVeVe\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for KingVeVeVe\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514),

Gene: KlimbOn\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for KlimbOn\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Kloppinator\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Kloppinator\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Knocker\_12 Start: 8689, Stop: 8117, Start Num: 188

Candidate Starts for Knocker\_12:

(28, 9412), (39, 9166), (48, 9124), (51, 9094), (65, 9013), (75, 8980), (82, 8956), (89, 8923), (90, 8920), (106, 8872), (115, 8842), (126, 8809), (130, 8800), (Start: 132 @8797 has 2 MA's), (138, 8788), (158, 8749), (Start: 163 @8740 has 1 MA's), (Start: 188 @8689 has 3 MA's), (Start: 192 @8680 has 60 MA's), (230, 8623), (262, 8572), (269, 8563), (Start: 280 @8521 has 4 MA's), (317, 8452), (337, 8404), (339, 8392), (347, 8371), (352, 8353), (354, 8347), (357, 8338), (374, 8278), (376, 8272), (410, 8197), (420, 8176), (432, 8161), (442, 8140),

Gene: Kronus\_7 Start: 6024, Stop: 5473, Start Num: 191

Candidate Starts for Kronus\_7:

(Start: 154 @6099 has 4 MA's), (Start: 163 @6081 has 1 MA's), (Start: 191 @6024 has 52 MA's), (Start: 252 @5943 has 1 MA's), (271, 5916), (Start: 280 @5877 has 4 MA's), (294, 5844), (304, 5832), (363, 5679), (374, 5637), (384, 5604), (403, 5571), (431, 5520), (443, 5493),

Gene: Kroos\_66 Start: 50537, Stop: 51172, Start Num: 195

Candidate Starts for Kroos\_66:

(Start: 195 @50537 has 56 MA's), (276, 50684), (320, 50774), (336, 50813), (354, 50873), (357, 50882), (384, 50975), (421, 51074),

Gene: Kwadwo\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Kwadwo\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Kwekel\_62 Start: 45669, Stop: 46295, Start Num: 195

Candidate Starts for Kwekel\_62:

(Start: 195 @45669 has 56 MA's), (Start: 228 @45726 has 68 MA's), (269, 45810), (306, 45882), (317, 45912), (351, 46011), (382, 46113), (404, 46173), (434, 46227), (441, 46242),

Gene: Kwksand96\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Kwksand96\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Kwobi\_69 Start: 51148, Stop: 51783, Start Num: 195

Candidate Starts for Kwobi\_69:

(Start: 195 @51148 has 56 MA's), (320, 51385), (336, 51424), (339, 51439), (350, 51469), (352, 51478), (355, 51487), (384, 51586), (404, 51646), (421, 51685),

Gene: Kyva\_56 Start: 42015, Stop: 41443, Start Num: 211

Candidate Starts for Kyva\_56:

(Start: 163 @42102 has 1 MA's), (Start: 211 @42015 has 35 MA's), (242, 41949), (302, 41811), (309, 41802), (317, 41784), (354, 41676), (362, 41652), (374, 41607), (378, 41595), (414, 41520), (431, 41490), (443, 41466),

Gene: Labeouficaum\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Labeouficaum\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Lambano\_6 Start: 5143, Stop: 4583, Start Num: 192

Candidate Starts for Lambano\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Lars\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Lars\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: LasagnaCat\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for LasagnaCat\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Lasso\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Lasso\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Laurie\_9 Start: 6475, Stop: 7050, Start Num: 192

Candidate Starts for Laurie\_9:

(Start: 192 @6475 has 60 MA's), (234, 6547), (245, 6574), (283, 6655), (288, 6664), (334, 6754), (335, 6757), (337, 6760), (348, 6796), (359, 6832), (362, 6841), (374, 6886), (375, 6889), (378, 6898), (404, 6955), (406, 6958), (409, 6964), (410, 6967), (432, 7003), (443, 7027), (446, 7036),

Gene: LeeLot\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for LeeLot\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Lego3393\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Lego3393\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Legolas\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Legolas\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: LeiMonet\_6 Start: 3860, Stop: 3360, Start Num: 227

Candidate Starts for LeiMonet\_6:

(Start: 190 @3914 has 256 MA's), (Start: 220 @3869 has 3 MA's), (Start: 227 @3860 has 33 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438, 3398),

Gene: LemonSlice\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for LemonSlice\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Lemuria\_53 Start: 39211, Stop: 39813, Start Num: 211

Candidate Starts for Lemuria\_53:

(127, 39169), (Start: 211 @39211 has 35 MA's), (257, 39277), (288, 39355), (318, 39409), (325, 39433), (347, 39493), (356, 39520), (366, 39550), (374, 39583), (377, 39592), (410, 39709),

Gene: Lennon\_68 Start: 52663, Stop: 53334, Start Num: 177

Candidate Starts for Lennon\_68:

(92, 52465), (99, 52489), (Start: 139 @52594 has 11 MA's), (Start: 165 @52642 has 1 MA's), (Start: 177 @52663 has 3 MA's), (Start: 195 @52696 has 56 MA's), (276, 52846), (320, 52936), (336, 52975), (339, 52990), (355, 53038), (357, 53044), (384, 53137), (415, 53218), (442, 53275),

Gene: Leonard\_64 Start: 49616, Stop: 50263, Start Num: 195

Candidate Starts for Leonard\_64:

(Start: 195 @49616 has 56 MA's), (237, 49694), (258, 49742), (269, 49757), (283, 49814), (289, 49826), (299, 49844), (317, 49886), (336, 49937), (356, 50003), (357, 50006), (379, 50072), (382, 50078), (410, 50150), (434, 50192), (442, 50213),

Gene: Lephleur\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Lephleur\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: LestyG\_8 Start: 5417, Stop: 4866, Start Num: 191

Candidate Starts for LestyG\_8:

(Start: 156 @5489 has 7 MA's), (Start: 191 @5417 has 52 MA's), (Start: 252 @5336 has 1 MA's), (271, 5309), (Start: 280 @5270 has 4 MA's), (294, 5237), (304, 5225), (363, 5072), (374, 5030), (384, 4997), (403, 4964), (431, 4913), (443, 4886),

Gene: Liefie\_50 Start: 37020, Stop: 37610, Start Num: 228

Candidate Starts for Liefie\_50:

(73, 36801), (74, 36804), (Start: 228 @37020 has 68 MA's), (248, 37068), (288, 37164), (302, 37191), (316, 37212), (318, 37218), (325, 37242), (356, 37329), (366, 37359), (374, 37392), (377, 37401), (391, 37440), (398, 37479), (410, 37506), (445, 37575),

Gene: Ligma\_6 Start: 4904, Stop: 4362, Start Num: 191

Candidate Starts for Ligma\_6:

(37, 5378), (67, 5207), (Start: 191 @4904 has 52 MA's), (Start: 227 @4850 has 33 MA's), (264, 4811), (317, 4697), (364, 4565), (374, 4526), (378, 4514), (379, 4511), (393, 4487), (403, 4460), (432, 4406), (443, 4382),

Gene: LilHam\_61 Start: 47760, Stop: 48395, Start Num: 197

Candidate Starts for LilHam\_61:

(111, 47580), (155, 47682), (Start: 197 @47760 has 5 MA's), (276, 47907), (320, 47997), (336, 48036), (339, 48051), (354, 48096), (357, 48105), (374, 48165), (384, 48198), (421, 48297),



Gene: LilHazelnut\_74 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for LilHazelnut\_74:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: LilMcDreamy\_8 Start: 6993, Stop: 6421, Start Num: 192

Candidate Starts for LilMcDreamy\_8:

(Start: 192 @6993 has 60 MA's), (Start: 250 @6897 has 1 MA's), (Start: 280 @6828 has 4 MA's), (319, 6750), (337, 6708), (339, 6696), (343, 6684), (352, 6657), (354, 6651), (378, 6570), (410, 6501), (432, 6465),

Gene: Lilbeanie\_66 Start: 45819, Stop: 46490, Start Num: 196

Candidate Starts for Lilbeanie\_66:

(175, 45774), (Start: 191 @45807 has 52 MA's), (Start: 196 @45819 has 1 MA's), (318, 46077), (324, 46098), (328, 46107), (355, 46188), (384, 46287), (392, 46317), (410, 46368), (440, 46422), (458, 46482),

Gene: LittleMunchkin\_7 Start: 6182, Stop: 5655, Start Num: 191

Candidate Starts for LittleMunchkin\_7:

(54, 6563), (67, 6491), (Start: 181 @6197 has 2 MA's), (Start: 191 @6182 has 52 MA's), (Start: 220 @6137 has 3 MA's), (224, 6131), (271, 6098), (282, 6056), (302, 6014), (317, 5993), (318, 5990), (343, 5921), (362, 5867), (364, 5861), (374, 5822), (379, 5807), (393, 5783), (403, 5756), (410, 5741),

Gene: LizLemon\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for LizLemon\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Llemily\_53 Start: 40994, Stop: 40416, Start Num: 211

Candidate Starts for Llemily\_53:

(94, 41237), (159, 41075), (Start: 211 @40994 has 35 MA's), (270, 40883), (309, 40778), (348, 40673), (362, 40628), (364, 40622), (374, 40583), (379, 40568), (404, 40514), (443, 40439),

Gene: Lolalove\_7 Start: 6249, Stop: 5677, Start Num: 188

Candidate Starts for Lolalove\_7:

(Start: 163 @6300 has 1 MA's), (Start: 170 @6291 has 4 MA's), (Start: 188 @6249 has 3 MA's), (Start: 192 @6240 has 60 MA's), (Start: 280 @6084 has 4 MA's), (283, 6072), (317, 6012), (334, 5970), (337, 5964), (339, 5952), (352, 5913), (356, 5901), (374, 5838), (384, 5805), (403, 5772), (404, 5769), (410, 5757), (412, 5754), (432, 5721), (442, 5700),

Gene: Lonelysoil\_52 Start: 41197, Stop: 40625, Start Num: 211

Candidate Starts for Lonelysoil\_52:

(174, 41257), (Start: 211 @41197 has 35 MA's), (242, 41131), (302, 40993), (309, 40984), (317, 40966), (354, 40858), (359, 40843), (362, 40834), (374, 40789), (378, 40777), (414, 40702), (431, 40672), (443, 40648),

Gene: Longacauda\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Longacauda\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Lopsy\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Lopsy\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: LostAndPhound\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for LostAndPhound\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: LouisV14\_53 Start: 39179, Stop: 39769, Start Num: 228

Candidate Starts for LouisV14\_53:

(4, 38507), (5, 38510), (47, 38801), (68, 38930), (91, 39002), (149, 39125), (200, 39146), (203, 39152), (Start: 228 @39179 has 68 MA's), (248, 39227), (288, 39323), (302, 39350), (316, 39371), (318, 39377), (325, 39401), (356, 39488), (366, 39518), (374, 39551), (377, 39560), (391, 39599), (398, 39638), (410, 39665), (445, 39734),

Gene: Love\_73 Start: 52438, Stop: 53076, Start Num: 195

Candidate Starts for Love\_73:

(Start: 195 @52438 has 56 MA's), (276, 52588), (320, 52678), (336, 52717), (339, 52732), (355, 52780), (357, 52786), (374, 52846), (384, 52879), (415, 52960), (442, 53017),

Gene: LuckyMarjie\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for LuckyMarjie\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Luke\_71 Start: 48119, Stop: 48811, Start Num: 139

Candidate Starts for Luke\_71:

(60, 47882), (Start: 139 @48119 has 11 MA's), (143, 48128), (167, 48170), (Start: 208 @48200 has 15 MA's), (249, 48281), (283, 48365), (296, 48389), (301, 48398), (318, 48428), (330, 48461), (352, 48527), (364, 48563), (379, 48617), (386, 48641), (388, 48644), (393, 48659), (403, 48686), (410, 48701), (415, 48710), (425, 48728), (436, 48743),

Gene: Lulumae\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Lulumae\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Lulwa\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Lulwa\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Lumine\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Lumine\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's),  
(Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Luna22\_67 Start: 48148, Stop: 48840, Start Num: 139

Candidate Starts for Luna22\_67:

(60, 47911), (Start: 139 @48148 has 11 MA's), (143, 48157), (167, 48199), (Start: 208 @48229 has 15 MA's), (249, 48310), (283, 48394), (296, 48418), (301, 48427), (318, 48457), (330, 48490), (352, 48556), (364, 48592), (379, 48646), (386, 48670), (388, 48673), (393, 48688), (403, 48715), (410, 48730), (415, 48739), (425, 48757), (436, 48772),

Gene: Lysidious\_76 Start: 47074, Stop: 47670, Start Num: 208

Candidate Starts for Lysidious\_76:

(121, 46966), (128, 46984), (153, 47026), (Start: 208 @47074 has 15 MA's), (321, 47299), (325, 47311), (328, 47317), (356, 47398), (357, 47401), (369, 47443), (410, 47569),

Gene: MOOREtheMARYer\_53 Start: 38622, Stop: 39209, Start Num: 228

Candidate Starts for MOOREtheMARYer\_53:

(30, 38118), (80, 38466), (91, 38505), (Start: 228 @38622 has 68 MA's), (248, 38670), (292, 38775), (317, 38817), (318, 38820), (374, 38994), (375, 38997), (377, 39003), (398, 39078), (410, 39105), (417, 39120),

Gene: MRabcd\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for MRabcd\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Mag7\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Mag7\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Magic8\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Magic8\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Magpie\_7 Start: 6237, Stop: 5677, Start Num: 192

Candidate Starts for Magpie\_7:

(124, 6369), (134, 6351), (Start: 163 @6297 has 1 MA's), (168, 6291), (183, 6261), (Start: 192 @6237 has 60 MA's), (Start: 280 @6081 has 4 MA's), (283, 6069), (317, 6012), (334, 5970), (337, 5964), (339, 5952), (343, 5940), (352, 5913), (384, 5805), (403, 5772), (404, 5769), (410, 5757), (412, 5754), (428, 5727), (432, 5721), (442, 5700),

Gene: Maih\_59 Start: 48773, Stop: 49363, Start Num: 212

Candidate Starts for Maih\_59:

(127, 48650), (Start: 212 @48773 has 10 MA's), (254, 48824), (267, 48848), (278, 48875), (285, 48899), (302, 48932), (317, 48959), (318, 48962), (328, 48992), (342, 49031), (347, 49046), (356, 49073), (357, 49076), (383, 49166), (389, 49181), (392, 49187), (410, 49235), (427, 49265), (444, 49301),

Gene: MakoManhole\_8 Start: 6372, Stop: 5821, Start Num: 191

Candidate Starts for MakoManhole\_8:

(152, 6432), (160, 6417), (162, 6411), (Start: 191 @6372 has 52 MA's), (Start: 220 @6327 has 3 MA's), (224, 6321), (Start: 280 @6234 has 4 MA's), (287, 6216), (300, 6192), (317, 6165), (318, 6162), (319, 6159), (354, 6060), (378, 5979), (410, 5907), (419, 5886), (446, 5832),

Gene: Malachai\_73 Start: 48471, Stop: 49061, Start Num: 210

Candidate Starts for Malachai\_73:

(72, 48171), (78, 48192), (Start: 210 @48471 has 38 MA's), (321, 48693), (325, 48705), (328, 48711), (344, 48756), (351, 48774), (356, 48792), (357, 48795), (368, 48834), (369, 48837), (410, 48963),

Gene: Maliketh\_49 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Maliketh\_49:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Mana\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Mana\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Manad\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Manad\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Marcie\_66 Start: 43018, Stop: 42455, Start Num: 211

Candidate Starts for Marcie\_66:

(Start: 211 @43018 has 35 MA's), (279, 42874), (375, 42619), (378, 42610), (410, 42541), (443, 42478),

Gene: Mariokart\_6 Start: 4909, Stop: 4358, Start Num: 191

Candidate Starts for Mariokart\_6:

(Start: 191 @4909 has 52 MA's), (243, 4828), (Start: 252 @4822 has 1 MA's), (264, 4804), (271, 4795), (317, 4693), (348, 4609), (362, 4564), (364, 4558), (374, 4519), (378, 4507), (379, 4504), (393, 4480), (403, 4453), (404, 4450), (443, 4378),

Gene: Marley1013\_8 Start: 6203, Stop: 5625, Start Num: 191

Candidate Starts for Marley1013\_8:

(Start: 156 @6275 has 7 MA's), (Start: 191 @6203 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Marmie\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Marmie\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Maru\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Maru\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Mashley\_52 Start: 41380, Stop: 40808, Start Num: 211

Candidate Starts for Mashley\_52:

(81, 41674), (83, 41665), (109, 41578), (123, 41530), (174, 41440), (Start: 211 @41380 has 35 MA's), (242, 41314), (302, 41176), (309, 41167), (317, 41149), (354, 41041), (359, 41026), (362, 41017), (374, 40972), (378, 40960), (414, 40885), (431, 40855), (443, 40831),

Gene: Maskar\_6 Start: 3765, Stop: 3361, Start Num: 280

Candidate Starts for Maskar\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: MasterPo\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for MasterPo\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (135, 6360), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: Matalotodo\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Matalotodo\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: McKinley\_69 Start: 51576, Stop: 52214, Start Num: 195

Candidate Starts for McKinley\_69:

(41, 51108), (55, 51195), (58, 51231), (Start: 139 @51474 has 11 MA's), (Start: 165 @51522 has 1 MA's), (Start: 177 @51543 has 3 MA's), (Start: 195 @51576 has 56 MA's), (276, 51726), (320, 51816), (336, 51855), (339, 51870), (355, 51918), (357, 51924), (384, 52017), (415, 52098), (442, 52155),

Gene: Mcshane\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Mcshane\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Mecca\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Mecca\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Megamind20\_7 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Megamind20\_7:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Megatron\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Megatron\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: MelBins\_67 Start: 50181, Stop: 50828, Start Num: 197

Candidate Starts for MelBins\_67:

(Start: 197 @50181 has 5 MA's), (237, 50259), (258, 50307), (269, 50322), (283, 50379), (289, 50391), (336, 50502), (356, 50568), (357, 50571), (379, 50637), (382, 50643), (410, 50715), (434, 50757), (442, 50778),

Gene: Melba\_74 Start: 45340, Stop: 45930, Start Num: 210

Candidate Starts for Melba\_74:

(72, 45037), (78, 45058), (Start: 210 @45340 has 38 MA's), (321, 45562), (325, 45574), (328, 45580), (356, 45661), (357, 45664), (369, 45706), (410, 45832),

Gene: Melc17\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Melc17\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Mellie\_72 Start: 45623, Stop: 46213, Start Num: 210

Candidate Starts for Mellie\_72:

(36, 45134), (49, 45209), (64, 45299), (Start: 210 @45623 has 38 MA's), (249, 45698), (321, 45845), (325, 45857), (328, 45863), (356, 45944), (369, 45989), (410, 46115), (446, 46187),

Gene: MelsMeow\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for MelsMeow\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: MenE\_38 Start: 22713, Stop: 23276, Start Num: 221

Candidate Starts for MenE\_38:

(Start: 221 @22713 has 9 MA's), (Start: 228 @22725 has 68 MA's), (236, 22743), (271, 22806), (Start: 280 @22848 has 4 MA's), (294, 22884), (296, 22887), (322, 22938), (328, 22953), (333, 22965), (343, 22998), (346, 23004), (372, 23094), (374, 23100), (378, 23112), (404, 23166),

Gene: Mercurio\_53 Start: 39622, Stop: 40209, Start Num: 228

Candidate Starts for Mercurio\_53:

(44, 39133), (Start: 205 @39583 has 1 MA's), (213, 39598), (Start: 228 @39622 has 68 MA's), (248, 39670), (251, 39676), (288, 39766), (318, 39820), (326, 39841), (356, 39928), (374, 39991), (377, 40000), (410, 40105), (445, 40174), (454, 40201),

Gene: Mesh1\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Mesh1\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: MichaelPhcott\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for MichaelPhcott\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Mikota\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Mikota\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: MiniBoss\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for MiniBoss\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: MintFen\_75 Start: 45842, Stop: 46432, Start Num: 210

Candidate Starts for MintFen\_75:

(72, 45569), (78, 45590), (Start: 210 @45842 has 38 MA's), (317, 46049), (321, 46064), (325, 46076), (328, 46082), (344, 46127), (351, 46145), (356, 46163), (357, 46166), (368, 46205), (369, 46208), (410, 46334), (446, 46406),

Gene: Mischief19\_67 Start: 58954, Stop: 59559, Start Num: 212

Candidate Starts for Mischief19\_67:

(150, 58867), (Start: 212 @58954 has 10 MA's), (Start: 228 @58978 has 68 MA's), (232, 58987), (269, 59062), (294, 59128), (319, 59176), (342, 59242), (343, 59245), (347, 59257), (364, 59308), (374, 59347), (392, 59398), (398, 59419), (410, 59446),

Gene: MissRona\_80 Start: 50047, Stop: 50631, Start Num: 210

Candidate Starts for MissRona\_80:

(1, 48946), (2, 48967), (6, 49162), (8, 49204), (12, 49222), (26, 49342), (36, 49609), (52, 49705), (Start: 210 @50047 has 38 MA's), (254, 50128), (255, 50131), (285, 50200), (317, 50251), (318, 50254), (319, 50257), (336, 50296), (341, 50317), (368, 50404), (380, 50443), (383, 50455), (388, 50464), (410, 50524), (425, 50551),

Gene: MitKao\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for MitKao\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Mithril\_7 Start: 6294, Stop: 5680, Start Num: 170

Candidate Starts for Mithril\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (343, 5943), (356, 5904), (374, 5841), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: MmasiCarm\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for MmasiCarm\_8:

(Start: 154 @5489 has 4 MA's), (Start: 163 @5471 has 1 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: MoontowerMania\_68 Start: 52546, Stop: 53184, Start Num: 195

Candidate Starts for MoontowerMania\_68:

(Start: 195 @52546 has 56 MA's), (276, 52696), (320, 52786), (336, 52825), (339, 52840), (355, 52888), (357, 52894), (374, 52954), (384, 52987), (415, 53068), (442, 53125),

Gene: Morgushi\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Morgushi\_6:

(Start: 190 @3916 has 256 MA's), (Start: 211 @3886 has 35 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: MorillMayhem\_54 Start: 41725, Stop: 41153, Start Num: 211

Candidate Starts for MorillMayhem\_54:

(43, 42211), (76, 42040), (174, 41785), (Start: 211 @41725 has 35 MA's), (242, 41659), (302, 41521), (309, 41512), (317, 41494), (354, 41386), (359, 41371), (362, 41362), (374, 41317), (378, 41305), (414, 41230), (431, 41200), (443, 41176),

Gene: Mortcellus\_7 Start: 6051, Stop: 5473, Start Num: 191

Candidate Starts for Mortcellus\_7:

(Start: 156 @6123 has 7 MA's), (Start: 191 @6051 has 52 MA's), (Start: 252 @5943 has 1 MA's), (271, 5916), (Start: 280 @5877 has 4 MA's), (294, 5844), (304, 5832), (363, 5679), (374, 5637), (384, 5604), (403, 5571), (431, 5520), (443, 5493),

Gene: Morty\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Morty\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Morty007\_8 Start: 6203, Stop: 5625, Start Num: 191

Candidate Starts for Morty007\_8:

(Start: 156 @6275 has 7 MA's), (Start: 191 @6203 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Mosaic\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Mosaic\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: MossRose\_8 Start: 6372, Stop: 5821, Start Num: 191

Candidate Starts for MossRose\_8:

(152, 6432), (160, 6417), (162, 6411), (Start: 191 @6372 has 52 MA's), (Start: 220 @6327 has 3 MA's), (224, 6321), (Start: 280 @6234 has 4 MA's), (287, 6216), (300, 6192), (317, 6165), (318, 6162), (319, 6159), (354, 6060), (378, 5979), (410, 5907), (419, 5886), (446, 5832),

Gene: Mowgli\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Mowgli\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: MrPhizzler\_6 Start: 3914, Stop: 3360, Start Num: 190

Candidate Starts for MrPhizzler\_6:

(Start: 190 @3914 has 256 MA's), (Start: 220 @3869 has 3 MA's), (Start: 227 @3860 has 33 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438,



3398),

Gene: Mudslide\_7 Start: 6237, Stop: 5677, Start Num: 192

Candidate Starts for Mudslide\_7:

(131, 6357), (133, 6354), (Start: 192 @6237 has 60 MA's), (Start: 280 @6081 has 4 MA's), (283, 6069), (288, 6060), (317, 6012), (337, 5964), (339, 5952), (343, 5940), (352, 5913), (356, 5901), (384, 5805), (403, 5772), (410, 5757), (412, 5754), (432, 5721), (442, 5700),

Gene: Mulan\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Mulan\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Murdoc\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Murdoc\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Murp\_73 Start: 48722, Stop: 49312, Start Num: 210

Candidate Starts for Murp\_73:

(36, 48254), (64, 48419), (Start: 210 @48722 has 38 MA's), (321, 48944), (325, 48956), (328, 48962), (344, 49007), (351, 49025), (356, 49043), (357, 49046), (369, 49088), (410, 49214),

Gene: Mutante\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Mutante\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Mutzi\_62 Start: 48367, Stop: 48966, Start Num: 227

Candidate Starts for Mutzi\_62:

(Start: 227 @48367 has 33 MA's), (357, 48682), (362, 48697), (374, 48742), (394, 48799), (404, 48832), (408, 48841), (425, 48871), (434, 48883), (447, 48919), (456, 48949),

Gene: Mysterious\_8 Start: 6489, Stop: 5926, Start Num: 192

Candidate Starts for Mysterious\_8:

(Start: 192 @6489 has 60 MA's), (230, 6432), (Start: 280 @6333 has 4 MA's), (319, 6255), (337, 6213), (343, 6189), (352, 6162), (356, 6150), (374, 6087), (378, 6075), (394, 6048), (428, 5976), (432, 5970), (442, 5949),

Gene: NHagos\_6 Start: 4853, Stop: 4311, Start Num: 191

Candidate Starts for NHagos\_6:

(Start: 191 @4853 has 52 MA's), (224, 4802), (269, 4754), (319, 4643), (350, 4559), (352, 4550), (354, 4544), (362, 4520), (374, 4475), (379, 4460), (410, 4391),

Gene: Nacho\_006 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Nacho\_006:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Namago\_54 Start: 41139, Stop: 40564, Start Num: 202

Candidate Starts for Namago\_54:

(Start: 202 @41139 has 4 MA's), (242, 41070), (302, 40932), (309, 40923), (317, 40905), (354, 40797), (359, 40782), (362, 40773), (374, 40728), (378, 40716), (414, 40641), (431, 40611), (443, 40587),

Gene: Nanao\_6 Start: 5152, Stop: 4583, Start Num: 188

Candidate Starts for Nanao\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Nangang\_8 Start: 6203, Stop: 5640, Start Num: 192

Candidate Starts for Nangang\_8:

(Start: 192 @6203 has 60 MA's), (230, 6146), (Start: 280 @6047 has 4 MA's), (319, 5969), (337, 5927), (343, 5903), (356, 5864), (374, 5801), (375, 5798), (378, 5789), (394, 5762), (428, 5690), (432, 5684), (442, 5663), (446, 5651),

Gene: Natkenzie\_66 Start: 50003, Stop: 50650, Start Num: 195

Candidate Starts for Natkenzie\_66:

(115, 49841), (119, 49847), (122, 49865), (Start: 170 @49952 has 4 MA's), (Start: 195 @50003 has 56 MA's), (237, 50081), (256, 50123), (258, 50129), (289, 50195), (303, 50213), (336, 50297), (339, 50312), (360, 50372), (362, 50381), (382, 50447), (384, 50456), (417, 50534), (434, 50561), (460, 50639),

Gene: Nehemiah\_7 Start: 6489, Stop: 5926, Start Num: 192

Candidate Starts for Nehemiah\_7:

(Start: 192 @6489 has 60 MA's), (230, 6432), (Start: 280 @6333 has 4 MA's), (319, 6255), (337, 6213), (343, 6189), (352, 6162), (356, 6150), (374, 6087), (378, 6075), (394, 6048), (428, 5976), (432, 5970), (442, 5949),

Gene: Neos5\_8 Start: 6203, Stop: 5625, Start Num: 191

Candidate Starts for Neos5\_8:

(Start: 156 @6275 has 7 MA's), (Start: 191 @6203 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Newman\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Newman\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Nicole21\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Nicole21\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Nigel\_5 Start: 4707, Stop: 4126, Start Num: 192

Candidate Starts for Nigel\_5:

(Start: 191 @4710 has 52 MA's), (Start: 192 @4707 has 60 MA's), (Start: 250 @4602 has 1 MA's), (Start: 252 @4599 has 1 MA's), (269, 4575), (Start: 280 @4533 has 4 MA's), (283, 4521), (319, 4455), (337, 4413), (339, 4401), (374, 4287), (410, 4206), (412, 4203), (432, 4170), (442, 4149),

Gene: Nike\_54 Start: 41918, Stop: 41343, Start Num: 211

Candidate Starts for Nike\_54:

(Start: 163 @42005 has 1 MA's), (Start: 211 @41918 has 35 MA's), (242, 41852), (302, 41711), (309, 41702), (317, 41684), (354, 41576), (359, 41561), (362, 41552), (374, 41507), (378, 41495), (414, 41420), (431, 41390), (443, 41366),

Gene: Nordenberg\_67 Start: 50558, Stop: 51196, Start Num: 195

Candidate Starts for Nordenberg\_67:

(Start: 195 @50558 has 56 MA's), (276, 50708), (320, 50798), (336, 50837), (339, 50852), (355, 50900), (357, 50906), (384, 50999), (415, 51080), (442, 51137),

Gene: Nozo\_8 Start: 6176, Stop: 5625, Start Num: 191

Candidate Starts for Nozo\_8:

(Start: 154 @6251 has 4 MA's), (Start: 163 @6233 has 1 MA's), (Start: 191 @6176 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Nubi\_63 Start: 46738, Stop: 47337, Start Num: 227

Candidate Starts for Nubi\_63:

(Start: 227 @46738 has 33 MA's), (357, 47053), (362, 47068), (374, 47113), (394, 47170), (404, 47203), (408, 47212), (425, 47242), (434, 47254), (456, 47320),

Gene: Numberten\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Numberten\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Nyala\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Nyala\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: OBUpride\_73 Start: 48289, Stop: 48900, Start Num: 208

Candidate Starts for OBUpride\_73:

(60, 47971), (Start: 139 @48208 has 11 MA's), (143, 48217), (167, 48259), (Start: 208 @48289 has 15 MA's), (249, 48370), (283, 48454), (296, 48478), (301, 48487), (318, 48517), (330, 48550), (352, 48616), (364, 48652), (379, 48706), (386, 48730), (388, 48733), (393, 48748), (403, 48775), (410, 48790), (415, 48799), (425, 48817), (436, 48832),

Gene: OSmaximus\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for OSmaximus\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Obliviate\_74 Start: 45891, Stop: 46481, Start Num: 210

Candidate Starts for Obliviate\_74:

(Start: 210 @45891 has 38 MA's), (321, 46113), (325, 46125), (328, 46131), (356, 46212), (357, 46215), (369, 46257), (410, 46383),

Gene: Obutu\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for Obutu\_8:

(Start: 156 @5486 has 7 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384,

4994), (403, 4961), (431, 4910), (443, 4883),

Gene: OctaviousRex\_50 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for OctaviousRex\_50:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Olak\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Olak\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511),

Gene: Olga\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Olga\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Oline\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Oline\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Olive\_6 Start: 3885, Stop: 3361, Start Num: 211

Candidate Starts for Olive\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: OliverWalter\_6 Start: 3914, Stop: 3360, Start Num: 190

Candidate Starts for OliverWalter\_6:

(Start: 190 @3914 has 256 MA's), (Start: 211 @3884 has 35 MA's), (Start: 220 @3869 has 3 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438, 3398),

Gene: Omniscient\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Omniscient\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: OneinaGillian\_61 Start: 42021, Stop: 41458, Start Num: 211

Candidate Starts for OneinaGillian\_61:

(Start: 211 @42021 has 35 MA's), (279, 41877), (375, 41622), (378, 41613), (410, 41544), (443, 41481),

Gene: Oosterbaan\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Oosterbaan\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Opia\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Opia\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: OrangeOswald\_8 Start: 5489, Stop: 4863, Start Num: 154

Candidate Starts for OrangeOswald\_8:

(Start: 154 @5489 has 4 MA's), (Start: 163 @5471 has 1 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Orfeu\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Orfeu\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Orion\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Orion\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Orwigg\_7 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Orwigg\_7:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: PCoral7\_74 Start: 46525, Stop: 47115, Start Num: 210

Candidate Starts for PCoral7\_74:

(Start: 210 @46525 has 38 MA's), (296, 46702), (318, 46735), (321, 46747), (325, 46759), (328, 46765), (344, 46810), (369, 46891), (410, 47017), (434, 47056),

Gene: PG1\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for PG1\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Pace1224\_50 Start: 37494, Stop: 38078, Start Num: 228

Candidate Starts for Pace1224\_50:

(Start: 228 @37494 has 68 MA's), (257, 37560), (307, 37668), (317, 37689), (318, 37692), (319, 37695), (325, 37716), (355, 37797), (366, 37830), (374, 37863), (377, 37872), (398, 37947), (410, 37974),

Gene: Pacifista\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Pacifista\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438,

3399),

Gene: Paito\_53 Start: 37596, Stop: 38186, Start Num: 228

Candidate Starts for Paito\_53:

(34, 37146), (47, 37230), (91, 37431), (203, 37569), (Start: 228 @37596 has 68 MA's), (288, 37740), (316, 37788), (318, 37794), (347, 37878), (356, 37905), (374, 37968), (377, 37977), (398, 38055), (410, 38082), (445, 38151),

Gene: Paries\_70 Start: 52128, Stop: 52766, Start Num: 195

Candidate Starts for Paries\_70:

(Start: 195 @52128 has 56 MA's), (276, 52278), (320, 52368), (336, 52407), (339, 52422), (355, 52470), (357, 52476), (384, 52569), (415, 52650), (442, 52707),

Gene: Peeb\_50 Start: 36905, Stop: 37495, Start Num: 228

Candidate Starts for Peeb\_50:

(4, 36233), (5, 36236), (47, 36527), (68, 36656), (91, 36728), (149, 36851), (200, 36872), (203, 36878), (Start: 228 @36905 has 68 MA's), (248, 36953), (288, 37049), (302, 37076), (316, 37097), (318, 37103), (325, 37127), (356, 37214), (366, 37244), (374, 37277), (377, 37286), (391, 37325), (398, 37364), (410, 37391), (445, 37460),

Gene: PenguinLover67\_10 Start: 7104, Stop: 6535, Start Num: 190

Candidate Starts for PenguinLover67\_10:

(167, 7155), (187, 7113), (Start: 190 @7104 has 256 MA's), (278, 6942), (Start: 280 @6936 has 4 MA's), (317, 6870), (319, 6864), (337, 6822), (339, 6810), (343, 6798), (357, 6756), (374, 6696), (375, 6693), (403, 6630), (406, 6624), (410, 6615), (441, 6564), (446, 6546),

Gene: Pepe25\_60 Start: 41552, Stop: 40989, Start Num: 211

Candidate Starts for Pepe25\_60:

(Start: 211 @41552 has 35 MA's), (301, 41360), (354, 41225), (357, 41216), (374, 41156), (375, 41153), (378, 41144), (410, 41075), (443, 41012),

Gene: Periodt\_51 Start: 37067, Stop: 37657, Start Num: 228

Candidate Starts for Periodt\_51:

(Start: 228 @37067 has 68 MA's), (248, 37115), (288, 37211), (316, 37259), (318, 37265), (325, 37289), (356, 37376), (366, 37406), (374, 37439), (377, 37448), (391, 37487), (398, 37526), (410, 37553), (445, 37622),

Gene: Petra\_80 Start: 48158, Stop: 48742, Start Num: 210

Candidate Starts for Petra\_80:

(Start: 210 @48158 has 38 MA's), (246, 48224), (254, 48239), (285, 48311), (318, 48365), (319, 48368), (336, 48407), (341, 48428), (351, 48455), (368, 48515), (380, 48554), (383, 48566), (388, 48575), (410, 48635),

Gene: Phabia\_53 Start: 41409, Stop: 40831, Start Num: 211

Candidate Starts for Phabia\_53:

(94, 41652), (159, 41490), (Start: 211 @41409 has 35 MA's), (270, 41298), (309, 41193), (348, 41088), (362, 41043), (364, 41037), (374, 40998), (379, 40983), (404, 40929), (443, 40854),

Gene: Phaedrus\_7 Start: 5222, Stop: 4752, Start Num: 252

Candidate Starts for Phaedrus\_7:

(Start: 156 @5402 has 7 MA's), (Start: 191 @5330 has 52 MA's), (Start: 252 @5222 has 1 MA's), (271, 5195), (Start: 280 @5156 has 4 MA's), (294, 5123), (304, 5111), (363, 4958), (374, 4916), (384, 4883), (403, 4850), (431, 4799), (443, 4772),

Gene: Phamished\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Phamished\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Phantasmagoria\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Phantasmagoria\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: Phareon\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Phareon\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: PhatCats2014\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for PhatCats2014\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: PhatLouie\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for PhatLouie\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Phauci\_56 Start: 46468, Stop: 47115, Start Num: 195

Candidate Starts for Phauci\_56:

(Start: 195 @46468 has 56 MA's), (258, 46594), (269, 46609), (283, 46666), (289, 46678), (295, 46690), (299, 46696), (317, 46738), (323, 46759), (336, 46789), (356, 46855), (357, 46858), (379, 46924), (382, 46930), (410, 47002), (434, 47044), (442, 47065),

Gene: Phayeta\_8 Start: 5289, Stop: 4711, Start Num: 191

Candidate Starts for Phayeta\_8:

(Start: 156 @5361 has 7 MA's), (Start: 191 @5289 has 52 MA's), (Start: 252 @5181 has 1 MA's), (271, 5154), (Start: 280 @5115 has 4 MA's), (294, 5082), (304, 5070), (363, 4917), (374, 4875), (384, 4842), (403, 4809), (431, 4758), (443, 4731),

Gene: Phelemich\_8 Start: 6492, Stop: 5929, Start Num: 192

Candidate Starts for Phelemich\_8:

(Start: 192 @6492 has 60 MA's), (Start: 227 @6441 has 33 MA's), (Start: 280 @6336 has 4 MA's), (319, 6258), (337, 6216), (343, 6192), (352, 6165), (356, 6153), (374, 6090), (378, 6078), (394, 6051), (420, 5988), (446, 5940),

Gene: PhenghisKhan\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for PhenghisKhan\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's),  
(Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Pherdinand\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Pherdinand\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's),  
(319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Phergie\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Phergie\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's),  
(Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Philly\_7 Start: 5375, Stop: 4752, Start Num: 156

Candidate Starts for Philly\_7:

(Start: 156 @5375 has 7 MA's), (Start: 191 @5303 has 52 MA's), (Start: 252 @5222 has 1 MA's),  
(271, 5195), (Start: 280 @5156 has 4 MA's), (294, 5123), (304, 5111), (363, 4958), (374, 4916), (384,  
4883), (403, 4850), (431, 4799), (443, 4772),

Gene: Phinally\_64 Start: 49613, Stop: 50260, Start Num: 195

Candidate Starts for Phinally\_64:

(Start: 195 @49613 has 56 MA's), (237, 49691), (258, 49739), (269, 49754), (283, 49811), (289,  
49823), (299, 49841), (317, 49883), (336, 49934), (356, 50000), (357, 50003), (379, 50069), (382,  
50075), (410, 50147), (434, 50189), (442, 50210),

Gene: Phinky\_62 Start: 43645, Stop: 43067, Start Num: 217

Candidate Starts for Phinky\_62:

(72, 43999), (77, 43981), (80, 43963), (85, 43945), (171, 43729), (Start: 217 @43645 has 1 MA's),  
(Start: 227 @43630 has 33 MA's), (Start: 240 @43594 has 1 MA's), (288, 43486), (321, 43420), (334,  
43393), (357, 43321), (375, 43255), (410, 43177), (443, 43114), (446, 43105),

Gene: Phipps\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Phipps\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's),  
(Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Phish\_50 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Phish\_50:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203,  
36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106),  
(318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334),  
(398, 37373), (410, 37400), (445, 37469),

Gene: Phleuron\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Phleuron\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's),  
(Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Phlop\_61 Start: 47095, Stop: 47694, Start Num: 227

Candidate Starts for Phlop\_61:

(Start: 227 @47095 has 33 MA's), (357, 47410), (362, 47425), (374, 47470), (394, 47527), (404,  
47560), (408, 47569), (425, 47599), (434, 47611), (447, 47647), (456, 47677),



Gene: Phlyer\_8 Start: 6242, Stop: 5625, Start Num: 156

Candidate Starts for Phlyer\_8:

(Start: 156 @6242 has 7 MA's), (Start: 191 @6170 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Phonegingi\_37 Start: 22596, Stop: 23168, Start Num: 221

Candidate Starts for Phonegingi\_37:

(136, 22434), (Start: 221 @22596 has 9 MA's), (236, 22626), (Start: 280 @22740 has 4 MA's), (290, 22767), (301, 22788), (322, 22830), (328, 22845), (333, 22857), (347, 22899), (372, 22986), (374, 22992), (378, 23004), (404, 23058),

Gene: PhrankReynolds\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for PhrankReynolds\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Phreak\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Phreak\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: PhrodoBaggins\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for PhrodoBaggins\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: PhrostedPhlake\_81 Start: 48308, Stop: 48892, Start Num: 210

Candidate Starts for PhrostedPhlake\_81:

(36, 47840), (49, 47915), (64, 48005), (Start: 210 @48308 has 38 MA's), (254, 48389), (285, 48461), (294, 48479), (317, 48512), (318, 48515), (319, 48518), (336, 48557), (341, 48578), (368, 48665), (383, 48716), (388, 48725), (410, 48785),

Gene: Phunky\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Phunky\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Pickles13\_36 Start: 22875, Stop: 23438, Start Num: 221

Candidate Starts for Pickles13\_36:

(136, 22707), (Start: 221 @22875 has 9 MA's), (Start: 228 @22887 has 68 MA's), (236, 22905), (271, 22968), (294, 23046), (296, 23049), (302, 23061), (328, 23115), (333, 23127), (343, 23160), (346, 23166), (372, 23256), (374, 23262), (378, 23274), (433, 23388),

Gene: Piglet\_006 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Piglet\_006:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Pine5\_08 Start: 5560, Stop: 4889, Start Num: 218

Candidate Starts for Pine5\_08:

(Start: 218 @5560 has 1 MA's), (308, 5353), (312, 5344), (318, 5323), (330, 5290), (339, 5263), (364, 5188), (396, 5059), (422, 4990), (437, 4969), (450, 4927),

Gene: PinheadLarry\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for PinheadLarry\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: PinkCoffee\_65 Start: 47101, Stop: 47700, Start Num: 227

Candidate Starts for PinkCoffee\_65:

(Start: 227 @47101 has 33 MA's), (357, 47416), (362, 47431), (374, 47476), (394, 47533), (404, 47566), (408, 47575), (425, 47605), (434, 47617), (447, 47653), (456, 47683),

Gene: PinkYoshi\_51 Start: 36905, Stop: 37495, Start Num: 228

Candidate Starts for PinkYoshi\_51:

(4, 36233), (5, 36236), (47, 36527), (68, 36656), (91, 36728), (149, 36851), (200, 36872), (203, 36878), (Start: 228 @36905 has 68 MA's), (248, 36953), (288, 37049), (302, 37076), (316, 37097), (318, 37103), (325, 37127), (356, 37214), (366, 37244), (374, 37277), (377, 37286), (391, 37325), (398, 37364), (410, 37391), (445, 37460),

Gene: Pinkman\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Pinkman\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Pinnie\_50 Start: 38254, Stop: 38841, Start Num: 228

Candidate Starts for Pinnie\_50:

(100, 38170), (116, 38215), (Start: 228 @38254 has 68 MA's), (248, 38302), (292, 38407), (317, 38449), (318, 38452), (374, 38626), (375, 38629), (377, 38635), (398, 38710), (410, 38737), (417, 38752),

Gene: Pipefish\_8 Start: 6380, Stop: 5730, Start Num: 156

Candidate Starts for Pipefish\_8:

(Start: 156 @6380 has 7 MA's), (Start: 191 @6308 has 52 MA's), (Start: 252 @6200 has 1 MA's), (271, 6173), (Start: 280 @6134 has 4 MA's), (294, 6101), (304, 6089), (363, 5936), (374, 5894), (384, 5861), (403, 5828), (431, 5777), (443, 5750),

Gene: Pipp\_79 Start: 47870, Stop: 48448, Start Num: 205

Candidate Starts for Pipp\_79:

(Start: 205 @47870 has 1 MA's), (Start: 207 @47873 has 1 MA's), (254, 47954), (285, 48026), (294, 48044), (317, 48077), (318, 48080), (319, 48083), (336, 48122), (341, 48143), (368, 48230), (383, 48281), (388, 48290), (410, 48350),

Gene: Pipsqueak\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Pipsqueak\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Placalicious\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Placalicious\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Plagueis\_51 Start: 36734, Stop: 37324, Start Num: 228

Candidate Starts for Plagueis\_51:

(4, 36062), (5, 36065), (47, 36356), (68, 36485), (91, 36557), (149, 36680), (200, 36701), (203, 36707), (Start: 228 @36734 has 68 MA's), (248, 36782), (288, 36878), (302, 36905), (316, 36926), (318, 36932), (325, 36956), (356, 37043), (366, 37073), (374, 37106), (377, 37115), (391, 37154), (398, 37193), (410, 37220), (445, 37289),

Gene: Plmatters\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Plmatters\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Podrick\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Podrick\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Pops\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Pops\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Portcullis\_65 Start: 47219, Stop: 47821, Start Num: 227

Candidate Starts for Portcullis\_65:

(Start: 227 @47219 has 33 MA's), (331, 47459), (357, 47537), (362, 47552), (374, 47597), (381, 47618), (404, 47687), (406, 47690), (408, 47696), (425, 47726), (434, 47738), (447, 47774), (456, 47804),

Gene: Poster\_6 Start: 5152, Stop: 4583, Start Num: 188

Candidate Starts for Poster\_6:

(Start: 188 @5152 has 3 MA's), (Start: 192 @5143 has 60 MA's), (Start: 280 @4987 has 4 MA's), (283, 4975), (317, 4918), (334, 4876), (337, 4870), (339, 4858), (352, 4819), (374, 4744), (384, 4711), (403, 4678), (404, 4675), (410, 4663), (412, 4660), (442, 4606),

Gene: Potter\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Potter\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Prickles\_6 Start: 3879, Stop: 3370, Start Num: 220

Candidate Starts for Prickles\_6:

(Start: 190 @3924 has 256 MA's), (Start: 220 @3879 has 3 MA's), (Start: 280 @3774 has 4 MA's), (319, 3699), (334, 3663), (337, 3657), (375, 3528), (378, 3519), (438, 3408),

Gene: Prince\_7 Start: 6243, Stop: 5680, Start Num: 192

Candidate Starts for Prince\_7:

(Start: 163 @6303 has 1 MA's), (168, 6297), (183, 6267), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (352, 5916),

(356, 5904), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: PrincePatrick\_76 Start: 45859, Stop: 46449, Start Num: 210

Candidate Starts for PrincePatrick\_76:

(Start: 210 @45859 has 38 MA's), (296, 46036), (318, 46069), (321, 46081), (325, 46093), (328, 46099), (344, 46144), (410, 46351), (434, 46390),

Gene: ProfessorX\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for ProfessorX\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Puhltonio\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Puhltonio\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: PullumCavea\_62 Start: 47272, Stop: 47871, Start Num: 227

Candidate Starts for PullumCavea\_62:

(7, 46330), (9, 46336), (10, 46342), (11, 46348), (13, 46354), (16, 46378), (27, 46501), (113, 47044), (Start: 227 @47272 has 33 MA's), (362, 47602), (374, 47647), (394, 47704), (404, 47737), (408, 47746), (425, 47776), (434, 47788), (456, 47854),

Gene: Pupper\_178 Start: 130307, Stop: 130879, Start Num: 189

Candidate Starts for Pupper\_178:

(35, 129794), (115, 130151), (117, 130154), (Start: 189 @130307 has 4 MA's), (222, 130361), (Start: 228 @130364 has 68 MA's), (279, 130439), (284, 130457), (334, 130547), (357, 130619), (374, 130679), (449, 130844), (451, 130850),

Gene: Quammi\_51 Start: 41109, Stop: 40531, Start Num: 211

Candidate Starts for Quammi\_51:

(94, 41352), (159, 41190), (Start: 211 @41109 has 35 MA's), (270, 40998), (309, 40893), (348, 40788), (362, 40743), (364, 40737), (374, 40698), (379, 40683), (404, 40629), (443, 40554),

Gene: QueenBeane\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for QueenBeane\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: QueenPie\_7 Start: 6040, Stop: 5471, Start Num: 188

Candidate Starts for QueenPie\_7:

(Start: 188 @6040 has 3 MA's), (Start: 192 @6031 has 60 MA's), (Start: 280 @5875 has 4 MA's), (283, 5863), (334, 5764), (337, 5758), (339, 5746), (343, 5734), (352, 5707), (374, 5632), (384, 5599), (403, 5566), (404, 5563), (410, 5551), (412, 5548), (442, 5494),

Gene: Quesadilla\_9 Start: 6920, Stop: 6357, Start Num: 190

Candidate Starts for Quesadilla\_9:

(Start: 190 @6920 has 256 MA's), (253, 6821), (262, 6809), (Start: 280 @6758 has 4 MA's), (317, 6692), (319, 6686), (337, 6644), (339, 6632), (357, 6578), (374, 6518), (375, 6515), (403, 6452), (406, 6446), (442, 6380),

Gene: Quisquilliae\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Quisquilliae\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Qyrzula\_9 Start: 6447, Stop: 7139, Start Num: 132

Candidate Starts for Qyrzula\_9:

(123, 6429), (Start: 132 @6447 has 2 MA's), (135, 6450), (144, 6468), (145, 6471), (Start: 192 @6564 has 60 MA's), (Start: 228 @6621 has 68 MA's), (Start: 233 @6633 has 2 MA's), (Start: 240 @6651 has 1 MA's), (283, 6744), (288, 6753), (334, 6843), (335, 6846), (337, 6849), (348, 6885), (359, 6921), (362, 6930), (374, 6975), (375, 6978), (378, 6987), (406, 7047), (409, 7053), (410, 7056), (432, 7092), (443, 7116), (446, 7125),

Gene: Rabbs\_53 Start: 37053, Stop: 37640, Start Num: 198

Candidate Starts for Rabbs\_53:

(14, 36564), (19, 36606), (24, 36642), (91, 36975), (Start: 198 @37053 has 4 MA's), (288, 37197), (316, 37245), (318, 37251), (325, 37275), (356, 37362), (374, 37425), (377, 37434), (398, 37509), (410, 37536),

Gene: RagingRooster\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for RagingRooster\_8:

(Start: 156 @5486 has 7 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: RainyPolka\_58 Start: 48033, Stop: 48623, Start Num: 212

Candidate Starts for RainyPolka\_58:

(Start: 212 @48033 has 10 MA's), (254, 48084), (267, 48108), (278, 48135), (285, 48159), (296, 48180), (302, 48192), (318, 48222), (328, 48252), (342, 48291), (347, 48306), (351, 48315), (357, 48336), (374, 48396), (389, 48441), (392, 48447), (410, 48495), (427, 48525), (444, 48561),

Gene: RawrgerThat\_7 Start: 6237, Stop: 5677, Start Num: 192

Candidate Starts for RawrgerThat\_7:

(Start: 163 @6297 has 1 MA's), (Start: 170 @6288 has 4 MA's), (Start: 188 @6246 has 3 MA's), (Start: 192 @6237 has 60 MA's), (Start: 280 @6081 has 4 MA's), (283, 6069), (317, 6012), (334, 5970), (337, 5964), (339, 5952), (343, 5940), (352, 5913), (384, 5805), (403, 5772), (404, 5769), (410, 5757), (412, 5754), (428, 5727), (432, 5721), (442, 5700),

Gene: RedMaple\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for RedMaple\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Rem711\_70 Start: 43454, Stop: 44074, Start Num: 218

Candidate Starts for Rem711\_70:

(Start: 218 @43454 has 1 MA's), (223, 43463), (225, 43466), (242, 43505), (265, 43544), (284, 43610), (293, 43628), (300, 43637), (321, 43679), (378, 43853), (410, 43922), (415, 43931), (443, 43985),

Gene: Remy19\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Remy19\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Renaissance\_51 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Renaissance\_51:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Reprobate\_8 Start: 6489, Stop: 5926, Start Num: 192

Candidate Starts for Reprobate\_8:

(Start: 192 @6489 has 60 MA's), (Start: 227 @6438 has 33 MA's), (Start: 280 @6333 has 4 MA's), (319, 6255), (337, 6213), (343, 6189), (352, 6162), (356, 6150), (374, 6087), (378, 6075), (394, 6048), (420, 5985), (446, 5937),

Gene: Rhinoforte\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for Rhinoforte\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (135, 6477), (142, 6489), (144, 6495), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (404, 7071), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Ribeye\_67 Start: 50020, Stop: 50655, Start Num: 195

Candidate Starts for Ribeye\_67:

(Start: 195 @50020 has 56 MA's), (320, 50257), (336, 50296), (339, 50311), (350, 50341), (352, 50350), (355, 50359), (415, 50539), (421, 50557),

Gene: Rich\_8 Start: 6218, Stop: 5652, Start Num: 192

Candidate Starts for Rich\_8:

(Start: 192 @6218 has 60 MA's), (230, 6161), (Start: 280 @6059 has 4 MA's), (317, 5987), (319, 5981), (321, 5972), (337, 5939), (343, 5915), (356, 5876), (374, 5813), (378, 5801), (394, 5774), (428, 5702), (432, 5696),

Gene: Ricotta\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Ricotta\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Riggan\_6 Start: 3922, Stop: 3368, Start Num: 190

Candidate Starts for Riggan\_6:

(Start: 190 @3922 has 256 MA's), (Start: 211 @3892 has 35 MA's), (Start: 220 @3877 has 3 MA's), (Start: 280 @3772 has 4 MA's), (319, 3697), (334, 3661), (337, 3655), (375, 3526), (378, 3517), (438, 3406),

Gene: Rimu\_6 Start: 3914, Stop: 3360, Start Num: 190

Candidate Starts for Rimu\_6:

(Start: 190 @3914 has 256 MA's), (Start: 220 @3869 has 3 MA's), (Start: 227 @3860 has 33 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438,

3398),

Gene: Rinkes\_11 Start: 8103, Stop: 7489, Start Num: 163

Candidate Starts for Rinkes\_11:

(33, 8601), (45, 8505), (46, 8502), (48, 8490), (56, 8439), (75, 8346), (82, 8322), (94, 8274), (95, 8271), (97, 8265), (106, 8235), (125, 8175), (126, 8172), (130, 8163), (138, 8151), (Start: 163 @8103 has 1 MA's), (Start: 188 @8064 has 3 MA's), (Start: 192 @8055 has 60 MA's), (230, 7998), (262, 7950), (269, 7941), (Start: 280 @7899 has 4 MA's), (321, 7809), (337, 7776), (339, 7764), (374, 7650), (381, 7629), (412, 7566), (420, 7548), (432, 7533), (442, 7512), (443, 7509),

Gene: Rita1961\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for Rita1961\_8:

(Start: 156 @5486 has 7 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: RiverRaider\_69 Start: 49606, Stop: 50229, Start Num: 195

Candidate Starts for RiverRaider\_69:

(Start: 195 @49606 has 56 MA's), (204, 49615), (276, 49756), (318, 49837), (320, 49846), (336, 49885), (339, 49900), (404, 50092),

Gene: RoadKill\_59 Start: 45201, Stop: 45827, Start Num: 195

Candidate Starts for RoadKill\_59:

(Start: 195 @45201 has 56 MA's), (269, 45342), (317, 45444), (351, 45543), (382, 45645), (404, 45705), (434, 45759), (441, 45774),

Gene: RobinRose\_63 Start: 42533, Stop: 41970, Start Num: 211

Candidate Starts for RobinRose\_63:

(Start: 211 @42533 has 35 MA's), (279, 42389), (339, 42251), (375, 42134), (378, 42125), (410, 42056), (443, 41993),

Gene: Robyn\_6 Start: 3920, Stop: 3366, Start Num: 190

Candidate Starts for Robyn\_6:

(Start: 190 @3920 has 256 MA's), (Start: 220 @3875 has 3 MA's), (Start: 227 @3866 has 33 MA's), (Start: 280 @3770 has 4 MA's), (319, 3695), (334, 3659), (337, 3653), (375, 3524), (378, 3515), (438, 3404),

Gene: Rofo\_69 Start: 51570, Stop: 52208, Start Num: 195

Candidate Starts for Rofo\_69:

(Start: 195 @51570 has 56 MA's), (276, 51720), (318, 51801), (320, 51810), (336, 51849), (339, 51864), (355, 51912), (384, 52011), (415, 52092), (442, 52149),

Gene: RogerDodger\_66 Start: 47394, Stop: 47993, Start Num: 227

Candidate Starts for RogerDodger\_66:

(7, 46452), (9, 46458), (10, 46464), (11, 46470), (13, 46476), (16, 46500), (27, 46623), (113, 47166), (Start: 227 @47394 has 33 MA's), (328, 47628), (362, 47724), (374, 47769), (394, 47826), (404, 47859), (408, 47868), (425, 47898), (434, 47910), (447, 47946), (456, 47976),

Gene: Roliet\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Roliet\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: RomaT\_8 Start: 6248, Stop: 5625, Start Num: 156

Candidate Starts for RomaT\_8:

(Start: 156 @6248 has 7 MA's), (Start: 191 @6176 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Romm\_63 Start: 42530, Stop: 41967, Start Num: 211

Candidate Starts for Romm\_63:

(Start: 211 @42530 has 35 MA's), (279, 42386), (339, 42248), (375, 42131), (378, 42122), (410, 42053), (443, 41990),

Gene: Roscoe\_7 Start: 4153, Stop: 3599, Start Num: 190

Candidate Starts for Roscoe\_7:

(Start: 190 @4153 has 256 MA's), (Start: 220 @4108 has 3 MA's), (Start: 227 @4099 has 33 MA's), (Start: 280 @4003 has 4 MA's), (319, 3928), (334, 3892), (337, 3886), (375, 3757), (378, 3748),

Gene: Rosebush\_9 Start: 6678, Stop: 7166, Start Num: 240

Candidate Starts for Rosebush\_9:

(123, 6456), (Start: 132 @6474 has 2 MA's), (135, 6477), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Rowlf\_50 Start: 41057, Stop: 40485, Start Num: 211

Candidate Starts for Rowlf\_50:

(88, 41321), (174, 41117), (Start: 211 @41057 has 35 MA's), (242, 40991), (302, 40853), (309, 40844), (317, 40826), (354, 40718), (359, 40703), (362, 40694), (374, 40649), (378, 40637), (414, 40562), (431, 40532), (443, 40508),

Gene: Roy17\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Roy17\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: RubyRalph\_59 Start: 44213, Stop: 43635, Start Num: 211

Candidate Starts for RubyRalph\_59:

(66, 44576), (Start: 211 @44213 has 35 MA's), (Start: 252 @44132 has 1 MA's), (268, 44108), (288, 44036), (309, 44000), (321, 43967), (355, 43871), (357, 43865), (362, 43850), (375, 43799), (443, 43658), (447, 43646),

Gene: Rudy\_51 Start: 41145, Stop: 40567, Start Num: 211

Candidate Starts for Rudy\_51:

(94, 41388), (159, 41226), (Start: 211 @41145 has 35 MA's), (270, 41034), (309, 40929), (348, 40824), (362, 40779), (364, 40773), (374, 40734), (379, 40719), (404, 40665), (443, 40590),

Gene: SCentae\_177 Start: 130499, Stop: 131071, Start Num: 189

Candidate Starts for SCentae\_177:

(35, 129986), (115, 130343), (117, 130346), (Start: 189 @130499 has 4 MA's), (222, 130553), (Start: 228 @130556 has 68 MA's), (279, 130631), (284, 130649), (334, 130739), (357, 130811), (374, 130871), (449, 131036), (451, 131042),

Gene: SDcharge11\_6 Start: 3917, Stop: 3363, Start Num: 190



Candidate Starts for SDcharge11\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Sabella\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Sabella\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: SadLad\_60 Start: 45067, Stop: 44489, Start Num: 211

Candidate Starts for SadLad\_60:

(Start: 211 @45067 has 35 MA's), (Start: 252 @44986 has 1 MA's), (288, 44890), (309, 44854), (321, 44821), (355, 44725), (357, 44719), (362, 44704), (375, 44653), (443, 44512), (447, 44500),

Gene: Saguaro\_9 Start: 7128, Stop: 6586, Start Num: 190

Candidate Starts for Saguaro\_9:

(Start: 190 @7128 has 256 MA's), (Start: 280 @6987 has 4 MA's), (287, 6969), (290, 6963), (313, 6930), (317, 6921), (319, 6915), (337, 6873), (339, 6861), (343, 6849), (374, 6747), (375, 6744), (406, 6675), (409, 6669), (442, 6609),

Gene: Salete\_60 Start: 48760, Stop: 49350, Start Num: 212

Candidate Starts for Salete\_60:

(127, 48637), (Start: 212 @48760 has 10 MA's), (247, 48799), (254, 48811), (267, 48835), (278, 48862), (285, 48886), (302, 48919), (317, 48946), (318, 48949), (328, 48979), (342, 49018), (347, 49033), (356, 49060), (357, 49063), (383, 49153), (389, 49168), (392, 49174), (410, 49222), (427, 49252), (444, 49288),

Gene: SallyK\_55 Start: 42264, Stop: 41689, Start Num: 202

Candidate Starts for SallyK\_55:

(Start: 202 @42264 has 4 MA's), (242, 42195), (302, 42057), (309, 42048), (317, 42030), (354, 41922), (359, 41907), (362, 41898), (374, 41853), (378, 41841), (414, 41766), (431, 41736), (443, 41712),

Gene: Salvador\_62 Start: 46631, Stop: 47230, Start Num: 227

Candidate Starts for Salvador\_62:

(Start: 227 @46631 has 33 MA's), (357, 46946), (362, 46961), (374, 47006), (394, 47063), (397, 47078), (404, 47096), (408, 47105), (413, 47114), (425, 47135), (434, 47147), (456, 47213),

Gene: Samaymay\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Samaymay\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Samba\_75 Start: 48756, Stop: 49346, Start Num: 210

Candidate Starts for Samba\_75:

(57, 48378), (78, 48474), (Start: 210 @48756 has 38 MA's), (321, 48978), (325, 48990), (328, 48996), (344, 49041), (351, 49059), (356, 49077), (357, 49080), (368, 49119), (369, 49122), (410, 49248),

Gene: Sampson\_68 Start: 50154, Stop: 50801, Start Num: 195

Candidate Starts for Sampson\_68:

(115, 49992), (119, 49998), (122, 50016), (Start: 170 @50103 has 4 MA's), (Start: 195 @50154 has 56 MA's), (237, 50232), (256, 50274), (258, 50280), (289, 50346), (303, 50364), (336, 50448), (339, 50463), (360, 50523), (362, 50532), (382, 50598), (384, 50607), (417, 50685), (434, 50712), (460, 50790),

Gene: Sanjuju\_67 Start: 51907, Stop: 52545, Start Num: 195

Candidate Starts for Sanjuju\_67:

(92, 51676), (99, 51700), (Start: 139 @51805 has 11 MA's), (Start: 165 @51853 has 1 MA's), (Start: 177 @51874 has 3 MA's), (Start: 195 @51907 has 56 MA's), (276, 52057), (320, 52147), (336, 52186), (339, 52201), (355, 52249), (357, 52255), (384, 52348), (415, 52429), (442, 52486),

Gene: Saronaya\_68 Start: 50864, Stop: 51499, Start Num: 195

Candidate Starts for Saronaya\_68:

(Start: 195 @50864 has 56 MA's), (320, 51101), (336, 51140), (339, 51155), (350, 51185), (352, 51194), (355, 51203), (384, 51302), (404, 51362), (421, 51401),

Gene: SassyCat97\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for SassyCat97\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Savbucketdawg\_62 Start: 46938, Stop: 47537, Start Num: 227

Candidate Starts for Savbucketdawg\_62:

(7, 45984), (9, 45990), (10, 45996), (11, 46002), (13, 46008), (16, 46032), (113, 46710), (Start: 227 @46938 has 33 MA's), (328, 47172), (362, 47268), (374, 47313), (394, 47370), (404, 47403), (408, 47412), (425, 47442), (434, 47454), (456, 47520),

Gene: Schadenfreude\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Schadenfreude\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Schiebel\_51 Start: 36899, Stop: 37489, Start Num: 228

Candidate Starts for Schiebel\_51:

(4, 36227), (5, 36230), (47, 36521), (68, 36650), (91, 36722), (149, 36845), (200, 36866), (203, 36872), (Start: 228 @36899 has 68 MA's), (248, 36947), (288, 37043), (302, 37070), (316, 37091), (318, 37097), (325, 37121), (356, 37208), (366, 37238), (374, 37271), (377, 37280), (391, 37319), (398, 37358), (410, 37385), (445, 37454),

Gene: SchottB\_64 Start: 50477, Stop: 51112, Start Num: 197

Candidate Starts for SchottB\_64:

(111, 50297), (155, 50399), (Start: 197 @50477 has 5 MA's), (276, 50624), (320, 50714), (336, 50753), (339, 50768), (354, 50813), (357, 50822), (374, 50882), (384, 50915), (421, 51014),

Gene: Schueller\_6 Start: 3864, Stop: 3364, Start Num: 227

Candidate Starts for Schueller\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Scioto\_66 Start: 50004, Stop: 50651, Start Num: 195

Candidate Starts for Scioto\_66:

(115, 49842), (119, 49848), (122, 49866), (Start: 170 @49953 has 4 MA's), (Start: 195 @50004 has 56 MA's), (237, 50082), (256, 50124), (258, 50130), (289, 50196), (303, 50214), (336, 50298), (339, 50313), (360, 50373), (362, 50382), (382, 50448), (384, 50457), (417, 50535), (434, 50562), (460, 50640),

Gene: Scoot17C\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Scoot17C\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Scrick\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Scrick\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514),

Gene: Sedona\_67 Start: 52480, Stop: 53118, Start Num: 195

Candidate Starts for Sedona\_67:

(92, 52249), (99, 52273), (Start: 139 @52378 has 11 MA's), (Start: 165 @52426 has 1 MA's), (Start: 177 @52447 has 3 MA's), (Start: 195 @52480 has 56 MA's), (276, 52630), (320, 52720), (336, 52759), (339, 52774), (355, 52822), (357, 52828), (384, 52921), (415, 53002), (442, 53059),

Gene: Selr12\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Selr12\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Serendipitous\_8 Start: 6269, Stop: 5706, Start Num: 192

Candidate Starts for Serendipitous\_8:

(Start: 192 @6269 has 60 MA's), (Start: 280 @6113 has 4 MA's), (319, 6035), (337, 5993), (343, 5969), (352, 5942), (356, 5930), (374, 5867), (378, 5855), (394, 5828), (428, 5756), (432, 5750),

Gene: Serendipity\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Serendipity\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Serpentine\_006 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Serpentine\_006:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: ShaboiShabazz\_50 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for ShaboiShabazz\_50:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Shatter\_6 Start: 4904, Stop: 4362, Start Num: 191

Candidate Starts for Shatter\_6:

(37, 5378), (67, 5207), (Start: 191 @4904 has 52 MA's), (Start: 227 @4850 has 33 MA's), (264, 4811), (317, 4697), (364, 4565), (374, 4526), (378, 4514), (379, 4511), (393, 4487), (403, 4460), (432, 4406), (443, 4382),

Gene: Sheila\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Sheila\_6:

(Start: 190 @3916 has 256 MA's), (Start: 211 @3886 has 35 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Shenyu\_8 Start: 6203, Stop: 5640, Start Num: 192

Candidate Starts for Shenyu\_8:

(Start: 192 @6203 has 60 MA's), (230, 6146), (Start: 280 @6047 has 4 MA's), (319, 5969), (337, 5927), (343, 5903), (356, 5864), (374, 5801), (375, 5798), (378, 5789), (394, 5762), (428, 5690), (432, 5684), (442, 5663), (446, 5651),

Gene: ShiVal\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for ShiVal\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Shinji\_62 Start: 46801, Stop: 47400, Start Num: 227

Candidate Starts for Shinji\_62:

(Start: 227 @46801 has 33 MA's), (357, 47116), (362, 47131), (374, 47176), (394, 47233), (404, 47266), (406, 47269), (408, 47275), (425, 47305), (434, 47317), (447, 47353), (456, 47383),

Gene: Shivanishola\_68 Start: 50210, Stop: 50848, Start Num: 195

Candidate Starts for Shivanishola\_68:

(Start: 195 @50210 has 56 MA's), (276, 50360), (320, 50450), (336, 50489), (339, 50504), (355, 50552), (357, 50558), (374, 50618), (384, 50651), (415, 50732), (442, 50789),

Gene: Sigman\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Sigman\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Sillytadpoles\_54 Start: 40982, Stop: 40404, Start Num: 211

Candidate Starts for Sillytadpoles\_54:

(94, 41225), (159, 41063), (Start: 211 @40982 has 35 MA's), (270, 40871), (309, 40766), (348, 40661), (362, 40616), (364, 40610), (374, 40571), (379, 40556), (404, 40502), (443, 40427),

Gene: SilverBell\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for SilverBell\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Simielle\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Simielle\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438,

3402),

Gene: SirJeffery\_8 Start: 6217, Stop: 5651, Start Num: 192

Candidate Starts for SirJeffery\_8:

(Start: 192 @6217 has 60 MA's), (230, 6160), (Start: 280 @6058 has 4 MA's), (319, 5980), (337, 5938), (343, 5914), (352, 5887), (356, 5875), (378, 5800), (394, 5773), (428, 5701), (432, 5695),

Gene: Sisko\_5 Start: 4711, Stop: 4184, Start Num: 191

Candidate Starts for Sisko\_5:

(Start: 191 @4711 has 52 MA's), (253, 4636), (347, 4441), (348, 4438), (354, 4417), (362, 4393), (364, 4387), (374, 4348), (379, 4333), (384, 4315), (404, 4279), (410, 4267), (443, 4204),

Gene: Sitar\_68 Start: 52372, Stop: 53043, Start Num: 177

Candidate Starts for Sitar\_68:

(92, 52174), (99, 52198), (Start: 139 @52303 has 11 MA's), (Start: 165 @52351 has 1 MA's), (Start: 177 @52372 has 3 MA's), (Start: 195 @52405 has 56 MA's), (276, 52555), (320, 52645), (336, 52684), (339, 52699), (355, 52747), (357, 52753), (384, 52846), (415, 52927), (442, 52984),

Gene: Sizemore\_51 Start: 36900, Stop: 37490, Start Num: 228

Candidate Starts for Sizemore\_51:

(4, 36228), (5, 36231), (47, 36522), (68, 36651), (91, 36723), (149, 36846), (200, 36867), (203, 36873), (Start: 228 @36900 has 68 MA's), (248, 36948), (288, 37044), (302, 37071), (316, 37092), (318, 37098), (325, 37122), (356, 37209), (366, 37239), (374, 37272), (377, 37281), (391, 37320), (398, 37359), (410, 37386), (445, 37455),

Gene: Skippy\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Skippy\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Skog\_10 Start: 6857, Stop: 7429, Start Num: 189

Candidate Starts for Skog\_10:

(Start: 189 @6857 has 4 MA's), (249, 6938), (279, 6989), (314, 7049), (334, 7097), (357, 7169), (374, 7229), (375, 7232), (449, 7394),

Gene: Slatt\_6 Start: 3920, Stop: 3366, Start Num: 190

Candidate Starts for Slatt\_6:

(Start: 190 @3920 has 256 MA's), (Start: 211 @3890 has 35 MA's), (Start: 220 @3875 has 3 MA's), (Start: 280 @3770 has 4 MA's), (319, 3695), (334, 3659), (337, 3653), (375, 3524), (378, 3515), (438, 3404),

Gene: Sleepyhead\_61 Start: 40018, Stop: 40581, Start Num: 233

Candidate Starts for Sleepyhead\_61:

(40, 39454), (79, 39658), (93, 39706), (185, 39922), (219, 39991), (Start: 233 @40018 has 2 MA's), (272, 40105), (275, 40114), (284, 40168), (305, 40207), (341, 40303), (346, 40318), (348, 40324), (357, 40354), (359, 40360), (362, 40369), (374, 40414), (378, 40426), (415, 40507), (435, 40537),

Gene: SlippinJimmy\_8 Start: 6176, Stop: 5625, Start Num: 191

Candidate Starts for SlippinJimmy\_8:

(Start: 154 @6251 has 4 MA's), (Start: 163 @6233 has 1 MA's), (Start: 191 @6176 has 52 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: SmokingBunny\_63 Start: 47232, Stop: 47831, Start Num: 227

Candidate Starts for SmokingBunny\_63:

(18, 46362), (20, 46368), (21, 46374), (22, 46380), (23, 46386), (113, 47004), (Start: 227 @47232 has 33 MA's), (328, 47466), (362, 47562), (374, 47607), (394, 47664), (404, 47697), (408, 47706), (425, 47736), (434, 47748), (447, 47784), (456, 47814),

Gene: Sneeze\_52 Start: 37052, Stop: 37639, Start Num: 198

Candidate Starts for Sneeze\_52:

(14, 36563), (19, 36605), (24, 36641), (91, 36974), (Start: 198 @37052 has 4 MA's), (288, 37196), (316, 37244), (318, 37250), (325, 37274), (356, 37361), (374, 37424), (377, 37433), (398, 37508), (410, 37535),

Gene: Soile\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Soile\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Solosis\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Solosis\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Sophia\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Sophia\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Soto\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Soto\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Sour\_9 Start: 6563, Stop: 6030, Start Num: 191

Candidate Starts for Sour\_9:

(Start: 191 @6563 has 52 MA's), (317, 6371), (318, 6368), (362, 6242), (364, 6236), (373, 6200), (374, 6197), (378, 6185), (403, 6131), (404, 6128),

Gene: Spartan300\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Spartan300\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Squash\_56 Start: 41774, Stop: 41202, Start Num: 211

Candidate Starts for Squash\_56:

(76, 42089), (109, 41972), (174, 41834), (Start: 211 @41774 has 35 MA's), (242, 41708), (302, 41570), (309, 41561), (317, 41543), (354, 41435), (359, 41420), (362, 41411), (374, 41366), (378, 41354), (414, 41279), (431, 41249), (443, 41225),

Gene: Squid\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Squid\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Squiggle\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Squiggle\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: StAugustine\_13 Start: 8920, Stop: 8363, Start Num: 186

Candidate Starts for StAugustine\_13:

(186, 8920), (Start: 220 @8866 has 3 MA's), (229, 8851), (Start: 280 @8764 has 4 MA's), (294, 8731), (321, 8686), (329, 8671), (363, 8569), (374, 8527), (442, 8386), (443, 8383),

Gene: Stargaze\_52 Start: 38406, Stop: 39032, Start Num: 205

Candidate Starts for Stargaze\_52:

(80, 38190), (Start: 205 @38406 has 1 MA's), (Start: 228 @38445 has 68 MA's), (248, 38493), (292, 38598), (317, 38640), (318, 38643), (355, 38751), (374, 38817), (375, 38820), (377, 38826), (398, 38901), (410, 38928),

Gene: Statler\_57 Start: 41776, Stop: 41204, Start Num: 211

Candidate Starts for Statler\_57:

(101, 42001), (174, 41836), (Start: 211 @41776 has 35 MA's), (242, 41710), (302, 41572), (309, 41563), (317, 41545), (354, 41437), (359, 41422), (362, 41413), (374, 41368), (378, 41356), (414, 41281), (431, 41251), (443, 41227),

Gene: Stinger\_5 Start: 4681, Stop: 4121, Start Num: 192

Candidate Starts for Stinger\_5:

(Start: 192 @4681 has 60 MA's), (Start: 280 @4525 has 4 MA's), (283, 4513), (294, 4492), (317, 4456), (334, 4414), (337, 4408), (352, 4357), (354, 4351), (374, 4282), (403, 4216), (404, 4213), (410, 4201), (412, 4198), (442, 4144),

Gene: StinkyVeggy\_8 Start: 6203, Stop: 5637, Start Num: 192

Candidate Starts for StinkyVeggy\_8:

(29, 6839), (32, 6767), (38, 6701), (136, 6317), (164, 6263), (169, 6257), (183, 6227), (Start: 192 @6203 has 60 MA's), (Start: 280 @6044 has 4 MA's), (319, 5966), (337, 5924), (343, 5900), (352, 5873), (374, 5798), (375, 5795), (428, 5687), (432, 5681), (442, 5660), (446, 5648),

Gene: StorminNorm\_67 Start: 50648, Stop: 51283, Start Num: 195

Candidate Starts for StorminNorm\_67:

(Start: 195 @50648 has 56 MA's), (320, 50885), (336, 50924), (339, 50939), (350, 50969), (352, 50978), (355, 50987), (384, 51086), (404, 51146), (421, 51185),

Gene: StrawberryJamm\_57 Start: 41442, Stop: 40867, Start Num: 202

Candidate Starts for StrawberryJamm\_57:

(Start: 202 @41442 has 4 MA's), (242, 41373), (302, 41235), (309, 41226), (317, 41208), (354, 41100), (359, 41085), (362, 41076), (374, 41031), (378, 41019), (414, 40944), (431, 40914), (443, 40890),

Gene: Struggle\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Struggle\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Stultus\_64 Start: 50652, Stop: 51290, Start Num: 195

Candidate Starts for Stultus\_64:

(92, 50421), (99, 50445), (Start: 139 @50550 has 11 MA's), (Start: 165 @50598 has 1 MA's), (Start: 177 @50619 has 3 MA's), (Start: 195 @50652 has 56 MA's), (242, 50736), (276, 50802), (320, 50892), (336, 50931), (339, 50946), (355, 50994), (357, 51000), (384, 51093), (415, 51174), (442, 51231),

Gene: Suffolk\_6 Start: 3917, Stop: 3363, Start Num: 190

Candidate Starts for Suffolk\_6:

(Start: 190 @3917 has 256 MA's), (Start: 211 @3887 has 35 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Suigeneris\_8 Start: 6217, Stop: 5651, Start Num: 192

Candidate Starts for Suigeneris\_8:

(Start: 192 @6217 has 60 MA's), (230, 6160), (Start: 280 @6058 has 4 MA's), (319, 5980), (337, 5938), (343, 5914), (352, 5887), (356, 5875), (378, 5800), (394, 5773), (428, 5701), (432, 5695),

Gene: Sunfish\_70 Start: 44153, Stop: 43554, Start Num: 254

Candidate Starts for Sunfish\_70:

(254, 44153), (286, 44057), (305, 44021), (325, 43964), (330, 43955), (337, 43940), (348, 43898), (365, 43844), (366, 43835), (371, 43808), (387, 43748), (390, 43739), (395, 43718), (403, 43685), (410, 43670), (422, 43643), (437, 43631),

Gene: Surely\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Surely\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Sweets\_50 Start: 36909, Stop: 37499, Start Num: 228

Candidate Starts for Sweets\_50:

(4, 36237), (5, 36240), (47, 36531), (68, 36660), (91, 36732), (149, 36855), (200, 36876), (203, 36882), (Start: 228 @36909 has 68 MA's), (248, 36957), (288, 37053), (302, 37080), (316, 37101), (318, 37107), (325, 37131), (356, 37218), (366, 37248), (374, 37281), (377, 37290), (391, 37329), (398, 37368), (410, 37395), (445, 37464),

Gene: Swiphy\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Swiphy\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Swish\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Swish\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: SynergyX\_8 Start: 5414, Stop: 4863, Start Num: 191

Candidate Starts for SynergyX\_8:



(Start: 156 @5486 has 7 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: TA17A\_9 Start: 6543, Stop: 7049, Start Num: 233

Candidate Starts for TA17A\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (144, 6378), (145, 6381), (Start: 192 @6474 has 60 MA's), (Start: 228 @6531 has 68 MA's), (Start: 233 @6543 has 2 MA's), (Start: 240 @6561 has 1 MA's), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: TP1604\_60 Start: 48765, Stop: 49355, Start Num: 212

Candidate Starts for TP1604\_60:

(Start: 212 @48765 has 10 MA's), (254, 48816), (267, 48840), (278, 48867), (285, 48891), (302, 48924), (317, 48951), (318, 48954), (328, 48984), (342, 49023), (347, 49038), (356, 49065), (357, 49068), (383, 49158), (389, 49173), (392, 49179), (410, 49227), (427, 49257), (444, 49293),

Gene: TPA2\_15 Start: 7500, Stop: 6925, Start Num: 176

Candidate Starts for TPA2\_15:

(Start: 176 @7500 has 1 MA's), (183, 7488), (209, 7449), (216, 7440), (Start: 228 @7422 has 68 MA's), (272, 7380), (304, 7302), (316, 7287), (318, 7281), (319, 7278), (375, 7107), (397, 7056), (403, 7044), (443, 6972), (453, 6948), (455, 6936),

Gene: Taheera\_49 Start: 36701, Stop: 37288, Start Num: 198

Candidate Starts for Taheera\_49:

(Start: 198 @36701 has 4 MA's), (288, 36845), (316, 36893), (318, 36899), (325, 36923), (356, 37010), (374, 37073), (377, 37082), (398, 37157), (410, 37184),

Gene: TallGrassMM\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for TallGrassMM\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Tangent\_71 Start: 51275, Stop: 51913, Start Num: 195

Candidate Starts for Tangent\_71:

(Start: 195 @51275 has 56 MA's), (276, 51425), (318, 51506), (320, 51515), (336, 51554), (339, 51569), (355, 51617), (384, 51716), (415, 51797), (442, 51854),

Gene: Tangerine\_67 Start: 50157, Stop: 50792, Start Num: 195

Candidate Starts for Tangerine\_67:

(Start: 195 @50157 has 56 MA's), (320, 50394), (336, 50433), (339, 50448), (350, 50478), (352, 50487), (355, 50496), (384, 50595), (421, 50694),

Gene: Tardus\_66 Start: 50008, Stop: 50655, Start Num: 195

Candidate Starts for Tardus\_66:

(Start: 195 @50008 has 56 MA's), (237, 50086), (256, 50128), (258, 50134), (289, 50200), (336, 50302), (339, 50317), (344, 50332), (360, 50377), (362, 50386), (382, 50452), (384, 50461), (417, 50539), (460, 50644),

Gene: Teehee\_54 Start: 42215, Stop: 41637, Start Num: 211

Candidate Starts for Teehee\_54:

(94, 42458), (159, 42296), (Start: 211 @42215 has 35 MA's), (270, 42104), (309, 41999), (348, 41894), (362, 41849), (364, 41843), (374, 41804), (379, 41789), (404, 41735), (443, 41660),

Gene: Telesworld\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Telesworld\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Tempo\_61 Start: 42398, Stop: 41835, Start Num: 211

Candidate Starts for Tempo\_61:

(Start: 211 @42398 has 35 MA's), (279, 42254), (375, 41999), (378, 41990), (410, 41921), (443, 41858),

Gene: Terror\_49 Start: 36701, Stop: 37288, Start Num: 198

Candidate Starts for Terror\_49:

(Start: 198 @36701 has 4 MA's), (288, 36845), (316, 36893), (318, 36899), (325, 36923), (356, 37010), (374, 37073), (377, 37082), (398, 37157), (410, 37184),

Gene: Thing3\_67 Start: 51068, Stop: 51706, Start Num: 195

Candidate Starts for Thing3\_67:

(Start: 195 @51068 has 56 MA's), (276, 51218), (318, 51299), (320, 51308), (336, 51347), (339, 51362), (355, 51410), (384, 51509), (415, 51590), (442, 51647),

Gene: Thonko\_3 Start: 2519, Stop: 1968, Start Num: 190

Candidate Starts for Thonko\_3:

(Start: 190 @2519 has 256 MA's), (Start: 280 @2369 has 4 MA's), (338, 2252), (374, 2129), (375, 2126), (442, 1991),

Gene: Thora\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Thora\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: ThreeOh3D2\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for ThreeOh3D2\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Thunderbird\_6 Start: 3863, Stop: 3363, Start Num: 227

Candidate Starts for Thunderbird\_6:

(Start: 190 @3917 has 256 MA's), (Start: 220 @3872 has 3 MA's), (Start: 227 @3863 has 33 MA's), (Start: 280 @3767 has 4 MA's), (319, 3692), (334, 3656), (337, 3650), (375, 3521), (378, 3512), (438, 3401),

Gene: Tiamoceli\_62 Start: 46644, Stop: 47270, Start Num: 195

Candidate Starts for Tiamoceli\_62:

(Start: 195 @46644 has 56 MA's), (Start: 228 @46701 has 68 MA's), (269, 46785), (306, 46857), (317, 46887), (351, 46986), (382, 47088), (404, 47148), (434, 47202), (441, 47217),

Gene: TillyBobJoe\_63 Start: 47091, Stop: 47690, Start Num: 227

Candidate Starts for TillyBobJoe\_63:

(7, 46149), (9, 46155), (10, 46161), (11, 46167), (13, 46173), (16, 46197), (27, 46320), (50, 46635), (113, 46863), (Start: 227 @47091 has 33 MA's), (357, 47406), (362, 47421), (374, 47466), (394, 47523), (404, 47556), (408, 47565), (425, 47595), (434, 47607), (447, 47643), (456, 47673),

Gene: Timmi\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Timmi\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Tinciduntolum\_10 Start: 6590, Stop: 7165, Start Num: 192

Candidate Starts for Tinciduntolum\_10:

(123, 6455), (Start: 132 @6473 has 2 MA's), (144, 6494), (145, 6497), (Start: 192 @6590 has 60 MA's), (Start: 228 @6647 has 68 MA's), (Start: 233 @6659 has 2 MA's), (Start: 240 @6677 has 1 MA's), (283, 6770), (288, 6779), (334, 6869), (335, 6872), (337, 6875), (348, 6911), (359, 6947), (362, 6956), (374, 7001), (375, 7004), (378, 7013), (406, 7073), (409, 7079), (410, 7082), (432, 7118), (443, 7142), (446, 7151),

Gene: Tissue\_54 Start: 41854, Stop: 41282, Start Num: 211

Candidate Starts for Tissue\_54:

(Start: 163 @41941 has 1 MA's), (Start: 211 @41854 has 35 MA's), (242, 41788), (302, 41650), (309, 41641), (317, 41623), (354, 41515), (359, 41500), (362, 41491), (374, 41446), (378, 41434), (414, 41359), (431, 41329), (443, 41305),

Gene: Toast\_74 Start: 46525, Stop: 47115, Start Num: 210

Candidate Starts for Toast\_74:

(Start: 210 @46525 has 38 MA's), (296, 46702), (318, 46735), (321, 46747), (325, 46759), (328, 46765), (344, 46810), (369, 46891), (410, 47017), (434, 47056),

Gene: Togo\_62 Start: 47232, Stop: 47831, Start Num: 227

Candidate Starts for Togo\_62:

(18, 46362), (20, 46368), (21, 46374), (22, 46380), (23, 46386), (113, 47004), (Start: 227 @47232 has 33 MA's), (328, 47466), (362, 47562), (374, 47607), (394, 47664), (404, 47697), (408, 47706), (425, 47736), (434, 47748), (447, 47784), (456, 47814),

Gene: TomBombadil\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for TomBombadil\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: TomBrady\_51 Start: 36915, Stop: 37505, Start Num: 228

Candidate Starts for TomBrady\_51:

(4, 36243), (5, 36246), (47, 36537), (68, 36666), (91, 36738), (149, 36861), (200, 36882), (203, 36888), (Start: 228 @36915 has 68 MA's), (248, 36963), (288, 37059), (302, 37086), (316, 37107), (318, 37113), (325, 37137), (356, 37224), (366, 37254), (374, 37287), (377, 37296), (391, 37335), (398, 37374), (410, 37401), (445, 37470),

Gene: Tomlarah\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Tomlarah\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513),

Gene: Toni\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Toni\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 227 @3865 has 33 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Tooj\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Tooj\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Tres\_9 Start: 6474, Stop: 7049, Start Num: 192

Candidate Starts for Tres\_9:

(123, 6339), (Start: 132 @6357 has 2 MA's), (135, 6360), (142, 6372), (144, 6378), (Start: 192 @6474 has 60 MA's), (234, 6546), (245, 6573), (283, 6654), (288, 6663), (334, 6753), (335, 6756), (337, 6759), (348, 6795), (359, 6831), (362, 6840), (374, 6885), (375, 6888), (378, 6897), (406, 6957), (409, 6963), (410, 6966), (432, 7002), (443, 7026), (446, 7035),

Gene: True\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for True\_6:

(Start: 190 @3916 has 256 MA's), (Start: 211 @3886 has 35 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Trypo\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Trypo\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Twister6\_65 Start: 46992, Stop: 47591, Start Num: 227

Candidate Starts for Twister6\_65:

(15, 46068), (17, 46077), (25, 46158), (113, 46764), (Start: 227 @46992 has 33 MA's), (328, 47226), (362, 47322), (374, 47367), (394, 47424), (404, 47457), (408, 47466), (425, 47496), (434, 47508), (447, 47544), (456, 47574),

Gene: Twonlo\_60 Start: 45734, Stop: 46360, Start Num: 195

Candidate Starts for Twonlo\_60:

(Start: 195 @45734 has 56 MA's), (Start: 228 @45791 has 68 MA's), (269, 45875), (306, 45947), (317, 45977), (351, 46076), (382, 46178), (404, 46238), (434, 46292), (441, 46307),

Gene: Tycho\_65 Start: 49973, Stop: 50608, Start Num: 195

Candidate Starts for Tycho\_65:

(Start: 195 @49973 has 56 MA's), (320, 50210), (336, 50249), (339, 50264), (350, 50294), (352, 50303), (355, 50312), (404, 50471), (421, 50510),

Gene: Tydolla\_8 Start: 6251, Stop: 5625, Start Num: 154

Candidate Starts for Tydolla\_8:

(Start: 154 @6251 has 4 MA's), (Start: 163 @6233 has 1 MA's), (Start: 191 @6176 has 52 MA's), (Start: 211 @6146 has 35 MA's), (Start: 252 @6095 has 1 MA's), (271, 6068), (Start: 280 @6029 has 4 MA's), (294, 5996), (304, 5984), (363, 5831), (374, 5789), (384, 5756), (403, 5723), (431, 5672), (443, 5645),

Gene: Typha\_83 Start: 54897, Stop: 55466, Start Num: 228

Candidate Starts for Typha\_83:

(158, 54768), (161, 54771), (178, 54807), (Start: 228 @54897 has 68 MA's), (257, 54963), (294, 55053), (296, 55056), (317, 55086), (318, 55089), (339, 55146), (347, 55170), (352, 55185), (355, 55194), (356, 55197), (357, 55200), (361, 55212), (373, 55260), (380, 55281), (399, 55347), (408, 55368), (427, 55401), (440, 55422), (443, 55434),

Gene: TyrionL\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for TyrionL\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: UAch1\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for UAch1\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Ubuntu\_74 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for Ubuntu\_74:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: UmaThurman\_76 Start: 46447, Stop: 47037, Start Num: 210

Candidate Starts for UmaThurman\_76:

(Start: 210 @46447 has 38 MA's), (321, 46669), (325, 46681), (328, 46687), (344, 46732), (351, 46750), (356, 46768), (357, 46771), (368, 46810), (369, 46813), (410, 46939), (446, 47011),

Gene: UncleHowie\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for UncleHowie\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Usavi\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Usavi\_6:

(Start: 190 @3915 has 256 MA's), (Start: 211 @3885 has 35 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Utz\_66 Start: 46364, Stop: 46954, Start Num: 210

Candidate Starts for Utz\_66:

(Start: 210 @46364 has 38 MA's), (321, 46586), (325, 46598), (328, 46604), (344, 46649), (351, 46667), (357, 46688), (369, 46730), (410, 46856), (446, 46928),

Gene: Vaishali24\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Vaishali24\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Valary\_64 Start: 47836, Stop: 48438, Start Num: 227

Candidate Starts for Valary\_64:

(Start: 227 @47836 has 33 MA's), (331, 48076), (357, 48154), (362, 48169), (374, 48214), (381, 48235), (404, 48304), (406, 48307), (408, 48313), (425, 48343), (434, 48355), (456, 48421),

Gene: ValentiniPuff\_108 Start: 60343, Stop: 60918, Start Num: 228

Candidate Starts for ValentiniPuff\_108:

(Start: 228 @60343 has 68 MA's), (244, 60385), (273, 60430), (292, 60463), (298, 60472), (310, 60493), (319, 60520), (362, 60643), (366, 60655), (374, 60688), (375, 60691), (378, 60700), (385, 60721), (401, 60772), (411, 60796), (418, 60811),

Gene: Valjean\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Valjean\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: VanDeWege\_65 Start: 47176, Stop: 47778, Start Num: 227

Candidate Starts for VanDeWege\_65:

(Start: 227 @47176 has 33 MA's), (331, 47416), (357, 47494), (362, 47509), (374, 47554), (381, 47575), (404, 47644), (406, 47647), (408, 47653), (425, 47683), (434, 47695), (456, 47761),

Gene: Vaticameos\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Vaticameos\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: Veritas\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Veritas\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Verity\_65 Start: 50949, Stop: 51596, Start Num: 195

Candidate Starts for Verity\_65:

(115, 50787), (119, 50793), (122, 50811), (Start: 170 @50898 has 4 MA's), (Start: 195 @50949 has 56 MA's), (237, 51027), (256, 51069), (258, 51075), (269, 51090), (289, 51141), (317, 51192), (339, 51258), (382, 51393), (384, 51402), (417, 51480), (434, 51507), (460, 51585),

Gene: ViaConlectus\_65 Start: 48514, Stop: 49161, Start Num: 194

Candidate Starts for ViaConlectus\_65:

(Start: 194 @48514 has 2 MA's), (237, 48592), (256, 48634), (258, 48640), (289, 48706), (336, 48808), (339, 48823), (360, 48883), (362, 48892), (382, 48958), (384, 48967), (417, 49045), (434, 49072), (460, 49150),

Gene: Vic9\_10 Start: 6917, Stop: 7492, Start Num: 192

Candidate Starts for Vic9\_10:

(123, 6782), (Start: 132 @6800 has 2 MA's), (135, 6803), (142, 6815), (144, 6821), (Start: 192 @6917 has 60 MA's), (234, 6989), (245, 7016), (283, 7097), (288, 7106), (334, 7196), (335, 7199), (337, 7202), (348, 7238), (359, 7274), (362, 7283), (374, 7328), (375, 7331), (378, 7340), (404, 7397), (406, 7400), (409, 7406), (410, 7409), (432, 7445), (443, 7469), (446, 7478),

Gene: Viceroy\_52 Start: 41115, Stop: 40537, Start Num: 211

Candidate Starts for Viceroy\_52:

(94, 41358), (159, 41196), (Start: 211 @41115 has 35 MA's), (270, 41004), (309, 40899), (348, 40794), (362, 40749), (364, 40743), (374, 40704), (379, 40689), (404, 40635), (443, 40560),

Gene: Vincenzo\_8 Start: 6947, Stop: 6363, Start Num: 192

Candidate Starts for Vincenzo\_8:

(Start: 192 @6947 has 60 MA's), (Start: 250 @6842 has 1 MA's), (Start: 280 @6773 has 4 MA's), (319, 6695), (337, 6653), (339, 6641), (343, 6629), (352, 6602), (357, 6587), (374, 6527), (384, 6494), (406, 6452), (417, 6428),

Gene: VioletZ\_7 Start: 6243, Stop: 5680, Start Num: 192

Candidate Starts for VioletZ\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (356, 5904), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: Virapocalypse\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Virapocalypse\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Virgeve\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Virgeve\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Vista\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Vista\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 227 @3864 has 33 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Vivaldi\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Vivaldi\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: Vivi2\_73 Start: 52330, Stop: 52968, Start Num: 195

Candidate Starts for Vivi2\_73:

(Start: 195 @52330 has 56 MA's), (276, 52480), (320, 52570), (336, 52609), (339, 52624), (355, 52672), (357, 52678), (384, 52771), (415, 52852), (442, 52909),

Gene: Vortex\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Vortex\_6:

(Start: 190 @3919 has 256 MA's), (Start: 211 @3889 has 35 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's), (319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Waleliano\_7 Start: 6243, Stop: 5680, Start Num: 192

Candidate Starts for Waleliano\_7:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (347, 5934), (356, 5904), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: Wallhey\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Wallhey\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's),  
(Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Walrus\_73 Start: 47019, Stop: 47603, Start Num: 210

Candidate Starts for Walrus\_73:

(201, 47004), (Start: 210 @47019 has 38 MA's), (246, 47085), (254, 47100), (285, 47172), (317,  
47223), (318, 47226), (319, 47229), (336, 47268), (341, 47289), (368, 47376), (383, 47427), (388,  
47436), (410, 47496),

Gene: Warren\_37 Start: 22612, Stop: 23184, Start Num: 221

Candidate Starts for Warren\_37:

(Start: 221 @22612 has 9 MA's), (236, 22642), (Start: 280 @22756 has 4 MA's), (290, 22783), (301,  
22804), (322, 22846), (328, 22861), (333, 22873), (347, 22915), (372, 23002), (374, 23008), (378,  
23020), (404, 23074),

Gene: Waterdiva\_6 Start: 3919, Stop: 3365, Start Num: 190

Candidate Starts for Waterdiva\_6:

(Start: 190 @3919 has 256 MA's), (Start: 220 @3874 has 3 MA's), (Start: 280 @3769 has 4 MA's),  
(319, 3694), (334, 3658), (337, 3652), (375, 3523), (378, 3514), (438, 3403),

Gene: Wayne3\_55 Start: 41978, Stop: 41400, Start Num: 211

Candidate Starts for Wayne3\_55:

(94, 42221), (159, 42059), (Start: 211 @41978 has 35 MA's), (270, 41867), (309, 41762), (348,  
41657), (362, 41612), (364, 41606), (374, 41567), (379, 41552), (404, 41498), (443, 41423),

Gene: Webster2\_74 Start: 48245, Stop: 48856, Start Num: 208

Candidate Starts for Webster2\_74:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15  
MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352,  
48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410,  
48746), (415, 48755), (425, 48773), (436, 48788),

Gene: Weher20\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for Weher20\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 280 @3765 has 4 MA's),  
(319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510),

Gene: Weirido19\_69 Start: 44467, Stop: 45291, Start Num: 110

Candidate Starts for Weirido19\_69:

(59, 44290), (110, 44467), (167, 44593), (Start: 212 @44650 has 10 MA's), (260, 44746), (285,  
44812), (296, 44833), (318, 44884), (330, 44917), (343, 44956), (356, 44995), (370, 45046), (395,  
45130), (405, 45154), (423, 45193), (426, 45199), (459, 45280),

Gene: Wendigo\_49 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Wendigo\_49:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203,  
36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106),  
(318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334),  
(398, 37373), (410, 37400), (445, 37469),

Gene: West99\_9 Start: 6591, Stop: 7166, Start Num: 192

Candidate Starts for West99\_9:



(123, 6456), (Start: 132 @6474 has 2 MA's), (144, 6495), (145, 6498), (Start: 192 @6591 has 60 MA's), (Start: 228 @6648 has 68 MA's), (Start: 233 @6660 has 2 MA's), (Start: 240 @6678 has 1 MA's), (283, 6771), (288, 6780), (334, 6870), (335, 6873), (337, 6876), (348, 6912), (359, 6948), (362, 6957), (374, 7002), (375, 7005), (378, 7014), (406, 7074), (409, 7080), (410, 7083), (432, 7119), (443, 7143), (446, 7152),

Gene: Whack\_67 Start: 43772, Stop: 44335, Start Num: 233

Candidate Starts for Whack\_67:

(185, 43679), (Start: 191 @43697 has 52 MA's), (215, 43742), (219, 43751), (Start: 233 @43772 has 2 MA's), (272, 43859), (275, 43868), (297, 43946), (305, 43961), (313, 43973), (332, 44024), (345, 44069), (357, 44108), (378, 44180), (410, 44249), (432, 44285), (448, 44324),

Gene: Wheelie\_53 Start: 41299, Stop: 40721, Start Num: 211

Candidate Starts for Wheelie\_53:

(94, 41542), (159, 41380), (Start: 211 @41299 has 35 MA's), (270, 41188), (309, 41083), (348, 40978), (362, 40933), (364, 40927), (374, 40888), (379, 40873), (404, 40819), (443, 40744),

Gene: Wilca\_61 Start: 42242, Stop: 41679, Start Num: 211

Candidate Starts for Wilca\_61:

(167, 42308), (172, 42299), (Start: 211 @42242 has 35 MA's), (317, 42020), (374, 41846), (375, 41843), (378, 41834), (410, 41765), (443, 41702),

Gene: William\_77 Start: 47824, Stop: 48414, Start Num: 210

Candidate Starts for William\_77:

(31, 47206), (64, 47485), (86, 47560), (Start: 210 @47824 has 38 MA's), (321, 48046), (325, 48058), (328, 48064), (344, 48109), (356, 48145), (357, 48148), (369, 48190), (410, 48316),

Gene: Windsor\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Windsor\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 227 @3862 has 33 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511),

Gene: Wishmaker\_67 Start: 48164, Stop: 48856, Start Num: 139

Candidate Starts for Wishmaker\_67:

(60, 47927), (Start: 139 @48164 has 11 MA's), (143, 48173), (167, 48215), (Start: 208 @48245 has 15 MA's), (249, 48326), (283, 48410), (296, 48434), (301, 48443), (318, 48473), (330, 48506), (352, 48572), (364, 48608), (379, 48662), (386, 48686), (388, 48689), (393, 48704), (403, 48731), (410, 48746), (415, 48755), (425, 48773), (436, 48788),

Gene: Wisp\_73 Start: 46479, Stop: 47069, Start Num: 210

Candidate Starts for Wisp\_73:

(Start: 210 @46479 has 38 MA's), (321, 46701), (325, 46713), (328, 46719), (351, 46782), (356, 46800), (357, 46803), (368, 46842), (369, 46845), (410, 46971), (446, 47043),

Gene: Wizard\_61 Start: 47082, Stop: 47684, Start Num: 227

Candidate Starts for Wizard\_61:

(Start: 227 @47082 has 33 MA's), (331, 47322), (357, 47400), (362, 47415), (374, 47460), (381, 47481), (404, 47550), (406, 47553), (408, 47559), (425, 47589), (434, 47601), (456, 47667),

Gene: Wocket\_74 Start: 46904, Stop: 47488, Start Num: 210

Candidate Starts for Wocket\_74:

(Start: 210 @46904 has 38 MA's), (254, 46985), (285, 47057), (318, 47111), (319, 47114), (336, 47153), (341, 47174), (380, 47300), (383, 47312), (388, 47321), (410, 47381),

Gene: Wooper\_8 Start: 6372, Stop: 5821, Start Num: 191

Candidate Starts for Wooper\_8:

(152, 6432), (160, 6417), (162, 6411), (Start: 191 @6372 has 52 MA's), (Start: 220 @6327 has 3 MA's), (224, 6321), (Start: 280 @6234 has 4 MA's), (287, 6216), (300, 6192), (317, 6165), (318, 6162), (319, 6159), (354, 6060), (378, 5979), (410, 5907), (419, 5886), (446, 5832),

Gene: Xavier\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Xavier\_6:

(Start: 190 @3918 has 256 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Xincheng\_7 Start: 5906, Stop: 5340, Start Num: 192

Candidate Starts for Xincheng\_7:

(124, 6038), (134, 6020), (Start: 163 @5966 has 1 MA's), (168, 5960), (183, 5930), (Start: 192 @5906 has 60 MA's), (231, 5846), (269, 5792), (Start: 280 @5750 has 4 MA's), (319, 5669), (337, 5627), (343, 5603), (349, 5588), (356, 5564), (357, 5561), (374, 5501), (403, 5435), (404, 5432), (410, 5420), (412, 5417), (442, 5363),

Gene: Xkcd426\_61 Start: 53906, Stop: 54505, Start Num: 212

Candidate Starts for Xkcd426\_61:

(101, 53699), (Start: 212 @53906 has 10 MA's), (226, 53921), (254, 53981), (285, 54056), (291, 54068), (356, 54233), (374, 54296), (390, 54344), (392, 54347), (398, 54368), (410, 54395), (417, 54410), (446, 54467),

Gene: YDN12\_59 Start: 47595, Stop: 48179, Start Num: 212

Candidate Starts for YDN12\_59:

(127, 47472), (Start: 212 @47595 has 10 MA's), (254, 47646), (267, 47670), (278, 47697), (285, 47721), (296, 47742), (317, 47781), (328, 47814), (342, 47853), (347, 47868), (357, 47898), (374, 47958), (375, 47961), (383, 47988), (390, 48006), (392, 48009), (398, 48030), (410, 48057), (444, 48123),

Gene: Yago84\_5 Start: 4720, Stop: 4193, Start Num: 191

Candidate Starts for Yago84\_5:

(Start: 191 @4720 has 52 MA's), (253, 4645), (347, 4450), (348, 4447), (354, 4426), (362, 4402), (364, 4396), (374, 4357), (379, 4342), (384, 4324), (404, 4288), (410, 4276), (443, 4213),

Gene: Yahalom\_8 Start: 5486, Stop: 4863, Start Num: 156

Candidate Starts for Yahalom\_8:

(Start: 156 @5486 has 7 MA's), (Start: 191 @5414 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: Yinz\_8 Start: 5441, Stop: 4863, Start Num: 191

Candidate Starts for Yinz\_8:

(Start: 154 @5516 has 4 MA's), (Start: 163 @5498 has 1 MA's), (Start: 191 @5441 has 52 MA's), (Start: 252 @5333 has 1 MA's), (271, 5306), (Start: 280 @5267 has 4 MA's), (294, 5234), (304, 5222), (363, 5069), (374, 5027), (384, 4994), (403, 4961), (431, 4910), (443, 4883),

Gene: YorkOnyx\_68 Start: 50153, Stop: 50788, Start Num: 195

Candidate Starts for YorkOnyx\_68:

(Start: 195 @50153 has 56 MA's), (276, 50300), (320, 50390), (336, 50429), (339, 50444), (354, 50489), (357, 50498), (374, 50558), (384, 50591), (421, 50690),

Gene: Yoshand\_6 Start: 3916, Stop: 3362, Start Num: 190

Candidate Starts for Yoshand\_6:

(Start: 190 @3916 has 256 MA's), (Start: 220 @3871 has 3 MA's), (Start: 280 @3766 has 4 MA's), (319, 3691), (334, 3655), (337, 3649), (375, 3520), (378, 3511), (438, 3400),

Gene: YouGoGlencoco\_6 Start: 3915, Stop: 3361, Start Num: 190

Candidate Starts for YouGoGlencoco\_6:

(Start: 190 @3915 has 256 MA's), (Start: 220 @3870 has 3 MA's), (Start: 227 @3861 has 33 MA's), (Start: 280 @3765 has 4 MA's), (319, 3690), (334, 3654), (337, 3648), (375, 3519), (378, 3510), (438, 3399),

Gene: YungMoney\_63 Start: 49207, Stop: 49806, Start Num: 227

Candidate Starts for YungMoney\_63:

(Start: 227 @49207 has 33 MA's), (362, 49537), (374, 49582), (394, 49639), (404, 49672), (408, 49681), (425, 49711), (434, 49723), (447, 49759), (456, 49789),

Gene: Zagie\_54 Start: 41639, Stop: 41064, Start Num: 202

Candidate Starts for Zagie\_54:

(Start: 202 @41639 has 4 MA's), (242, 41570), (302, 41432), (309, 41423), (317, 41405), (354, 41297), (359, 41282), (362, 41273), (374, 41228), (414, 41141), (431, 41111), (443, 41087),

Gene: Zaider\_7 Start: 4148, Stop: 3594, Start Num: 190

Candidate Starts for Zaider\_7:

(Start: 190 @4148 has 256 MA's), (Start: 211 @4118 has 35 MA's), (Start: 220 @4103 has 3 MA's), (Start: 280 @3998 has 4 MA's), (319, 3923), (334, 3887), (337, 3881), (375, 3752), (378, 3743), (438, 3632),

Gene: Zarbodnamra\_79 Start: 46838, Stop: 47428, Start Num: 210

Candidate Starts for Zarbodnamra\_79:

(72, 46565), (78, 46586), (Start: 210 @46838 has 38 MA's), (321, 47060), (325, 47072), (328, 47078), (344, 47123), (351, 47141), (357, 47162), (369, 47204), (410, 47330), (446, 47402),

Gene: Zelda\_6 Start: 3918, Stop: 3364, Start Num: 190

Candidate Starts for Zelda\_6:

(Start: 190 @3918 has 256 MA's), (Start: 211 @3888 has 35 MA's), (Start: 220 @3873 has 3 MA's), (Start: 280 @3768 has 4 MA's), (319, 3693), (334, 3657), (337, 3651), (375, 3522), (378, 3513), (438, 3402),

Gene: Zemanar\_8 Start: 6294, Stop: 5680, Start Num: 170

Candidate Starts for Zemanar\_8:

(Start: 163 @6303 has 1 MA's), (Start: 170 @6294 has 4 MA's), (Start: 188 @6252 has 3 MA's), (Start: 192 @6243 has 60 MA's), (Start: 280 @6087 has 4 MA's), (283, 6075), (317, 6015), (334, 5973), (337, 5967), (339, 5955), (352, 5916), (356, 5904), (374, 5841), (384, 5808), (403, 5775), (404, 5772), (410, 5760), (412, 5757), (432, 5724), (442, 5703),

Gene: Zenteno07\_11 Start: 5106, Stop: 4525, Start Num: 190

Candidate Starts for Zenteno07\_11:

(Start: 181 @5127 has 2 MA's), (187, 5115), (Start: 190 @5106 has 256 MA's), (259, 4998), (269, 4983), (Start: 280 @4941 has 4 MA's), (319, 4863), (337, 4821), (343, 4797), (374, 4686), (375, 4683), (432, 4569), (443, 4545),

Gene: Zhafia\_56 Start: 41779, Stop: 41201, Start Num: 211

Candidate Starts for Zhafia\_56:

(94, 42022), (159, 41860), (Start: 211 @41779 has 35 MA's), (270, 41668), (309, 41563), (348, 41458), (362, 41413), (364, 41407), (374, 41368), (379, 41353), (404, 41299), (443, 41224),

Gene: ZiggyZoo\_76 Start: 48324, Stop: 48914, Start Num: 210

Candidate Starts for ZiggyZoo\_76:

(Start: 210 @48324 has 38 MA's), (321, 48546), (325, 48558), (328, 48564), (344, 48609), (351, 48627), (356, 48645), (357, 48648), (368, 48687), (369, 48690), (410, 48816),

Gene: Zipp\_67 Start: 51011, Stop: 51658, Start Num: 195

Candidate Starts for Zipp\_67:

(115, 50849), (119, 50855), (122, 50873), (Start: 170 @50960 has 4 MA's), (Start: 195 @51011 has 56 MA's), (237, 51089), (256, 51131), (258, 51137), (269, 51152), (289, 51203), (336, 51305), (339, 51320), (360, 51380), (362, 51389), (382, 51455), (384, 51464), (417, 51542), (434, 51569), (460, 51647),

Gene: Zitch\_68 Start: 49247, Stop: 49894, Start Num: 194

Candidate Starts for Zitch\_68:

(Start: 194 @49247 has 2 MA's), (237, 49325), (256, 49367), (258, 49373), (289, 49439), (336, 49541), (339, 49556), (360, 49616), (362, 49625), (382, 49691), (384, 49700), (417, 49778), (434, 49805), (460, 49883),

Gene: ZoMa\_49 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for ZoMa\_49:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Zombie\_50 Start: 36914, Stop: 37504, Start Num: 228

Candidate Starts for Zombie\_50:

(4, 36242), (5, 36245), (47, 36536), (68, 36665), (91, 36737), (149, 36860), (200, 36881), (203, 36887), (Start: 228 @36914 has 68 MA's), (248, 36962), (288, 37058), (302, 37085), (316, 37106), (318, 37112), (325, 37136), (356, 37223), (366, 37253), (374, 37286), (377, 37295), (391, 37334), (398, 37373), (410, 37400), (445, 37469),

Gene: Zonia\_6 Start: 3914, Stop: 3360, Start Num: 190

Candidate Starts for Zonia\_6:

(Start: 190 @3914 has 256 MA's), (Start: 220 @3869 has 3 MA's), (Start: 227 @3860 has 33 MA's), (Start: 280 @3764 has 4 MA's), (319, 3689), (334, 3653), (337, 3647), (375, 3518), (378, 3509), (438, 3398),

Gene: pZL12\_4c Start: 3305, Stop: 2700, Start Num: 173

Candidate Starts for pZL12\_4c:

(173, 3305), (283, 3113), (407, 2810), (432, 2768),

Gene: phiAsp2\_46 Start: 36920, Stop: 37414, Start Num: 259

Candidate Starts for phiAsp2\_46:

(105, 36587), (133, 36665), (137, 36671), (169, 36728), (259, 36920), (264, 36929), (274, 36947), (307, 37043), (311, 37052), (327, 37094), (333, 37109), (339, 37133), (373, 37250), (410, 37328), (424, 37355), (442, 37385), (443, 37388), (448, 37403),