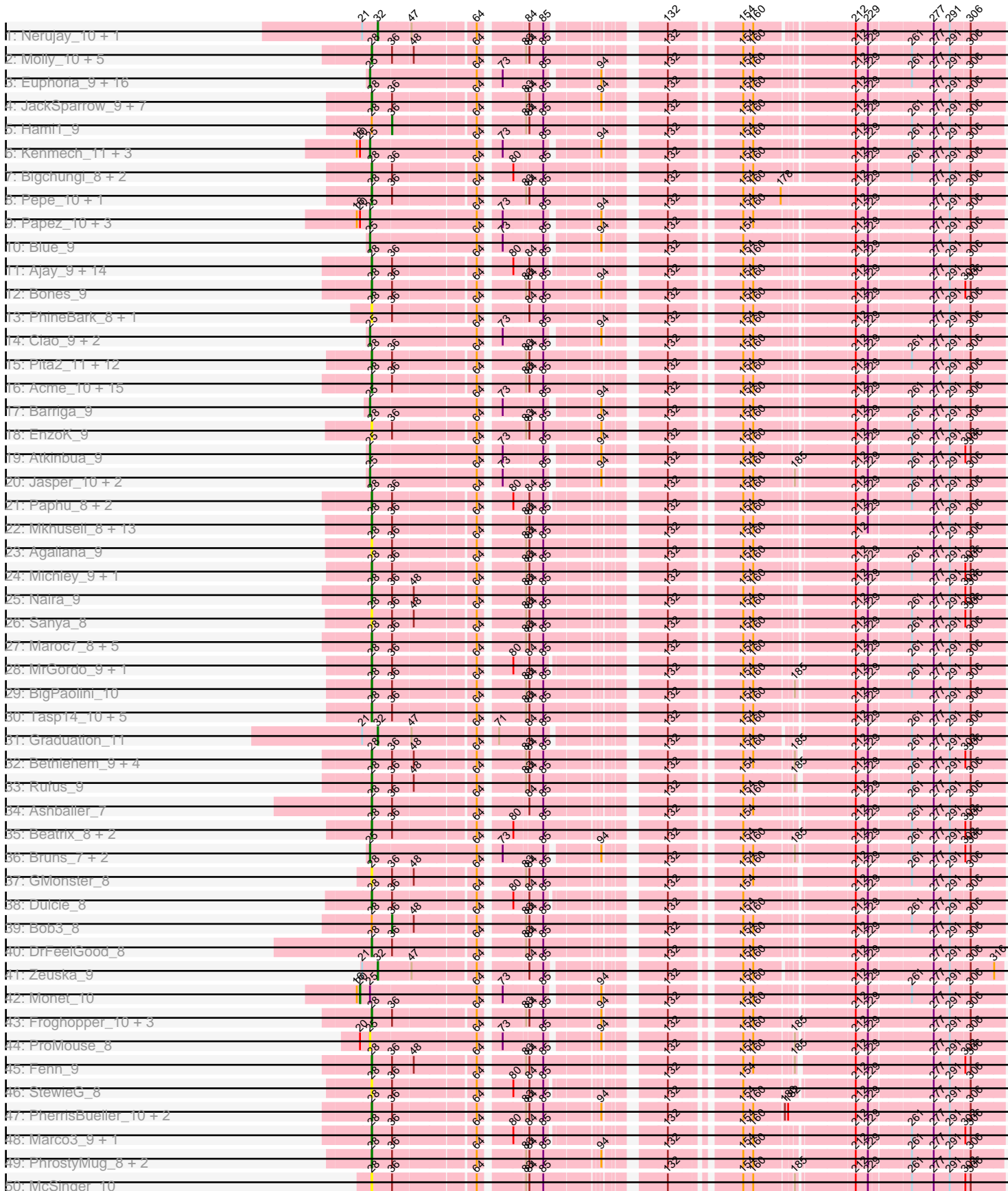
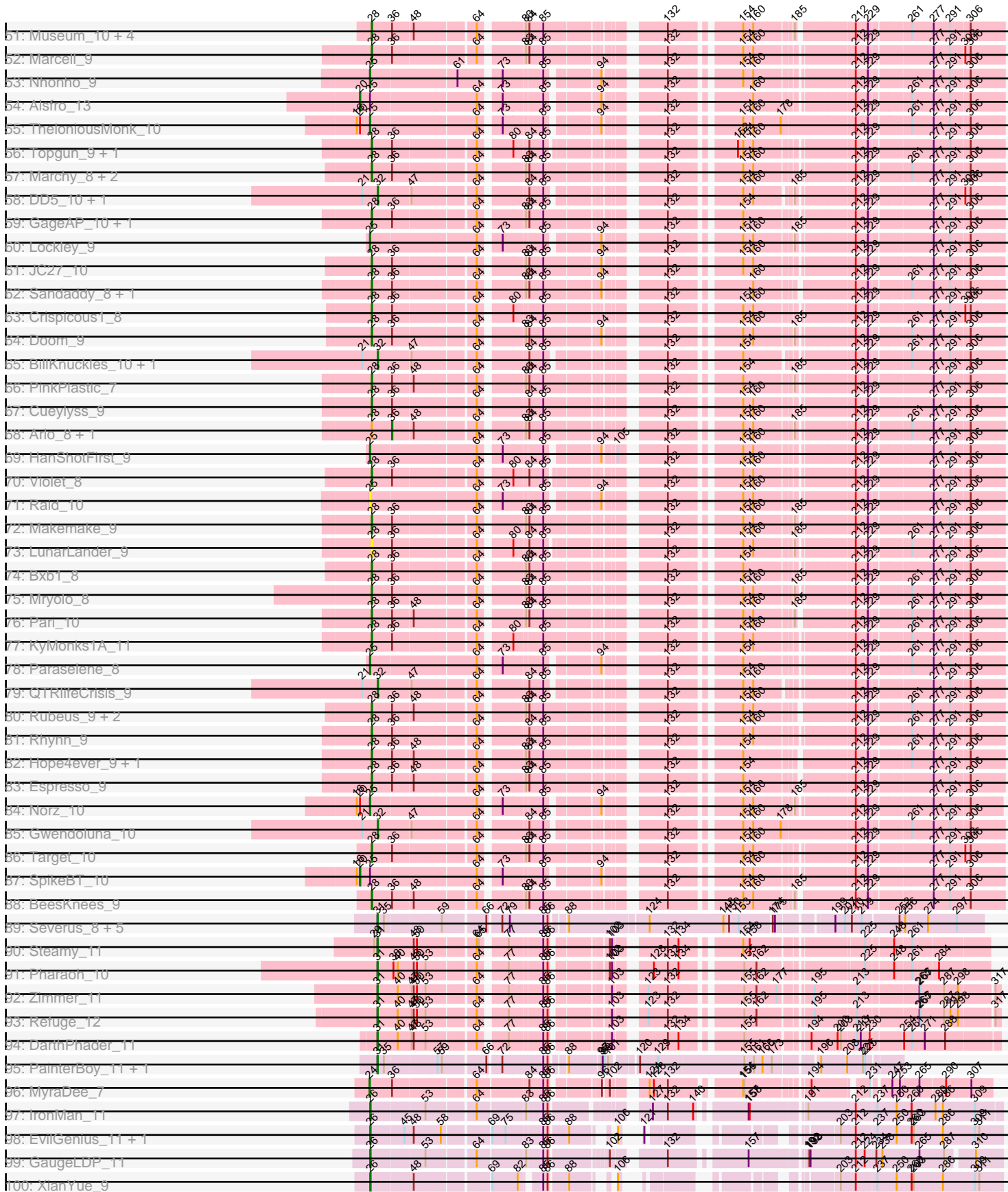


Pham 224144

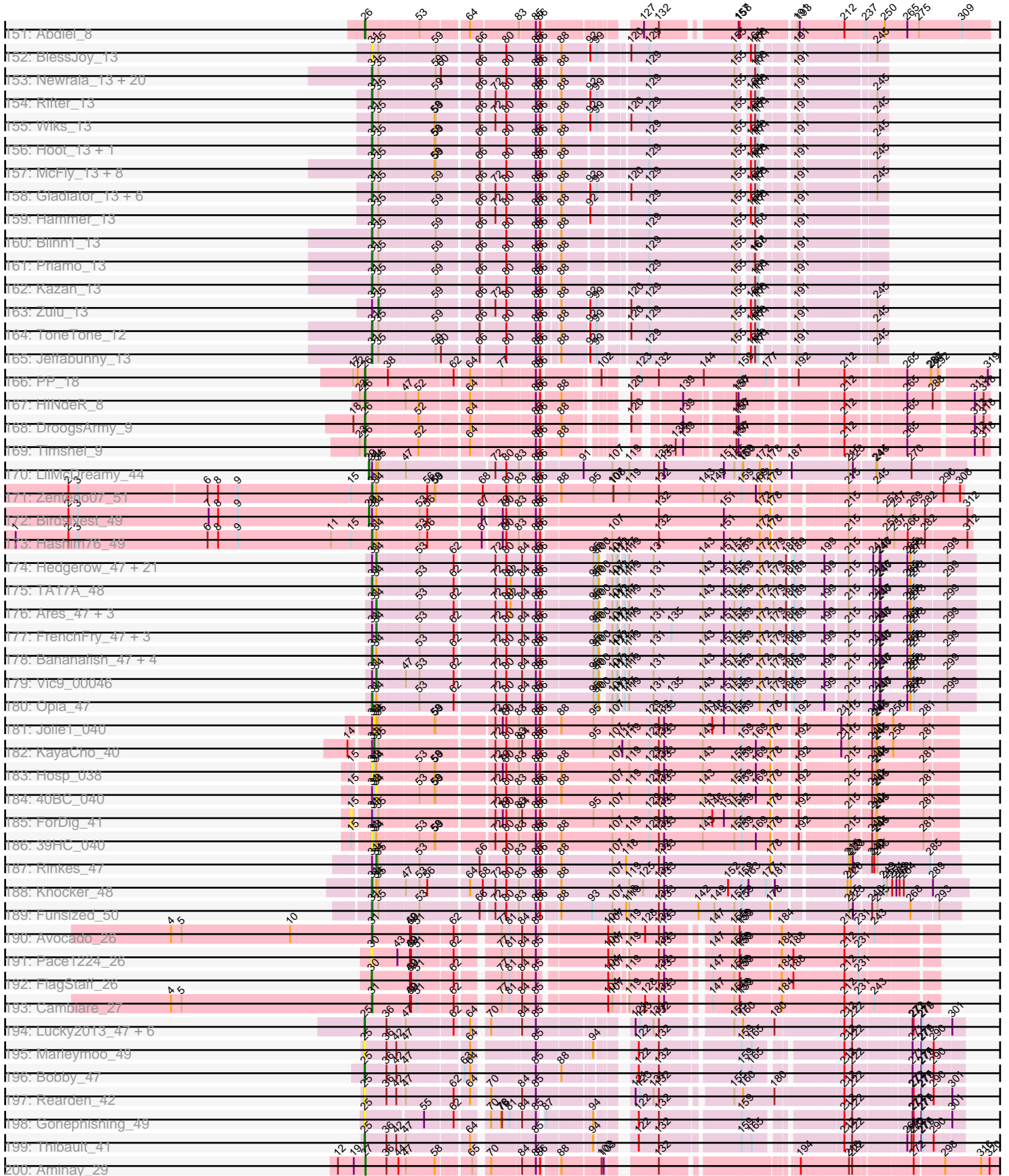


Pham 224144

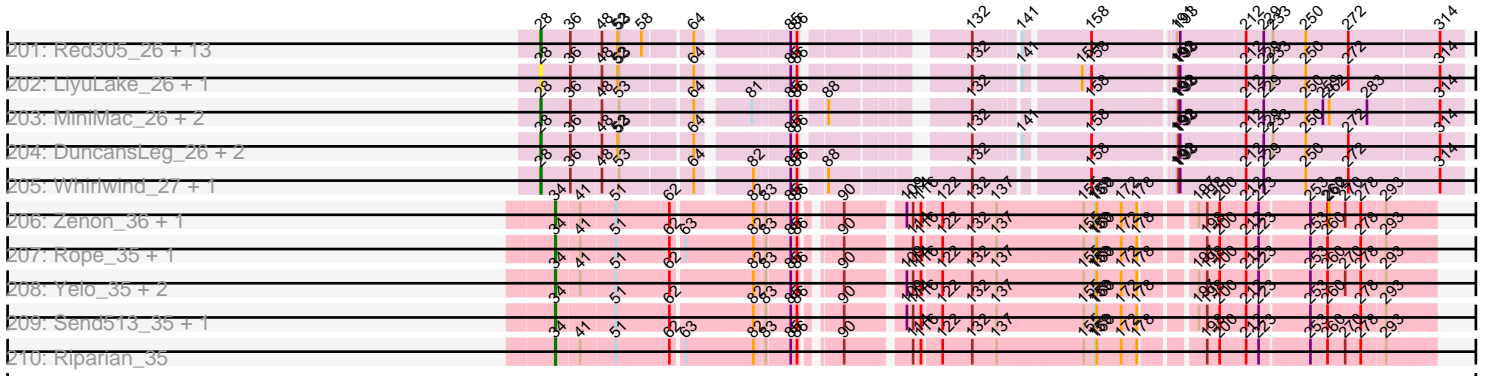




Pham 224144



Pham 224144



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 224144 Report

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

Pham number 224144 has 578 members, 55 are drafts.

Phages represented in each track:

- Track 1 : Nerujay\_10, KBG\_10
- Track 2 : Molly\_10, Petp2012\_11, Burton\_9, PascalRango\_8, BPBiEbs31\_10, KSSJEB\_8
- Track 3 : Euphoria\_9, Jerm2\_9, Zephyr\_9, MPlant7149\_8, PattyP\_10, BigMau\_10, BaconJack\_10, Niza\_10, Corvo\_9, Rohr\_10, HermioneGrange\_10, Carlyle\_11, Lopton\_10, Manatee\_9, MetalQZJ\_9, MaryBeth\_9, RidgeCB\_9
- Track 4 : JackSparrow\_9, Moose\_8, Trouble\_9, Perseus\_10, Sunshine924\_8, Applejack\_9, SwissCheese\_9, Forsytheast\_8
- Track 5 : Hami1\_9
- Track 6 : Kenmech\_11, Treddle\_10, Edtherson\_10, LiBib\_9
- Track 7 : Bigchung\_8, ShortQueendom\_7, Smairt\_10
- Track 8 : Pepe\_10, Pelly\_10
- Track 9 : Papez\_10, Hermia\_11, Gandalf20\_10, Buttons\_10
- Track 10 : Blue\_9
- Track 11 : Ajay\_9, Ringer\_8, BarrowTuph\_8, ILeeKay\_11, Smeagol\_10, PacerPaul\_9, SkiPole\_11, Kugel\_10, Ohno789\_8, Teodoridan\_7, Dussy\_10, AFIS\_9, Francis47\_9, Abbyshoes\_10, Peterson\_11
- Track 12 : Bones\_9
- Track 13 : PhineBark\_8, Levia\_7
- Track 14 : Ciao\_9, Fajezeel\_10, Greg\_10
- Track 15 : Pita2\_11, Lesedi\_8, Fushigi\_9, Inyanga\_8, Iqorha\_8, Tote\_11, Lamina13\_9, Swole\_11, PSullivan\_11, Marge\_9, Parliament\_8, JuliaChild\_11, Dexes\_10
- Track 16 : Acme\_10, Ruotula\_8, Seanderson\_10, Turj99\_8, Big3\_9, Magnar\_9, Adahisdi\_10, Pippin\_10, Scowl\_10, Abrogate\_100, Phlippers\_8, Sagefire\_10, Tripl3t\_10, Oogway\_8, Chanagan\_8, Homines\_9
- Track 17 : Barriga\_9
- Track 18 : EnzoK\_9
- Track 19 : Atkinbua\_9
- Track 20 : Jasper\_10, Marsha\_9, Licorice\_11
- Track 21 : Paphu\_8, Alvin\_10, Eyeball\_9
- Track 22 : Mkhuseli\_8, Altman\_10, Bircsak\_9, Watermelon\_11, A6\_07, HarryOW\_10, Gompeii16\_9, GrecoEtereo\_10, Anglerfish\_9, Traft412\_11, BK1\_07, Pinto\_11, Kanely\_10, ConceptII\_9
- Track 23 : Agaliana\_9
- Track 24 : Michley\_9, Zeeculate\_8
- Track 25 : Naira\_9

- Track 26 : Sanya\_8
- Track 27 : Maroc7\_8, Fascinus\_8, Thor\_9, CactusRose\_8, Wheeler\_9, SarFire\_9
- Track 28 : MrGordo\_9, Snazzy\_7
- Track 29 : BigPaolini\_10
- Track 30 : Tasp14\_10, Slagathor\_9, Magnito\_8, Rutherferd\_10, Kykar\_7, TwoPeat\_10
- Track 31 : Graduation\_11
- Track 32 : Bethlehem\_9, U2\_8, Ichabod\_9, Briton15\_10, Switzer\_9
- Track 33 : Rufus\_9
- Track 34 : Ashballer\_7
- Track 35 : Beatrix\_8, Bexan\_8, StrongArm\_8
- Track 36 : Bruns\_7, Sumter\_8, DreamCatcher\_10
- Track 37 : GMonster\_8
- Track 38 : Dulcie\_8
- Track 39 : Bob3\_8
- Track 40 : DrFeelGood\_8
- Track 41 : Zeuska\_9
- Track 42 : Monet\_10
- Track 43 : Froghopper\_10, IgnatiusPatJac\_8, Petruchio\_9, BluSpix\_9
- Track 44 : ProMouse\_8
- Track 45 : Fenn\_9
- Track 46 : StewieG\_8
- Track 47 : PherrisBueller\_10, Dreamboat\_10, Jorgensen\_9
- Track 48 : Marco3\_9, STLscum\_10
- Track 49 : PhrostyMug\_8, Aeneas\_10, Mule\_8
- Track 50 : McSinger\_10
- Track 51 : Museum\_10, Seabiscuit\_10, McGuire\_9, Killigrew\_7, Dynamix\_9
- Track 52 : Marcell\_9
- Track 53 : Nhonho\_9
- Track 54 : Alsfro\_13
- Track 55 : TheloniousMonk\_10
- Track 56 : Topgun\_9, Wilkins\_9
- Track 57 : Marchy\_8, Payneful\_9, Bigfoot\_8
- Track 58 : DD5\_10, Squee\_9
- Track 59 : GageAP\_10, Gyzlar\_10
- Track 60 : Lockley\_9
- Track 61 : JC27\_10
- Track 62 : Sandaddy\_8, Sorpresa\_9
- Track 63 : Crispicous1\_8
- Track 64 : Doom\_9
- Track 65 : BillKnuckles\_10, Solon\_9
- Track 66 : PinkPlastic\_7
- Track 67 : Cueylyss\_9
- Track 68 : Arlo\_8, NEHalo\_9
- Track 69 : HanShotFirst\_9
- Track 70 : Violet\_8
- Track 71 : Raid\_10
- Track 72 : Makemake\_9
- Track 73 : LunarLander\_9
- Track 74 : Bxb1\_8
- Track 75 : Mryolo\_8
- Track 76 : Pari\_10
- Track 77 : KyMonks1A\_11

- Track 78 : Paraselene\_8
- Track 79 : QTRlifeCrisis\_9
- Track 80 : Rubeus\_9, Sibs6\_10, Rajelicia\_8
- Track 81 : Rhynn\_9
- Track 82 : Hope4ever\_9, Arcanine\_9
- Track 83 : Espresso\_9
- Track 84 : Norz\_10
- Track 85 : Gwendoluna\_10
- Track 86 : Target\_10
- Track 87 : SpikeBT\_10
- Track 88 : BeesKnees\_9
- Track 89 : Severus\_8, Drake94\_8, KittenMittens\_8, Poompha\_8, PeaceMeal1\_8, Trike\_7
- Track 90 : Steamy\_11
- Track 91 : Pharaoh\_10
- Track 92 : Zimmer\_11
- Track 93 : Refuge\_12
- Track 94 : DARTHPhader\_11
- Track 95 : PainterBoy\_11, Lucyedi\_11
- Track 96 : MyraDee\_7
- Track 97 : IronMan\_11
- Track 98 : EvilGenius\_11, KingCyrus\_11
- Track 99 : GaugeLDP\_11
- Track 100 : XianYue\_9
- Track 101 : Jerm\_11, Turbido\_11
- Track 102 : ChipMunk\_11
- Track 103 : TarsusIV\_9
- Track 104 : Herbertwm\_8
- Track 105 : Dignity\_11, AbbyPaige\_11, Bugsy\_11, Smeagan\_11, Leviathan\_11, Agape74\_11
- Track 106 : Whabigail7\_11
- Track 107 : BiancaTri92\_11, Leogania\_11
- Track 108 : Miko\_12
- Track 109 : Larenn\_10, Malec\_10
- Track 110 : Landor\_10, Bactobuster\_10
- Track 111 : Tristan\_10
- Track 112 : Rachaly\_12
- Track 113 : Phaded\_12, Jaan\_12
- Track 114 : LilTurb\_11
- Track 115 : Trooper\_9
- Track 116 : BabyBack\_11
- Track 117 : Pukovnik\_11
- Track 118 : JoshKayV\_11
- Track 119 : Lokk\_12
- Track 120 : Acolyte\_9
- Track 121 : BobSwaget\_12
- Track 122 : NothingSpecial\_11
- Track 123 : LittleGuy\_8
- Track 124 : Huxley\_8, Obama12\_8, Tinybot\_7
- Track 125 : HamSlice\_7, TiroTheta9\_8, LeoAvram\_8, Koreni\_7, OKaNui\_8, TroyPia\_8, JetBlade\_8, Relief\_8, Eagle\_7, Eapen\_8, Kingmustik0402\_8, Iceman\_8, Polymorphads\_8, TinaFeyge\_8, Spino\_8, NorthStar\_8, SenorClean\_7, Happiness\_8, Romney\_8, Nebs\_8, Wilbur\_8, Deano\_8, Flux\_8, Eurydice\_8



- Track 126 : Kamy\_8, Lorenzo\_8, Ohfah\_8, Kratak\_8, Maxo\_8, JoongJeon\_8, Phacado\_8, Albee\_8, Bombshell\_8, Maverick\_8, Phelipe\_8, Taquarus\_8, BellusTerra\_8, Commander\_8, TygerBlood\_8, Gadost\_8, Avle17\_8, Mayonnaise\_8, Melvin\_8, Palestino\_8, Caelakin\_8, DirtyDunning\_8, Kyee\_8, Cocoaberry\_8, Koan\_7, Bruiser\_8, Houdini22\_8, Nemo27\_8, BubbleTrouble\_8, Broseidon\_8, NotAPhaseMom\_8, Skipitt\_8, Shaka\_8, Chaph\_8, Mazhar510\_8, Wander\_8
- Track 127 : Wile\_8, Badger\_8, PetiteSangsue\_8, Cici\_8, Katalie136\_8, Xena\_8, Datway\_8, Achebe\_8, Backyardigan\_8
- Track 128 : AvatarAhPeg\_8
- Track 129 : Sabertooth\_8, CentreCat\_8, Clarenza\_8, Ruin\_8, Holli\_8, Connomayer\_8, Eros\_8, Peaches\_8, ICleared\_8, Wizard007\_8, MeeZee\_8, Millski\_8, Baby16\_8, Pipcraft\_8, Medusa\_8, Citius\_8, Bartimeaus\_8, LappelDuVide\_8, Roosevelt\_8, Funston\_8, KFPoly\_8, Lunsford\_9, Blackmoor\_8, Scamp\_8, PeterPeter\_8, Jaykayelowell\_8, Lemur\_8, Eris\_8, Druantia\_8, Thanksgivukkah\_8, Morrow\_8
- Track 130 : Cintron\_8, Kremtemulon\_8
- Track 131 : Florean\_8, LittleB\_8, Annyong\_8, YoSam321\_8
- Track 132 : Nyxis\_8
- Track 133 : Pumbaa\_8, Phighter1804\_8, LochMonster\_8
- Track 134 : SheldonCooper\_8, Iracema64\_8, LHTSCC\_8, Rosa24\_7, ChampagnePapi\_8, BangNhom\_7, Cerulean\_8
- Track 135 : Stasia\_9
- Track 136 : Ulysses\_7
- Track 137 : Alberto7\_9
- Track 138 : Stink\_8, Miramae\_8
- Track 139 : Phontbonne\_8
- Track 140 : Shygu2\_8
- Track 141 : Morpher26\_8, AbbysRanger\_8, Bumblebee11\_8
- Track 142 : Sparxx\_8
- Track 143 : Arturo\_7
- Track 144 : Cindaradix\_7
- Track 145 : Perplexer\_8
- Track 146 : Dhanush\_8
- Track 147 : Mundrea\_8
- Track 148 : Camperdownii\_7
- Track 149 : Noelle\_8
- Track 150 : Burger\_7
- Track 151 : Abdiel\_8
- Track 152 : BlessJoy\_13
- Track 153 : Newrala\_13, Cookiedough\_13, Isiphiwo\_13, Koko\_13, SuperCallie99\_13, Tucker\_13, JewelBug\_13, Pmask\_13, Jordennis\_13, Neeharika16\_13, Roksolana\_13, Helmet\_14, BABullseye\_13, Artemis2UCLA\_13, Temprado\_14, EricB\_13, Indra\_13, Hexamo\_13, SuperAwesome\_13, Polyphemus\_12, Garak\_14
- Track 154 : Rifter\_13
- Track 155 : Wiks\_13
- Track 156 : Hoot\_13, CloudWang3\_13
- Track 157 : McFly\_13, VohminGhazi\_13, SmellyB\_13, Dorothea\_13, Chartreuse\_13, DaVinci\_13, Kipper29\_13, Candra\_13, GreedyLawyer\_13
- Track 158 : Gladiator\_13, Yokurt\_13, Gruunaga\_13, WunderPhul\_13, Blue7\_13, Lilbunny\_13, Zaka\_13
- Track 159 : Hammer\_13
- Track 160 : Blinn1\_13

- Track 161 : Priamo\_13
- Track 162 : Kazan\_13
- Track 163 : Zulu\_13
- Track 164 : ToneTone\_12
- Track 165 : Jeffabunny\_13
- Track 166 : PP\_18
- Track 167 : HINdeR\_8
- Track 168 : DroogsArmy\_9
- Track 169 : Timshel\_9
- Track 170 : LilMcDreamy\_44
- Track 171 : Zenteno07\_51
- Track 172 : BirdsNest\_49
- Track 173 : Hashim76\_49
- Track 174 : Hedgerow\_47, Rhinoforte\_47, LilSmirk\_47, Boyle\_47, Eaglehorse\_47, Lars\_47, MasterPo\_47, Tres\_47, Tinciduntolum\_48, Holeinone\_47, PrinceCharming\_47, Kolhan\_47, Allegro\_47, Glass\_47, Lephleur\_47, Kheth\_47, Brownie5\_47, Calamitous\_47, Coffee\_47, Godines\_47, West99\_47, Laurie\_46
- Track 175 : TA17A\_48
- Track 176 : Ares\_47, Phantasmagoria\_47, LizLemon\_47, Faze9\_46
- Track 177 : FrenchFry\_47, Sabella\_46, ItsyBitsy1\_47, Kaleb\_47
- Track 178 : Bananafish\_47, Blocker23\_47, Qyrzula\_44, Arbiter\_46, Rosebush\_46
- Track 179 : Vic9\_00046
- Track 180 : Opia\_47
- Track 181 : Jolie1\_040
- Track 182 : KayaCho\_40
- Track 183 : Hosp\_038
- Track 184 : 40BC\_040
- Track 185 : ForDig\_41
- Track 186 : 39HC\_040
- Track 187 : Rinkes\_47
- Track 188 : Knocker\_48
- Track 189 : Funsized\_50
- Track 190 : Avocado\_26
- Track 191 : Pace1224\_26
- Track 192 : FlagStaff\_26
- Track 193 : Cambiare\_27
- Track 194 : Lucky2013\_47, Courthouse\_47, Porcelain\_46, Ariel\_47, Superphikiman\_47, Squint\_46, MiaZeal\_47
- Track 195 : Marleymoo\_49
- Track 196 : Bobby\_47
- Track 197 : Rearden\_42
- Track 198 : Gonephishing\_49
- Track 199 : Thibault\_41
- Track 200 : Aminay\_29
- Track 201 : Red305\_26, Jubie\_26, Bellis\_26, Snenia\_26, Finnry\_26, Clautastrophe\_26, TriFive\_26, Nicholas\_26, Moostard\_26, Lumos\_26, Samty\_26, Kingsolomon\_26, MsGreen\_26, Jobypre\_26
- Track 202 : LiyuLake\_26, Ellson\_26
- Track 203 : MiniMac\_26, MiniLon\_26, Lolly9\_26
- Track 204 : DuncansLeg\_26, BourbonZero\_25, KirDoubleO7\_24
- Track 205 : Whirlwind\_27, Krypton555\_26
- Track 206 : Zenon\_36, Nilo\_36
- Track 207 : Rope\_35, Papyrus\_35

- Track 208 : Yelo\_35, Weiss13\_35, MontyDev\_35
- Track 209 : Send513\_35, Candle\_35
- Track 210 : Riparian\_35

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

The start number called the most often in the published annotations is 26, it was called in 172 of the 523 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyPaige\_11, AbbysRanger\_8, Abdiel\_8, Achebe\_8, Acolyte\_9, Agape74\_11, Albee\_8, Alberto7\_9, Annyong\_8, Arturo\_7, AvatarAhPeg\_8, Avle17\_8, Baby16\_8, BabyBack\_11, Backyardigan\_8, Bactobuster\_10, Badger\_8, BangNhom\_7, Bartimeaus\_8, BellusTerra\_8, BiancaTri92\_11, Blackmoor\_8, BobSwaget\_12, Bombshell\_8, Broseidon\_8, Bruiser\_8, BubbleTrouble\_8, Buggy\_11, Bumblebee11\_8, Burger\_7, Caelakin\_8, Camperdownii\_7, CentreCat\_8, Cerulean\_8, ChampagnePapi\_8, Chaph\_8, ChipMunk\_11, Cici\_8, Cindaradix\_7, Cintron\_8, Citius\_8, Clarenza\_8, Cocoaberry\_8, Commander\_8, Connomayer\_8, Datway\_8, Deano\_8, Dhanush\_8, Dignity\_11, DirtyDunning\_8, DroogsArmy\_9, Druantia\_8, Eagle\_7, Eapen\_8, Eris\_8, Eros\_8, Eurydice\_8, EvilGenius\_11, Floean\_8, Flux\_8, Funston\_8, Gadost\_8, GaugeLDP\_11, HINdeR\_8, HamSlice\_7, Happiness\_8, Holli\_8, Houdini22\_8, ICleared\_8, Iceman\_8, Iracema64\_8, IronMan\_11, Jaan\_12, Jaykayelowell\_8, Jerm\_11, JetBlade\_8, JoongJeon\_8, JoshKayV\_11, KFPoly\_8, Kampy\_8, Katalie136\_8, KingCyrus\_11, Kingmustik0402\_8, Koan\_7, Koreni\_7, Kratak\_8, Kremtemulon\_8, Kye\_8, LHTSCC\_8, Landor\_10, LappelDuVide\_8, Lemur\_8, LeoAvram\_8, Leogania\_11, Leviathan\_11, LilTurb\_11, LittleB\_8, LittleGuy\_8, LochMonster\_8, Loka\_12, Lorenzo\_8, Lunsford\_9, Maverick\_8, Maxo\_8, Mayonnaise\_8, Mazhar510\_8, Medusa\_8, MeeZee\_8, Melvin\_8, Miko\_12, Millski\_8, Miramae\_8, Morpher26\_8, Morrow\_8, Mundrea\_8, Nebs\_8, Nemo27\_8, Noelle\_8, NorthStar\_8, NotAPhaseMom\_8, NothingSpecial\_11, Nyxis\_8, OKaNui\_8, Ohfah\_8, PP\_18, Palestino\_8, Peaches\_8, Perplexer\_8, PeterPeter\_8, PetiteSangsue\_8, Phacado\_8, Phaded\_12, Phelipe\_8, Phighter1804\_8, Phontbonne\_8, Pipcraft\_8, Polymorphads\_8, Pukovnik\_11, Pumbaa\_8, Rachaly\_12, Relief\_8, Romney\_8, Roosevelt\_8, Rosa24\_7, Ruin\_8, Sabertooth\_8, Scamp\_8, SeniorClean\_7, Shaka\_8, SheldonCooper\_8, Shygu2\_8, Skipitt\_8, Smeagan\_11, Sparxx\_8, Spino\_8, Stasia\_9, Stink\_8, Taquarus\_8, TarsusIV\_9, Thanksgivukkah\_8, Timshel\_9, TinaFeyge\_8, TiroTheta9\_8, Tristan\_10, Trooper\_9, TroyPia\_8, Turbido\_11, TygerBlood\_8, Ulysses\_7, Wander\_8, Whabigail7\_11, Wilbur\_8, Wile\_8, Wizard007\_8, Xena\_8, XianYue\_9, YoSam321\_8,

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

- Huxley\_8, Obama12\_8, Tinybot\_7,

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

- 39HC\_040, 40BC\_040, A6\_07, AFIS\_9, Abbyshoes\_10, Abrogate\_100, Acme\_10, Adahisdi\_10, Aeneas\_10, Agaliana\_9, Ajay\_9, Allegro\_47, Alsfro\_13, Altman\_10, Alvin\_10, Aminay\_29, Anglerfish\_9, Applejack\_9, Arbiter\_46, Arcanine\_9, Ares\_47, Ariel\_47, Arlo\_8, Artemis2UCLA\_13, Ashballer\_7, Atkinbua\_9, Avocado\_26, BABullseye\_13, BK1\_07, BPBiebs31\_10, BaconJack\_10, Bananafish\_47, Barriga\_9, BarrowTuph\_8, Beatrix\_8, BeesKnees\_9, Bellis\_26, Bethlehem\_9, Bexan\_8, Big3\_9,

BigMau\_10, BigPaolini\_10, Bigchung\_8, Bigfoot\_8, BillKnuckles\_10, Bircsak\_9, BirdsNest\_49, BlessJoy\_13, Blinn1\_13, Blocker23\_47, BluSpix\_9, Blue7\_13, Blue\_9, Bob3\_8, Bobby\_47, Bones\_9, BourbonZero\_25, Boyle\_47, Briton15\_10, Brownie5\_47, Bruns\_7, Burton\_9, Buttons\_10, Bxb1\_8, CactusRose\_8, Calamitous\_47, Cambiare\_27, Candle\_35, Candra\_13, Carlyle\_11, Chanagan\_8, Chartreuse\_13, Ciao\_9, Clautastrophe\_26, CloudWang3\_13, Coffee\_47, Conceptll\_9, Cookiedough\_13, Corvo\_9, Courthouse\_47, Crispicious1\_8, Cueyllyss\_9, DD5\_10, DaVinci\_13, DARTHPhader\_11, Dexes\_10, Doom\_9, Dorothea\_13, DrFeelGood\_8, Drake94\_8, DreamCatcher\_10, Dreamboat\_10, Dulcie\_8, DuncansLeg\_26, Dussy\_10, Dynamix\_9, Eaglehorse\_47, Edtherson\_10, Ellson\_26, EnzoK\_9, EricB\_13, Espresso\_9, Euphoria\_9, Eyeball\_9, Fajezeel\_10, Fascinus\_8, Faze9\_46, Fenn\_9, Finnry\_26, FlagStaff\_26, ForDig\_41, Forsytheast\_8, Francis47\_9, FrenchFry\_47, FrogHopper\_10, Funsized\_50, Fushigi\_9, GMonster\_8, GageAP\_10, Gandalf20\_10, Garak\_14, Gladiator\_13, Glass\_47, Godines\_47, Gompeii16\_9, Gonephishing\_49, Graduation\_11, GrecoEtereo\_10, GreedyLawyer\_13, Greg\_10, Gruunaga\_13, Gwendoluna\_10, Gyzlar\_10, Hami1\_9, Hammer\_13, HanShotFirst\_9, HarryOW\_10, Hashim76\_49, Hedgerow\_47, Helmet\_14, Herbertwm\_8, Hermia\_11, HermioneGrange\_10, Hexamo\_13, Holeinone\_47, Homines\_9, Hoot\_13, Hope4ever\_9, Hosp\_038, ILeeKay\_11, Ichabod\_9, IgnatiusPatJac\_8, Indra\_13, Inyanga\_8, Iqorha\_8, Isiphiwo\_13, ItsyBitsy1\_47, JC27\_10, JackSparrow\_9, Jasper\_10, Jeffabunny\_13, Jerm2\_9, JewelBug\_13, Jobypre\_26, Jolie1\_040, Jordennis\_13, Jorgensen\_9, Jubie\_26, JuliaChild\_11, KBG\_10, KSSJEB\_8, Kaleb\_47, Kanely\_10, KayaCho\_40, Kazan\_13, Kenmech\_11, Kheth\_47, Killigrew\_7, Kingsolomon\_26, Kipper29\_13, KirDoubleO7\_24, KittenMittens\_8, Knocker\_48, Koko\_13, Kolhan\_47, Krypton555\_26, Kugel\_10, KyMonks1A\_11, Kykar\_7, Lamina13\_9, Larenn\_10, Lars\_47, Laurie\_46, Lephleur\_47, Lesedi\_8, Levia\_7, Licorice\_11, LilBib\_9, LilMcDreamy\_44, LilSmirk\_47, Lilbunny\_13, LiyuLake\_26, LizLemon\_47, Lockley\_9, Lolly9\_26, Lopton\_10, Lucky2013\_47, Lucyedi\_11, Lumos\_26, LunarLander\_9, MPlant7149\_8, Magnar\_9, Magnito\_8, Makemake\_9, Malec\_10, Manatee\_9, Marcell\_9, Marchy\_8, Marco3\_9, Marge\_9, Marleymoo\_49, Maroc7\_8, Marsha\_9, MaryBeth\_9, MasterPo\_47, McFly\_13, McGuire\_9, McSinger\_10, MetalQZJ\_9, MiaZeal\_47, Michley\_9, MiniLon\_26, MiniMac\_26, Mkhuseleli\_8, Molly\_10, Monet\_10, MontyDev\_35, Moose\_8, Moostard\_26, MrGordo\_9, Mryolo\_8, MsGreen\_26, Mule\_8, Museum\_10, MyraDee\_7, NEHalo\_9, Naira\_9, Neeharika16\_13, Nerujay\_10, Newrala\_13, Nhonho\_9, Nicholas\_26, Nilo\_36, Niza\_10, Norz\_10, Ohno789\_8, Oogway\_8, Opia\_47, PSullivan\_11, Pace1224\_26, PacerPaul\_9, PainterBoy\_11, Papez\_10, Paphu\_8, Papyrus\_35, Paraselene\_8, Pari\_10, Parliament\_8, PascalRango\_8, PattyP\_10, Payneful\_9, PeaceMeal1\_8, Pelly\_10, Pepe\_10, Perseus\_10, Peterson\_11, Petp2012\_11, Petruchio\_9, Phantasmagoria\_47, Pharaoh\_10, PherrisBueller\_10, PhineBark\_8, Phlippers\_8, PhrostyMug\_8, PinkPlastic\_7, Pinto\_11, Pippin\_10, Pita2\_11, Pmask\_13, Polyphemus\_12, Poompha\_8, Porcelain\_46, Priamo\_13, PrinceCharming\_47, ProMouse\_8, QTRLifeCrisis\_9, Qyrzula\_44, Raid\_10, Rajelicia\_8, Rearden\_42, Red305\_26, Refuge\_12, Rhinoforte\_47, Rhynn\_9, RidgeCB\_9, Rifter\_13, Ringer\_8, Rinkes\_47, Riparian\_35, Rohr\_10, Roksolana\_13, Rope\_35, Rosebush\_46, Rubeus\_9, Rufus\_9, Ruotula\_8, Rutherford\_10, STLScum\_10, Sabella\_46, Sagefire\_10, Samty\_26, Sandaddy\_8, Sanya\_8, SarFire\_9, Scowl\_10, Seabiscuit\_10, Seanderson\_10, Send513\_35, Severus\_8, ShortQueendom\_7, Sibs6\_10, SkiPole\_11, Slagathor\_9, Smairt\_10, Smeagol\_10, SmellyB\_13, Snazzy\_7, Snenia\_26, Solon\_9, Sorpresa\_9, SpikeBT\_10, Squee\_9, Squint\_46, Steamy\_11, StewieG\_8, StrongArm\_8, Sumter\_8, Sunshine924\_8, SuperAwesome\_13, SuperCallie99\_13, Superphikiman\_47, SwissCheese\_9, Switzer\_9, Swole\_11, TA17A\_48, Target\_10, Tasp14\_10,

Temprado\_14, Teodoridan\_7, TheloniousMonk\_10, Thibault\_41, Thor\_9, Tinciduntolum\_48, ToneTone\_12, Topgun\_9, Tote\_11, Traft412\_11, Treddle\_10, Tres\_47, TriFive\_26, Trike\_7, Tripl3t\_10, Trouble\_9, Tucker\_13, Turj99\_8, TwoPeat\_10, U2\_8, Vic9\_00046, Violet\_8, VohminGhazi\_13, Watermelon\_11, Weiss13\_35, West99\_47, Wheeler\_9, Whirlwind\_27, Wiks\_13, Wilkins\_9, WunderPhul\_13, Yelo\_35, Yokurt\_13, Zaka\_13, Zeeculate\_8, Zenon\_36, Zenteno07\_51, Zephyr\_9, Zeuska\_9, Zimmer\_11, Zulu\_13,

### Summary by start number:

#### Start 15:

- Found in 6 of 578 ( 1.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: ForDig\_41 (B6),

#### Start 20:

- Found in 14 of 578 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 3 of 523
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Alsfro\_13 (A1), Monet\_10 (A1), SpikeBT\_10 (A1),

#### Start 24:

- Found in 1 of 578 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee\_7 (A18),

#### Start 25:

- Found in 60 of 578 ( 10.4% ) of genes in pham
- Manual Annotations of this start: 52 of 523
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Ariel\_47 (J), Atkinbua\_9 (A1), BaconJack\_10 (A1), Barriga\_9 (A1), BigMau\_10 (A1), Blue\_9 (A1), Bobby\_47 (J), Bruns\_7 (A1), Buttons\_10 (A1), Carlyle\_11 (A1), Ciao\_9 (A1), Corvo\_9 (A1), Courthouse\_47 (J), DreamCatcher\_10 (A1), Edtherson\_10 (A1), Euphoria\_9 (A1), Fajezeel\_10 (A1), Gandalf20\_10 (A1), Gonephishing\_49 (J), Greg\_10 (A1), HanShotFirst\_9 (A1), Hermia\_11 (A1), HermioneGrange\_10 (A1), Jasper\_10 (A1), Jerm2\_9 (A1), Kenmech\_11 (A1), Licorice\_11 (A1), LilBib\_9 (A1), Lockley\_9 (A1), Lopton\_10 (A1), Lucky2013\_47 (J), MPlant7149\_8 (A1), Manatee\_9 (A1), Marleymoo\_49 (J), Marsha\_9 (A1), MaryBeth\_9 (A1), MetalQZJ\_9 (A1), MiaZeal\_47 (J), Nhonho\_9 (A1), Niza\_10 (A1), Norz\_10 (A1), Papez\_10 (A1), Paraselene\_8 (A1), PattyP\_10 (A1), Porcelain\_46 (J), ProMouse\_8 (A1), Raid\_10 (A1), Rearden\_42 (J), RidgeCB\_9 (A1), Rohr\_10 (A1), Squint\_46 (J), Sumter\_8 (A1), Superphikiman\_47 (J), TheloniousMonk\_10 (A1), Thibault\_41 (J), Treddle\_10 (A1), Zephyr\_9 (A1),

#### Start 26:

- Found in 180 of 578 ( 31.1% ) of genes in pham
- Manual Annotations of this start: 172 of 523
- Called 98.3% of time when present
- Phage (with cluster) where this start called: AbbyPaige\_11 (A2), AbbysRanger\_8 (A4), Abdiel\_8 (A4), Achebe\_8 (A4), Acolyte\_9 (A2), Agape74\_11 (A2), Albee\_8 (A4),

Alberto7\_9 (A4), Annyong\_8 (A4), Arturo\_7 (A4), AvatarAhPeg\_8 (A4), Avle17\_8 (A4), Baby16\_8 (A4), BabyBack\_11 (A2), Backyardigan\_8 (A4), Bactobuster\_10 (A2), Badger\_8 (A4), BangNhom\_7 (A4), Bartimeaus\_8 (A4), BellusTerra\_8 (A4), BiancaTri92\_11 (A2), Blackmoor\_8 (A4), BobSwaget\_12 (A2), Bombshell\_8 (A4), Broseidon\_8 (A4), Bruiser\_8 (A4), BubbleTrouble\_8 (A4), Buggy\_11 (A2), Bumblebee11\_8 (A4), Burger\_7 (A4), Caelakin\_8 (A4), Camperdownii\_7 (A4), CentreCat\_8 (A4), Cerulean\_8 (A4), ChampagnePapi\_8 (A4), Chaph\_8 (A4), ChipMunk\_11 (A2), Cici\_8 (A4), Cindaradix\_7 (A4), Cintron\_8 (A4), Citius\_8 (A4), Clarenza\_8 (A4), Cocoaberry\_8 (A4), Commander\_8 (A4), Connomayer\_8 (A4), Datway\_8 (A4), Deano\_8 (A4), Dhanush\_8 (A4), Dignity\_11 (A2), DirtyDunning\_8 (A4), DroogsArmy\_9 (A7), Druantia\_8 (A4), Eagle\_7 (A4), Eapen\_8 (A4), Eris\_8 (A4), Eros\_8 (A4), Eurydice\_8 (A4), EvilGenius\_11 (A2), Florean\_8 (A4), Flux\_8 (A4), Funston\_8 (A4), Gadost\_8 (A4), GaugeLDP\_11 (A2), HINdeR\_8 (A7), HamSlice\_7 (A4), Happiness\_8 (A4), Holli\_8 (A4), Houdini22\_8 (A4), ICleared\_8 (A4), Iceman\_8 (A4), Iracema64\_8 (A4), IronMan\_11 (A2), Jaan\_12 (A2), Jaykayelowell\_8 (A4), Jerm\_11 (A2), JetBlade\_8 (A4), JoongJeon\_8 (A4), JoshKayV\_11 (A2), KFPoly\_8 (A4), Kampy\_8 (A4), Katalie136\_8 (A4), KingCyrus\_11 (A2), Kingmustik0402\_8 (A4), Koan\_7 (A4), Koreni\_7 (A4), Kratark\_8 (A4), Kremtemulon\_8 (A4), Kye\_8 (A4), LHTSCC\_8 (A4), Landor\_10 (A2), LappelDuVide\_8 (A4), Lemur\_8 (A4), LeoAvram\_8 (A4), Leogania\_11 (A2), Leviathan\_11 (A2), LilTurb\_11 (A2), LittleB\_8 (A4), LittleGuy\_8 (A4), LochMonster\_8 (A4), Lokk\_12 (A2), Lorenzo\_8 (A4), Lunsford\_9 (A4), Maverick\_8 (A4), Maxo\_8 (A4), Mayonnaise\_8 (A4), Mazhar510\_8 (A4), Medusa\_8 (A4), MeeZee\_8 (A4), Melvin\_8 (A4), Miko\_12 (A2), Millski\_8 (A4), Miramae\_8 (A4), Morpher26\_8 (A4), Morrow\_8 (A4), Mundrea\_8 (A4), Nebs\_8 (A4), Nemo27\_8 (A4), Noelle\_8 (A4), NorthStar\_8 (A4), NotAPhaseMom\_8 (A4), NothingSpecial\_11 (A2), Nyxis\_8 (A4), OKaNui\_8 (A4), Ohfah\_8 (A4), PP\_18 (A7), Palestino\_8 (A4), Peaches\_8 (A4), Perplexer\_8 (A4), PeterPeter\_8 (A4), PetiteSangsue\_8 (A4), Phacado\_8 (A4), Phaded\_12 (A2), Phelipe\_8 (A4), Phighter1804\_8 (A4), Phontbonne\_8 (A4), Pipcraft\_8 (A4), Polymorphads\_8 (A4), Pukovnik\_11 (A2), Pumbaa\_8 (A4), Rachaly\_12 (A2), Relief\_8 (A4), Romney\_8 (A4), Roosevelt\_8 (A4), Rosa24\_7 (A4), Ruin\_8 (A4), Sabertooth\_8 (A4), Scamp\_8 (A4), SenorClean\_7 (A4), Shaka\_8 (A4), SheldonCooper\_8 (A4), Shygu2\_8 (A4), Skipitt\_8 (A4), Smeagan\_11 (A2), Sparxx\_8 (A4), Spino\_8 (A4), Stasia\_9 (A4), Stink\_8 (A4), Taquarus\_8 (A4), TarsusIV\_9 (A2), Thanksgivukkah\_8 (A4), Timshel\_9 (A7), TinaFeyge\_8 (A4), TiroTheta9\_8 (A4), Tristan\_10 (A2), Trooper\_9 (A2), TroyPia\_8 (A4), Turbido\_11 (A2), TygerBlood\_8 (A4), Ulysses\_7 (A4), Wander\_8 (A4), Whabigail7\_11 (A2), Wilbur\_8 (A4), Wile\_8 (A4), Wizard007\_8 (A4), Xena\_8 (A4), XianYue\_9 (A2), YoSam321\_8 (A4),

#### Start 27:

- Found in 1 of 578 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay\_29 (K7),

#### Start 28:

- Found in 196 of 578 ( 33.9% ) of genes in pham
- Manual Annotations of this start: 166 of 523
- Called 98.0% of time when present
- Phage (with cluster) where this start called: A6\_07 (A1), AFIS\_9 (A1), Abbyshoes\_10 (A1), Abrogate\_100 (A1), Acme\_10 (A1), Adahisdi\_10 (A1), Aeneas\_10 (A1), Agaliana\_9 (A1), Ajay\_9 (A1), Altman\_10 (A1), Alvin\_10 (A1), Anglerfish\_9 (A1), Applejack\_9 (A1), Arcanine\_9 (A1), Ashballer\_7 (A1), BK1\_07

(A1), BPBiabs31\_10 (A1), BarrowTuph\_8 (A1), Beatrix\_8 (A1), BeesKnees\_9 (A1), Bellis\_26 (L3), Bethlehem\_9 (A1), Bexan\_8 (A1), Big3\_9 (A1), BigPaolini\_10 (A1), Bigchung\_8 (A1), Bigfoot\_8 (A1), Bircsak\_9 (A1), BluSpix\_9 (A1), Bones\_9 (A1), BourbonZero\_25 (L3), Briton15\_10 (A1), Burton\_9 (A1), Bxb1\_8 (A1), CactusRose\_8 (A1), Chanagan\_8 (A1), Clautastrophe\_26 (L3), Conceptll\_9 (A1), Crispicous1\_8 (A1), Cueyllyss\_9 (A1), Dexes\_10 (A1), Doom\_9 (A1), DrFeelGood\_8 (A1), Dreamboat\_10 (A1), Dulcie\_8 (A1), DuncansLeg\_26 (L3), Dussy\_10 (A1), Dynamix\_9 (A1), Ellson\_26 (L3), EnzoK\_9 (A1), Espresso\_9 (A1), Eyeball\_9 (A1), Fascinus\_8 (A1), Fenn\_9 (A1), Finnry\_26 (L3), Forsytheast\_8 (A1), Francis47\_9 (A1), Froghopper\_10 (A1), Fushigi\_9 (A1), GMonster\_8 (A1), GageAP\_10 (A1), Gompei16\_9 (A1), GrecoEtereo\_10 (A1), Gyzlar\_10 (A1), HarryOW\_10 (A1), Homines\_9 (A1), Hope4ever\_9 (A1), ILeeKay\_11 (A1), Ichabod\_9 (A1), IgnatiusPatJac\_8 (A1), Inyanga\_8 (A1), Iqorha\_8 (A1), JC27\_10 (A1), JackSparrow\_9 (A1), Jobypre\_26 (L3), Jorgensen\_9 (A1), Jubie\_26 (L3), JuliaChild\_11 (A1), KSSJEB\_8 (A1), Kanely\_10 (A1), Killigrew\_7 (A1), Kingsolomon\_26 (L3), KirDoubleO7\_24 (L3), Krypton555\_26 (L3), Kugel\_10 (A1), KyMonks1A\_11 (A1), Kykar\_7 (A1), Lamina13\_9 (A1), Lesedi\_8 (A1), Levia\_7 (A1), LiyuLake\_26 (L3), Lolly9\_26 (L3), Lumos\_26 (L3), LunarLander\_9 (A1), Magnar\_9 (A1), Magnito\_8 (A1), Makemake\_9 (A1), Marcell\_9 (A1), Marchy\_8 (A1), Marco3\_9 (A1), Marge\_9 (A1), Maroc7\_8 (A1), McGuire\_9 (A1), McSinger\_10 (A1), Michley\_9 (A1), MiniLon\_26 (L3), MiniMac\_26 (L3), Mkhuseli\_8 (A1), Molly\_10 (A1), Moose\_8 (A1), Moostard\_26 (L3), MrGordo\_9 (A1), Mryolo\_8 (A1), MsGreen\_26 (L3), Mule\_8 (A1), Museum\_10 (A1), Naira\_9 (A1), Nicholas\_26 (L3), Ohno789\_8 (A1), Oogway\_8 (A1), PSullivan\_11 (A1), PacerPaul\_9 (A1), Paphu\_8 (A1), Pari\_10 (A1), Parliament\_8 (A1), PascalRango\_8 (A1), Payneful\_9 (A1), Pelly\_10 (A1), Pepe\_10 (A1), Perseus\_10 (A1), Peterson\_11 (A1), Petp2012\_11 (A1), Petruchio\_9 (A1), PherrisBueller\_10 (A1), PhineBark\_8 (A1), Phlippers\_8 (A1), PhrostyMug\_8 (A1), PinkPlastic\_7 (A1), Pinto\_11 (A1), Pippin\_10 (A1), Pita2\_11 (A1), Rajelicia\_8 (A1), Red305\_26 (L3), Rhynn\_9 (A1), Ringer\_8 (A1), Rubeus\_9 (A1), Rufus\_9 (A1), Ruotula\_8 (A1), Rutherferd\_10 (A1), STLscum\_10 (A1), Sagefire\_10 (A1), Samty\_26 (L3), Sandaddy\_8 (A1), Sanya\_8 (A1), SarFire\_9 (A1), Scowl\_10 (A1), Seabiscuit\_10 (A1), Seanderson\_10 (A1), ShortQueendom\_7 (A1), Sibs6\_10 (A1), SkiPole\_11 (A1), Slagathor\_9 (A1), Smairt\_10 (A1), Smeagol\_10 (A1), Snazzy\_7 (A1), Snenia\_26 (L3), Sorpresa\_9 (A1), StewieG\_8 (A1), StrongArm\_8 (A1), Sunshine924\_8 (A1), SwissCheese\_9 (A1), Switzer\_9 (A1), Swole\_11 (A1), Target\_10 (A1), Tasp14\_10 (A1), Teodoridan\_7 (A1), Thor\_9 (A1), Topgun\_9 (A1), Tote\_11 (A1), Traft412\_11 (A1), TriFive\_26 (L3), Tripl3t\_10 (A1), Trouble\_9 (A1), Turj99\_8 (A1), TwoPeat\_10 (A1), U2\_8 (A1), Violet\_8 (A1), Watermelon\_11 (A1), Wheeler\_9 (A1), Whirlwind\_27 (L3), Wilkins\_9 (A1), Zeeculate\_8 (A1),

#### Start 29:

- Found in 3 of 578 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 2 of 523
- Called 66.7% of time when present
- Phage (with cluster) where this start called: BirdsNest\_49 (B13), LilMcDreamy\_44 (B12),

#### Start 30:

- Found in 2 of 578 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FlagStaff\_26 (G2), Pace1224\_26 (G2),

#### Start 31:

- Found in 118 of 578 ( 20.4% ) of genes in pham
- Manual Annotations of this start: 70 of 523
- Called 66.9% of time when present
- Phage (with cluster) where this start called: 39HC\_040 (B6), Arbiter\_46 (B2), Artemis2UCLA\_13 (A6), Avocado\_26 (G2), BABullseye\_13 (A6), Bananafish\_47 (B2), BlessJoy\_13 (A6), Blinn1\_13 (A6), Blocker23\_47 (B2), Blue7\_13 (A6), Cambiare\_27 (G2), Candra\_13 (A6), Chartreuse\_13 (A6), CloudWang3\_13 (A6), Cookiedough\_13 (A6), DaVinci\_13 (A6), DarthPhader\_11 (A12), Dorothea\_13 (A6), Drake94\_8 (A10), EricB\_13 (A6), Funsized\_50 (B9), Garak\_14 (A6), Gladiator\_13 (A6), GreedyLawyer\_13 (A6), Gruunaga\_13 (A6), Hammer\_13 (A6), Hashim76\_49 (B13), Helmet\_14 (A6), Herbertwm\_8 (A2), Hexamo\_13 (A6), Hoot\_13 (A6), Hosp\_038 (B6), Indra\_13 (A6), Isiphiwo\_13 (A6), Jeffabunny\_13 (A6), JewelBug\_13 (A6), Jordennis\_13 (A6), Kazan\_13 (A6), Kipper29\_13 (A6), KittenMittens\_8 (A10), Knocker\_48 (B9), Koko\_13 (A6), Larenn\_10 (A2), Lilbunny\_13 (A6), Lucyedi\_11 (A16), Malec\_10 (A2), McFly\_13 (A6), Neeharika16\_13 (A6), Newrala\_13 (A6), Opia\_47 (B2), PainterBoy\_11 (A16), PeaceMeal1\_8 (A10), Pharaoh\_10 (A12), Pmask\_13 (A6), Polyphemus\_12 (A6), Poompha\_8 (A10), Priamo\_13 (A6), Qyrzula\_44 (B2), Refuge\_12 (A12), Rifter\_13 (A6), Roksolana\_13 (A6), Rosebush\_46 (B2), Severus\_8 (A10), SmellyB\_13 (A6), Steamy\_11 (A12), SuperAwesome\_13 (A6), SuperCallie99\_13 (A6), TA17A\_48 (B2), Temprado\_14 (A6), ToneTone\_12 (A6), Trike\_7 (A10), Tucker\_13 (A6), VohminGhazi\_13 (A6), Wiks\_13 (A6), WunderPhul\_13 (A6), Yokurt\_13 (A6), Zaka\_13 (A6), Zenteno07\_51 (B13), Zimmer\_11 (A12),

#### Start 32:

- Found in 10 of 578 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 10 of 523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillKnuckles\_10 (A1), DD5\_10 (A1), Graduation\_11 (A1), Gwendoluna\_10 (A1), KBG\_10 (A1), Nerujay\_10 (A1), QTRLifeCrisis\_9 (A1), Solon\_9 (A1), Squee\_9 (A1), Zeuska\_9 (A1),

#### Start 33:

- Found in 6 of 578 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 523
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Jolie1\_040 (B6), KayaCho\_40 (B6),

#### Start 34:

- Found in 58 of 578 ( 10.0% ) of genes in pham
- Manual Annotations of this start: 37 of 523
- Called 74.1% of time when present
- Phage (with cluster) where this start called: 40BC\_040 (B6), Allegro\_47 (B2), Ares\_47 (B2), Boyle\_47 (B2), Brownie5\_47 (B2), Calamitous\_47 (B2), Candle\_35 (R), Coffee\_47 (B2), Eaglehorse\_47 (B2), Faze9\_46 (B2), FrenchFry\_47 (B2), Glass\_47 (B2), Godines\_47 (B2), Hedgerow\_47 (B2), Holeinone\_47 (B2), ItsyBitsy1\_47 (B2), Kaleb\_47 (B2), Kheth\_47 (B2), Kolhan\_47 (B2), Lars\_47 (B2), Laurie\_46 (B2), Lephleur\_47 (B2), LilSmirk\_47 (B2), LizLemon\_47 (B2), MasterPo\_47 (B2), MontyDev\_35 (R), Nilo\_36 (R), Papyrus\_35 (R), Phantasmagoria\_47 (B2), PrinceCharming\_47 (B2), Rhinoforte\_47 (B2), Rinkes\_47 (B9), Riparian\_35 (R), Rope\_35 (R), Sabella\_46 (B2), Send513\_35 (R), Tinciduntolum\_48 (B2), Tres\_47 (B2), Vic9\_00046 (B2), Weiss13\_35 (R), West99\_47 (B2), Yelo\_35 (R), Zenon\_36



(R),

Start 35:

- Found in 66 of 578 ( 11.4% ) of genes in pham
- Manual Annotations of this start: 1 of 523
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Zulu\_13 (A6),

Start 36:

- Found in 209 of 578 ( 36.2% ) of genes in pham
- Manual Annotations of this start: 4 of 523
- Called 1.9% of time when present
- Phage (with cluster) where this start called: Arlo\_8 (A1), Bob3\_8 (A1), Hami1\_9 (A1), NEHalo\_9 (A1),

Start 42:

- Found in 23 of 578 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 2 of 523
- Called 13.0% of time when present
- Phage (with cluster) where this start called: Huxley\_8 (A4), Obama12\_8 (A4), Tinybot\_7 (A4),

### **Summary by clusters:**

There are 19 clusters represented in this pham: A7, A16, A10, A12, G2, J, A18, B9, A1, B6, R, B13, A4, B2, A6, B12, K7, A2, L3,

Info for manual annotations of cluster A1:

- Start number 20 was manually annotated 3 times for cluster A1.
- Start number 25 was manually annotated 43 times for cluster A1.
- Start number 28 was manually annotated 149 times for cluster A1.
- Start number 32 was manually annotated 10 times for cluster A1.
- Start number 36 was manually annotated 4 times for cluster A1.

Info for manual annotations of cluster A10:

- Start number 31 was manually annotated 6 times for cluster A10.

Info for manual annotations of cluster A12:

- Start number 31 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A16:

- Start number 31 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 24 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 26 was manually annotated 33 times for cluster A2.
- Start number 31 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A4:

- Start number 26 was manually annotated 135 times for cluster A4.
- Start number 42 was manually annotated 2 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 31 was manually annotated 41 times for cluster A6.
- Start number 35 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster A7:

- Start number 26 was manually annotated 4 times for cluster A7.

Info for manual annotations of cluster B12:

- Start number 29 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 29 was manually annotated 1 time for cluster B13.
- Start number 31 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 31 was manually annotated 7 times for cluster B2.
- Start number 34 was manually annotated 27 times for cluster B2.

Info for manual annotations of cluster B6:

- Start number 33 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B9:

- Start number 31 was manually annotated 2 times for cluster B9.
- Start number 34 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster G2:

- Start number 30 was manually annotated 1 time for cluster G2.
- Start number 31 was manually annotated 2 times for cluster G2.

Info for manual annotations of cluster J:

- Start number 25 was manually annotated 9 times for cluster J.

Info for manual annotations of cluster K7:

- Start number 27 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster L3:

- Start number 28 was manually annotated 17 times for cluster L3.

Info for manual annotations of cluster R:

- Start number 34 was manually annotated 9 times for cluster R.

### **Gene Information:**

Gene: 39HC\_040 Start: 38368, Stop: 39846, Start Num: 31

Candidate Starts for 39HC\_040:

(15, 38329), (Start: 31 @38368 has 70 MA's), (Start: 33 @38374 has 1 MA's), (Start: 34 @38380 has 37 MA's), (53, 38491), (58, 38533), (59, 38536), (72, 38680), (80, 38710), (83, 38740), (85, 38782), (86, 38794), (88, 38836), (107, 38980), (119, 39022), (129, 39079), (132, 39106), (133, 39121), (143, 39226), (155, 39313), (159, 39334), (169, 39373), (178, 39412), (192, 39460), (215, 39571), (240, 39625), (244, 39637), (245, 39640), (281, 39760),

Gene: 40BC\_040 Start: 38380, Stop: 39846, Start Num: 34

Candidate Starts for 40BC\_040:

(15, 38329), (Start: 31 @38368 has 70 MA's), (Start: 33 @38374 has 1 MA's), (Start: 34 @38380 has 37 MA's), (53, 38491), (58, 38533), (59, 38536), (72, 38680), (80, 38710), (83, 38740), (85, 38782), (86, 38794), (88, 38836), (107, 38980), (119, 39022), (129, 39079), (132, 39106), (133, 39121), (143, 39226), (155, 39313), (159, 39334), (169, 39373), (178, 39412), (192, 39460), (215, 39571), (240, 39625), (244, 39637), (245, 39640), (281, 39760),

Gene: A6\_07 Start: 4170, Stop: 5603, Start Num: 28

Candidate Starts for A6\_07:

(Start: 28 @4170 has 166 MA's), (Start: 36 @4218 has 4 MA's), (64, 4422), (83, 4524), (84, 4527), (85, 4566), (132, 4821), (154, 4980), (160, 5007), (212, 5238), (229, 5271), (277, 5421), (291, 5463), (306, 5514),

Gene: AFIS\_9 Start: 4528, Stop: 5940, Start Num: 28

Candidate Starts for AFIS\_9:

(Start: 28 @4528 has 166 MA's), (Start: 36 @4576 has 4 MA's), (64, 4780), (80, 4852), (84, 4885), (85, 4924), (132, 5158), (154, 5317), (160, 5344), (212, 5575), (229, 5608), (277, 5758), (291, 5800), (306, 5851),

Gene: AbbyPaige\_11 Start: 5117, Stop: 6439, Start Num: 26

Candidate Starts for AbbyPaige\_11:

(Start: 26 @5117 has 172 MA's), (45, 5201), (48, 5219), (58, 5294), (75, 5435), (85, 5528), (86, 5540), (88, 5588), (121, 5684), (136, 5756), (145, 5804), (203, 6023), (212, 6056), (237, 6110), (250, 6161), (262, 6206), (265, 6224), (286, 6287), (309, 6374),

Gene: AbbysRanger\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for AbbysRanger\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (286, 5280), (309, 5367),

Gene: Abbysshoes\_10 Start: 4617, Stop: 6029, Start Num: 28

Candidate Starts for Abbysshoes\_10:

(Start: 28 @4617 has 166 MA's), (Start: 36 @4665 has 4 MA's), (64, 4869), (80, 4941), (84, 4974), (85, 5013), (132, 5247), (154, 5406), (160, 5433), (212, 5664), (229, 5697), (277, 5847), (291, 5889), (306, 5940),

Gene: Abdiel\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Abdiel\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235), (309, 5352),

Gene: Abrogate\_100 Start: 5252, Stop: 6685, Start Num: 28

Candidate Starts for Abrogate\_100:

(Start: 28 @5252 has 166 MA's), (Start: 36 @5300 has 4 MA's), (64, 5504), (83, 5606), (84, 5609), (85, 5648), (132, 5903), (154, 6062), (160, 6089), (212, 6320), (229, 6353), (277, 6503), (291, 6545), (306, 6596),

Gene: Achebe\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Achebe\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (280, 5262), (286, 5280), (304, 5346), (309, 5367),

Gene: Acme\_10 Start: 4441, Stop: 5874, Start Num: 28

Candidate Starts for Acme\_10:

(Start: 28 @4441 has 166 MA's), (Start: 36 @4489 has 4 MA's), (64, 4693), (83, 4795), (84, 4798), (85, 4837), (132, 5092), (154, 5251), (160, 5278), (212, 5509), (229, 5542), (277, 5692), (291, 5734), (306, 5785),

Gene: Acolyte\_9 Start: 4629, Stop: 6059, Start Num: 26

Candidate Starts for Acolyte\_9:

(Start: 26 @4629 has 172 MA's), (37, 4680), (53, 4767), (85, 5028), (86, 5040), (94, 5139), (104, 5169), (131, 5253), (132, 5268), (134, 5298), (137, 5313), (149, 5415), (155, 5472), (163, 5511), (172, 5541), (183, 5571), (190, 5592), (200, 5679), (212, 5721), (276, 5895), (300, 5952), (303, 5964),

Gene: Adahisdi\_10 Start: 4835, Stop: 6268, Start Num: 28

Candidate Starts for Adahisdi\_10:

(Start: 28 @4835 has 166 MA's), (Start: 36 @4883 has 4 MA's), (64, 5087), (83, 5189), (84, 5192), (85, 5231), (132, 5486), (154, 5645), (160, 5672), (212, 5903), (229, 5936), (277, 6086), (291, 6128), (306, 6179),

Gene: Aeneas\_10 Start: 4720, Stop: 6147, Start Num: 28

Candidate Starts for Aeneas\_10:

(Start: 28 @4720 has 166 MA's), (Start: 36 @4768 has 4 MA's), (64, 4972), (83, 5074), (84, 5077), (85, 5116), (94, 5248), (132, 5371), (154, 5530), (160, 5557), (212, 5788), (229, 5821), (261, 5917), (277, 5971), (291, 6013), (306, 6064),

Gene: Agaliana\_9 Start: 4644, Stop: 6077, Start Num: 28

Candidate Starts for Agaliana\_9:

(Start: 28 @4644 has 166 MA's), (Start: 36 @4692 has 4 MA's), (64, 4896), (83, 4998), (84, 5001), (85, 5040), (132, 5295), (154, 5454), (160, 5481), (212, 5712), (277, 5895), (291, 5937), (306, 5988),

Gene: Agape74\_11 Start: 5117, Stop: 6439, Start Num: 26

Candidate Starts for Agape74\_11:

(Start: 26 @5117 has 172 MA's), (45, 5201), (48, 5219), (58, 5294), (75, 5435), (85, 5528), (86, 5540), (88, 5588), (121, 5684), (136, 5756), (145, 5804), (203, 6023), (212, 6056), (237, 6110), (250, 6161), (262, 6206), (265, 6224), (286, 6287), (309, 6374),

Gene: Ajay\_9 Start: 4661, Stop: 6073, Start Num: 28

Candidate Starts for Ajay\_9:

(Start: 28 @4661 has 166 MA's), (Start: 36 @4709 has 4 MA's), (64, 4913), (80, 4985), (84, 5018), (85, 5057), (132, 5291), (154, 5450), (160, 5477), (212, 5708), (229, 5741), (277, 5891), (291, 5933), (306, 5984),

Gene: Albee\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Albee\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Alberto7\_9 Start: 4223, Stop: 5728, Start Num: 26

Candidate Starts for Alberto7\_9:

(Start: 26 @4223 has 172 MA's), (Start: 42 @4301 has 2 MA's), (53, 4358), (64, 4475), (82, 4577), (83, 4595), (85, 4634), (86, 4646), (132, 4895), (140, 4964), (157, 5078), (158, 5081), (191, 5213), (193, 5219), (212, 5339), (237, 5393), (250, 5444), (265, 5507), (275, 5540),

Gene: Allegro\_47 Start: 40811, Stop: 42310, Start Num: 34

Candidate Starts for Allegro\_47:

(Start: 31 @40799 has 70 MA's), (Start: 34 @40811 has 37 MA's), (53, 40922), (62, 41018), (72, 41123), (80, 41153), (84, 41198), (85, 41237), (86, 41249), (95, 41375), (99, 41384), (100, 41390), (107, 41408), (111, 41420), (113, 41423), (117, 41435), (119, 41441), (131, 41507), (143, 41639), (151, 41696), (155, 41726), (159, 41747), (172, 41795), (179, 41825), (186, 41855), (189, 41861), (199, 41927), (215, 41984), (241, 42041), (246, 42059), (247, 42062), (265, 42134), (268, 42143), (273, 42152), (299, 42236),

Gene: Alsfro\_13 Start: 5368, Stop: 6816, Start Num: 20

Candidate Starts for Alsfro\_13:

(Start: 20 @5368 has 3 MA's), (Start: 25 @5395 has 52 MA's), (64, 5674), (73, 5716), (85, 5809), (94, 5911), (132, 6034), (160, 6220), (212, 6451), (229, 6484), (261, 6580), (277, 6634), (291, 6676), (306, 6727),

Gene: Altman\_10 Start: 5178, Stop: 6611, Start Num: 28

Candidate Starts for Altman\_10:

(Start: 28 @5178 has 166 MA's), (Start: 36 @5226 has 4 MA's), (64, 5430), (83, 5532), (84, 5535), (85, 5574), (132, 5829), (154, 5988), (160, 6015), (212, 6246), (229, 6279), (277, 6429), (291, 6471), (306, 6522),

Gene: Alvin\_10 Start: 4872, Stop: 6284, Start Num: 28

Candidate Starts for Alvin\_10:

(Start: 28 @4872 has 166 MA's), (Start: 36 @4920 has 4 MA's), (64, 5124), (80, 5196), (84, 5229), (85, 5268), (132, 5502), (154, 5661), (160, 5688), (212, 5919), (229, 5952), (261, 6048), (277, 6102), (291, 6144), (306, 6195),

Gene: Aminay\_29 Start: 25652, Stop: 27349, Start Num: 27

Candidate Starts for Aminay\_29:

(12, 25574), (19, 25619), (Start: 27 @25652 has 1 MA's), (Start: 36 @25703 has 4 MA's), (44, 25736), (47, 25751), (58, 25832), (65, 25913), (70, 25940), (84, 26009), (85, 26048), (86, 26060), (88, 26099), (102, 26204), (103, 26210), (132, 26318), (194, 26630), (216, 26762), (222, 26771), (272, 26918), (298, 26990), (316, 27089), (320, 27113),

Gene: Anglerfish\_9 Start: 4212, Stop: 5645, Start Num: 28

Candidate Starts for Anglerfish\_9:

(Start: 28 @4212 has 166 MA's), (Start: 36 @4260 has 4 MA's), (64, 4464), (83, 4566), (84, 4569), (85, 4608), (132, 4863), (154, 5022), (160, 5049), (212, 5280), (229, 5313), (277, 5463), (291, 5505), (306, 5556),

Gene: Annyong\_8 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for Annyong\_8:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (82, 4276), (83, 4294), (85, 4333), (86, 4345), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: Applejack\_9 Start: 4578, Stop: 6011, Start Num: 28

Candidate Starts for Applejack\_9:

(Start: 28 @4578 has 166 MA's), (Start: 36 @4626 has 4 MA's), (64, 4830), (83, 4932), (84, 4935), (85, 4974), (94, 5106), (132, 5229), (154, 5388), (160, 5415), (212, 5646), (229, 5679), (277, 5829), (291, 5871), (306, 5922),

Gene: Arbiter\_46 Start: 40873, Stop: 42384, Start Num: 31

Candidate Starts for Arbiter\_46:

(Start: 31 @40873 has 70 MA's), (Start: 34 @40885 has 37 MA's), (53, 40996), (62, 41092), (72, 41197), (80, 41227), (84, 41272), (85, 41311), (86, 41323), (95, 41449), (99, 41458), (100, 41464), (107, 41482), (111, 41494), (113, 41497), (117, 41509), (119, 41515), (131, 41581), (143, 41713), (151, 41770), (155, 41800), (159, 41821), (172, 41869), (179, 41899), (186, 41929), (189, 41935), (199, 42001), (215, 42058), (241, 42115), (246, 42133), (247, 42136), (265, 42208), (268, 42217), (273, 42226), (299, 42310),

Gene: Arcanine\_9 Start: 4178, Stop: 5611, Start Num: 28

Candidate Starts for Arcanine\_9:

(Start: 28 @4178 has 166 MA's), (Start: 36 @4226 has 4 MA's), (48, 4280), (64, 4430), (83, 4532), (84, 4535), (85, 4574), (132, 4829), (154, 4988), (212, 5246), (229, 5279), (261, 5375), (277, 5429), (291, 5471), (306, 5522),

Gene: Ares\_47 Start: 40869, Stop: 42368, Start Num: 34

Candidate Starts for Ares\_47:

(Start: 31 @40857 has 70 MA's), (Start: 34 @40869 has 37 MA's), (53, 40980), (62, 41076), (72, 41181), (80, 41211), (82, 41223), (84, 41256), (85, 41295), (86, 41307), (95, 41433), (99, 41442), (100, 41448), (107, 41466), (111, 41478), (113, 41481), (117, 41493), (119, 41499), (131, 41565), (143, 41697), (151, 41754), (155, 41784), (159, 41805), (172, 41853), (179, 41883), (186, 41913), (189, 41919), (199, 41985), (215, 42042), (241, 42099), (246, 42117), (247, 42120), (265, 42192), (268, 42201), (273, 42210), (299, 42294),

Gene: Ariel\_47 Start: 37294, Stop: 38682, Start Num: 25

Candidate Starts for Ariel\_47:

(Start: 25 @37294 has 52 MA's), (Start: 36 @37345 has 4 MA's), (47, 37393), (62, 37516), (64, 37549), (70, 37582), (84, 37654), (85, 37693), (121, 37891), (123, 37903), (131, 37939), (132, 37954), (155, 38116), (160, 38140), (180, 38227), (212, 38407), (222, 38428), (271, 38560), (272, 38563), (277, 38578), (279, 38581), (301, 38647),

Gene: Arlo\_8 Start: 4251, Stop: 5636, Start Num: 36

Candidate Starts for Arlo\_8:

(Start: 28 @4203 has 166 MA's), (Start: 36 @4251 has 4 MA's), (48, 4305), (64, 4455), (83, 4557), (84, 4560), (85, 4599), (132, 4854), (154, 5013), (160, 5040), (185, 5127), (212, 5271), (229, 5304), (261, 5400), (277, 5454), (291, 5496), (306, 5547),

Gene: Artemis2UCLA\_13 Start: 5737, Stop: 6948, Start Num: 31

Candidate Starts for Artemis2UCLA\_13:

(Start: 31 @5737 has 70 MA's), (Start: 35 @5755 has 1 MA's), (59, 5905), (60, 5920), (66, 6016), (80, 6079), (85, 6163), (86, 6175), (88, 6208), (129, 6409), (155, 6628), (168, 6667), (171, 6673), (191, 6736),

Gene: Arturo\_7 Start: 4029, Stop: 5534, Start Num: 26

Candidate Starts for Arturo\_7:

(13, 3966), (Start: 26 @4029 has 172 MA's), (48, 4131), (64, 4281), (85, 4440), (86, 4452), (132, 4701), (140, 4770), (155, 4872), (157, 4884), (158, 4887), (176, 4956), (191, 5019), (193, 5025), (212, 5145), (237, 5199), (250, 5250), (265, 5313), (275, 5346),

Gene: Ashballer\_7 Start: 4081, Stop: 5514, Start Num: 28

Candidate Starts for Ashballer\_7:

(Start: 28 @4081 has 166 MA's), (Start: 36 @4129 has 4 MA's), (64, 4333), (84, 4438), (85, 4477), (132, 4732), (154, 4891), (160, 4918), (212, 5149), (229, 5182), (261, 5278), (277, 5332), (291, 5374), (306, 5425),

Gene: Atkinbua\_9 Start: 4235, Stop: 5656, Start Num: 25

Candidate Starts for Atkinbua\_9:

(Start: 25 @4235 has 52 MA's), (64, 4514), (73, 4556), (85, 4649), (94, 4751), (132, 4874), (154, 5033), (160, 5060), (212, 5291), (229, 5324), (261, 5420), (277, 5474), (291, 5516), (302, 5552), (306, 5567),

Gene: AvatarAhPeg\_8 Start: 3924, Stop: 5396, Start Num: 26

Candidate Starts for AvatarAhPeg\_8:

(Start: 26 @3924 has 172 MA's), (64, 4176), (84, 4299), (85, 4335), (86, 4347), (132, 4593), (140, 4662), (155, 4764), (157, 4776), (158, 4779), (191, 4911), (200, 4992), (204, 5004), (212, 5034), (224, 5058), (238, 5097), (265, 5196), (280, 5241), (287, 5262),

Gene: Avle17\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Avle17\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Avocado\_26 Start: 25496, Stop: 26851, Start Num: 31

Candidate Starts for Avocado\_26:

(4, 24929), (5, 24959), (10, 25268), (Start: 31 @25496 has 70 MA's), (49, 25598), (50, 25601), (51, 25619), (62, 25709), (77, 25802), (81, 25820), (84, 25844), (85, 25883), (104, 26060), (107, 26072), (119, 26102), (128, 26147), (132, 26183), (133, 26198), (147, 26285), (155, 26345), (158, 26360), (159, 26366), (184, 26456), (212, 26627), (231, 26666), (243, 26699),

Gene: BABullseye\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for BABullseye\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: BK1\_07 Start: 4170, Stop: 5603, Start Num: 28

Candidate Starts for BK1\_07:

(Start: 28 @4170 has 166 MA's), (Start: 36 @4218 has 4 MA's), (64, 4422), (83, 4524), (84, 4527), (85, 4566), (132, 4821), (154, 4980), (160, 5007), (212, 5238), (229, 5271), (277, 5421), (291, 5463), (306, 5514),

Gene: BPBiebs31\_10 Start: 4842, Stop: 6275, Start Num: 28

Candidate Starts for BPBiebs31\_10:

(Start: 28 @4842 has 166 MA's), (Start: 36 @4890 has 4 MA's), (48, 4944), (64, 5094), (83, 5196), (84, 5199), (85, 5238), (132, 5493), (154, 5652), (160, 5679), (212, 5910), (229, 5943), (261, 6039), (277, 6093), (291, 6135), (306, 6186),

Gene: Baby16\_8 Start: 3930, Stop: 5432, Start Num: 26

Candidate Starts for Baby16\_8:

(Start: 26 @3930 has 172 MA's), (53, 4065), (64, 4182), (82, 4284), (83, 4302), (85, 4341), (86, 4353), (102, 4491), (127, 4560), (132, 4599), (157, 4782), (158, 4785), (191, 4917), (193, 4923), (212, 5043), (237, 5097), (250, 5148), (265, 5211), (275, 5244),

Gene: BabyBack\_11 Start: 6139, Stop: 7644, Start Num: 26

Candidate Starts for BabyBack\_11:

(Start: 26 @6139 has 172 MA's), (53, 6274), (64, 6391), (83, 6511), (85, 6550), (86, 6562), (102, 6697), (132, 6805), (157, 6988), (191, 7123), (212, 7249), (233, 7294), (237, 7303), (250, 7354), (286, 7480), (311, 7582),

Gene: Backyardigan\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Backyardigan\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (280, 5262), (286, 5280), (304, 5346), (309, 5367),

Gene: BaconJack\_10 Start: 4436, Stop: 5854, Start Num: 25

Candidate Starts for BaconJack\_10:

(Start: 25 @4436 has 52 MA's), (64, 4715), (73, 4757), (85, 4850), (94, 4952), (132, 5075), (154, 5234), (160, 5261), (212, 5492), (229, 5525), (261, 5621), (277, 5675), (291, 5717), (306, 5768),

Gene: Bactobuster\_10 Start: 6206, Stop: 7714, Start Num: 26

Candidate Starts for Bactobuster\_10:

(13, 6143), (Start: 26 @6206 has 172 MA's), (53, 6341), (83, 6578), (85, 6617), (86, 6629), (127, 6845), (132, 6884), (140, 6953), (157, 7067), (158, 7070), (191, 7202), (212, 7328), (233, 7373), (237, 7382), (250, 7433), (260, 7475), (286, 7559), (309, 7649),

Gene: Badger\_8 Start: 3937, Stop: 5433, Start Num: 26

Candidate Starts for Badger\_8:

(Start: 26 @3937 has 172 MA's), (53, 4072), (58, 4114), (64, 4189), (82, 4291), (83, 4309), (85, 4348), (86, 4360), (132, 4609), (157, 4792), (158, 4795), (191, 4927), (192, 4930), (193, 4933), (200, 5008), (212, 5050), (250, 5155), (263, 5203), (280, 5263), (286, 5281), (304, 5347), (309, 5368),

Gene: Bananafish\_47 Start: 40793, Stop: 42304, Start Num: 31

Candidate Starts for Bananafish\_47:

(Start: 31 @40793 has 70 MA's), (Start: 34 @40805 has 37 MA's), (53, 40916), (62, 41012), (72, 41117), (80, 41147), (84, 41192), (85, 41231), (86, 41243), (95, 41369), (99, 41378), (100, 41384), (107, 41402), (111, 41414), (113, 41417), (117, 41429), (119, 41435), (131, 41501), (143, 41633), (151, 41690), (155, 41720), (159, 41741), (172, 41789), (179, 41819), (186, 41849), (189, 41855), (199, 41921), (215, 41978), (241, 42035), (246, 42053), (247, 42056), (265, 42128), (268, 42137), (273, 42146), (299, 42230),

Gene: BangNhom\_7 Start: 3928, Stop: 5409, Start Num: 26

Candidate Starts for BangNhom\_7:

(Start: 26 @3928 has 172 MA's), (Start: 42 @4006 has 2 MA's), (64, 4186), (85, 4345), (86, 4357), (132, 4606), (140, 4675), (157, 4789), (158, 4792), (176, 4861), (191, 4924), (212, 5047), (224, 5071), (265, 5209), (290, 5281), (300, 5302), (305, 5320),

Gene: Barriga\_9 Start: 4458, Stop: 5879, Start Num: 25

Candidate Starts for Barriga\_9:

(Start: 25 @4458 has 52 MA's), (64, 4737), (73, 4779), (85, 4872), (94, 4974), (132, 5097), (154, 5256), (160, 5283), (212, 5514), (229, 5547), (261, 5643), (277, 5697), (291, 5739), (306, 5790),

Gene: BarrowTuph\_8 Start: 4514, Stop: 5926, Start Num: 28

Candidate Starts for BarrowTuph\_8:



(Start: 28 @4514 has 166 MA's), (Start: 36 @4562 has 4 MA's), (64, 4766), (80, 4838), (84, 4871), (85, 4910), (132, 5144), (154, 5303), (160, 5330), (212, 5561), (229, 5594), (277, 5744), (291, 5786), (306, 5837),

Gene: Bartimeaus\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Bartimeaus\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Beatrix\_8 Start: 4263, Stop: 5696, Start Num: 28

Candidate Starts for Beatrix\_8:

(Start: 28 @4263 has 166 MA's), (Start: 36 @4311 has 4 MA's), (64, 4515), (80, 4587), (85, 4659), (132, 4914), (154, 5073), (212, 5331), (229, 5364), (261, 5460), (277, 5514), (291, 5556), (302, 5592), (306, 5607),

Gene: BeesKnees\_9 Start: 4307, Stop: 5740, Start Num: 28

Candidate Starts for BeesKnees\_9:

(Start: 28 @4307 has 166 MA's), (Start: 36 @4355 has 4 MA's), (48, 4409), (64, 4559), (83, 4661), (84, 4664), (85, 4703), (132, 4958), (154, 5117), (160, 5144), (185, 5231), (212, 5375), (229, 5408), (277, 5558), (291, 5600), (306, 5651),

Gene: Bellis\_26 Start: 24965, Stop: 26437, Start Num: 28

Candidate Starts for Bellis\_26:

(Start: 28 @24965 has 166 MA's), (Start: 36 @25013 has 4 MA's), (48, 25067), (52, 25097), (53, 25100), (58, 25142), (64, 25217), (85, 25361), (86, 25373), (132, 25601), (141, 25670), (158, 25787), (191, 25919), (193, 25925), (212, 26045), (229, 26078), (233, 26090), (250, 26150), (272, 26228), (314, 26393),

Gene: BellusTerra\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for BellusTerra\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Bethlehem\_9 Start: 4849, Stop: 6282, Start Num: 28

Candidate Starts for Bethlehem\_9:

(Start: 28 @4849 has 166 MA's), (Start: 36 @4897 has 4 MA's), (48, 4951), (64, 5101), (83, 5203), (84, 5206), (85, 5245), (132, 5500), (154, 5659), (160, 5686), (185, 5773), (212, 5917), (229, 5950), (261, 6046), (277, 6100), (291, 6142), (302, 6178), (306, 6193),

Gene: Bexan\_8 Start: 4263, Stop: 5696, Start Num: 28

Candidate Starts for Bexan\_8:

(Start: 28 @4263 has 166 MA's), (Start: 36 @4311 has 4 MA's), (64, 4515), (80, 4587), (85, 4659), (132, 4914), (154, 5073), (212, 5331), (229, 5364), (261, 5460), (277, 5514), (291, 5556), (302, 5592), (306, 5607),

Gene: BiancaTri92\_11 Start: 6268, Stop: 7752, Start Num: 26

Candidate Starts for BiancaTri92\_11:

(Start: 26 @6268 has 172 MA's), (47, 6370), (64, 6526), (74, 6586), (85, 6667), (86, 6679), (123, 6871), (132, 6922), (155, 7132), (159, 7153), (177, 7219), (194, 7270), (200, 7342), (204, 7354), (205, 7357), (212, 7390), (224, 7414), (235, 7438), (265, 7552), (268, 7561), (280, 7597), (305, 7663),

Gene: Big3\_9 Start: 4206, Stop: 5639, Start Num: 28

Candidate Starts for Big3\_9:

(Start: 28 @4206 has 166 MA's), (Start: 36 @4254 has 4 MA's), (64, 4458), (83, 4560), (84, 4563), (85, 4602), (132, 4857), (154, 5016), (160, 5043), (212, 5274), (229, 5307), (277, 5457), (291, 5499), (306, 5550),

Gene: BigMau\_10 Start: 4320, Stop: 5741, Start Num: 25

Candidate Starts for BigMau\_10:

(Start: 25 @4320 has 52 MA's), (64, 4599), (73, 4641), (85, 4734), (94, 4836), (132, 4959), (154, 5118), (160, 5145), (212, 5376), (229, 5409), (261, 5505), (277, 5559), (291, 5601), (306, 5652),

Gene: BigPaolini\_10 Start: 5235, Stop: 6668, Start Num: 28

Candidate Starts for BigPaolini\_10:

(Start: 28 @5235 has 166 MA's), (Start: 36 @5283 has 4 MA's), (64, 5487), (83, 5589), (84, 5592), (85, 5631), (132, 5886), (154, 6045), (160, 6072), (185, 6159), (212, 6303), (229, 6336), (261, 6432), (277, 6486), (291, 6528), (306, 6579),

Gene: Bigchungi\_8 Start: 4103, Stop: 5530, Start Num: 28

Candidate Starts for Bigchungi\_8:

(Start: 28 @4103 has 166 MA's), (Start: 36 @4151 has 4 MA's), (64, 4355), (80, 4427), (85, 4499), (132, 4754), (154, 4913), (160, 4940), (212, 5171), (229, 5204), (261, 5300), (277, 5354), (291, 5396), (306, 5447),

Gene: Bigfoot\_8 Start: 4334, Stop: 5767, Start Num: 28

Candidate Starts for Bigfoot\_8:

(Start: 28 @4334 has 166 MA's), (Start: 36 @4382 has 4 MA's), (64, 4586), (83, 4688), (84, 4691), (85, 4730), (132, 4985), (154, 5144), (160, 5171), (212, 5402), (229, 5435), (261, 5531), (277, 5585), (291, 5627), (306, 5678),

Gene: BillKnuckles\_10 Start: 5290, Stop: 6684, Start Num: 32

Candidate Starts for BillKnuckles\_10:

(21, 5248), (Start: 32 @5290 has 10 MA's), (47, 5368), (64, 5524), (84, 5629), (85, 5668), (132, 5902), (154, 6061), (212, 6319), (229, 6352), (261, 6448), (277, 6502), (291, 6544), (306, 6595),

Gene: Bircsak\_9 Start: 4795, Stop: 6228, Start Num: 28

Candidate Starts for Bircsak\_9:

(Start: 28 @4795 has 166 MA's), (Start: 36 @4843 has 4 MA's), (64, 5047), (83, 5149), (84, 5152), (85, 5191), (132, 5446), (154, 5605), (160, 5632), (212, 5863), (229, 5896), (277, 6046), (291, 6088), (306, 6139),

Gene: BirdsNest\_49 Start: 39310, Stop: 40839, Start Num: 29

Candidate Starts for BirdsNest\_49:

(2, 38461), (3, 38488), (7, 38860), (8, 38887), (9, 38944), (Start: 29 @39310 has 2 MA's), (Start: 31 @39316 has 70 MA's), (Start: 34 @39328 has 37 MA's), (53, 39439), (56, 39460), (67, 39601), (79, 39649), (80, 39658), (83, 39688), (85, 39730), (86, 39742), (132, 40045), (151, 40225), (172, 40324), (178, 40354), (215, 40516), (251, 40612), (257, 40633), (269, 40678), (282, 40717), (312, 40825),

Gene: Blackmoor\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Blackmoor\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: BlessJoy\_13 Start: 5832, Stop: 7046, Start Num: 31

Candidate Starts for BlessJoy\_13:

(Start: 31 @5832 has 70 MA's), (Start: 35 @5850 has 1 MA's), (59, 6000), (66, 6111), (80, 6174), (85, 6258), (86, 6270), (88, 6303), (92, 6375), (99, 6393), (120, 6459), (129, 6507), (155, 6726), (164, 6753), (168, 6765), (171, 6771), (191, 6834), (245, 7017),

Gene: Blinn1\_13 Start: 5887, Stop: 7098, Start Num: 31

Candidate Starts for Blinn1\_13:

(Start: 31 @5887 has 70 MA's), (Start: 35 @5905 has 1 MA's), (59, 6055), (66, 6166), (80, 6229), (85, 6313), (86, 6325), (88, 6358), (129, 6559), (155, 6778), (168, 6817), (191, 6886),

Gene: Blocker23\_47 Start: 40911, Stop: 42422, Start Num: 31

Candidate Starts for Blocker23\_47:

(Start: 31 @40911 has 70 MA's), (Start: 34 @40923 has 37 MA's), (53, 41034), (62, 41130), (72, 41235), (80, 41265), (84, 41310), (85, 41349), (86, 41361), (95, 41487), (99, 41496), (100, 41502), (107, 41520), (111, 41532), (113, 41535), (117, 41547), (119, 41553), (131, 41619), (143, 41751), (151, 41808), (155, 41838), (159, 41859), (172, 41907), (179, 41937), (186, 41967), (189, 41973), (199, 42039), (215, 42096), (241, 42153), (246, 42171), (247, 42174), (265, 42246), (268, 42255), (273, 42264), (299, 42348),

Gene: BluSpix\_9 Start: 4594, Stop: 6027, Start Num: 28

Candidate Starts for BluSpix\_9:

(Start: 28 @4594 has 166 MA's), (Start: 36 @4642 has 4 MA's), (64, 4846), (83, 4948), (84, 4951), (85, 4990), (94, 5122), (132, 5245), (154, 5404), (160, 5431), (212, 5662), (229, 5695), (277, 5845), (291, 5887), (306, 5938),

Gene: Blue\_9 Start: 4713, Stop: 6134, Start Num: 25

Candidate Starts for Blue\_9:

(Start: 25 @4713 has 52 MA's), (64, 4992), (73, 5034), (85, 5127), (94, 5229), (132, 5352), (154, 5511), (212, 5769), (229, 5802), (277, 5952), (291, 5994), (306, 6045),

Gene: Blue7\_13 Start: 5825, Stop: 7039, Start Num: 31

Candidate Starts for Blue7\_13:

(Start: 31 @5825 has 70 MA's), (Start: 35 @5843 has 1 MA's), (59, 5993), (66, 6104), (72, 6137), (80, 6167), (85, 6251), (86, 6263), (88, 6296), (92, 6368), (99, 6386), (120, 6452), (129, 6500), (155, 6719), (164, 6746), (168, 6758), (171, 6764), (191, 6827), (245, 7010),

Gene: Bob3\_8 Start: 4198, Stop: 5583, Start Num: 36

Candidate Starts for Bob3\_8:

(Start: 28 @4150 has 166 MA's), (Start: 36 @4198 has 4 MA's), (48, 4252), (64, 4402), (83, 4504), (84, 4507), (85, 4546), (132, 4801), (154, 4960), (160, 4987), (212, 5218), (229, 5251), (261, 5347), (277, 5401), (291, 5443), (306, 5494),

Gene: BobSwaget\_12 Start: 6412, Stop: 7692, Start Num: 26

Candidate Starts for BobSwaget\_12:

(Start: 26 @6412 has 172 MA's), (48, 6514), (69, 6697), (82, 6763), (85, 6805), (86, 6817), (88, 6865), (121, 6958), (126, 6964), (136, 7030), (203, 7297), (212, 7330), (225, 7354), (265, 7492), (268, 7501), (309, 7621),

Gene: Bobby\_47 Start: 39633, Stop: 41009, Start Num: 25

Candidate Starts for Bobby\_47:

(Start: 25 @39633 has 52 MA's), (Start: 36 @39684 has 4 MA's), (Start: 42 @39711 has 2 MA's), (47, 39732), (63, 39873), (64, 39888), (85, 40032), (88, 40095), (122, 40236), (132, 40290), (159, 40500),

(165, 40527), (212, 40734), (222, 40755), (271, 40887), (277, 40905), (279, 40908), (290, 40935),

Gene: Bombshell\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Bombshell\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Bones\_9 Start: 4345, Stop: 5778, Start Num: 28

Candidate Starts for Bones\_9:

(Start: 28 @4345 has 166 MA's), (Start: 36 @4393 has 4 MA's), (64, 4597), (83, 4699), (84, 4702), (85, 4741), (94, 4873), (132, 4996), (154, 5155), (160, 5182), (212, 5413), (229, 5446), (277, 5596), (291, 5638), (302, 5674), (306, 5689),

Gene: BourbonZero\_25 Start: 24922, Stop: 26394, Start Num: 28

Candidate Starts for BourbonZero\_25:

(Start: 28 @24922 has 166 MA's), (Start: 36 @24970 has 4 MA's), (48, 25024), (52, 25054), (53, 25057), (64, 25174), (85, 25318), (86, 25330), (132, 25558), (141, 25627), (158, 25744), (191, 25876), (192, 25879), (193, 25882), (212, 26002), (229, 26035), (233, 26047), (250, 26107), (272, 26185), (314, 26350),

Gene: Boyle\_47 Start: 40924, Stop: 42423, Start Num: 34

Candidate Starts for Boyle\_47:

(Start: 31 @40912 has 70 MA's), (Start: 34 @40924 has 37 MA's), (53, 41035), (62, 41131), (72, 41236), (80, 41266), (84, 41311), (85, 41350), (86, 41362), (95, 41488), (99, 41497), (100, 41503), (107, 41521), (111, 41533), (113, 41536), (117, 41548), (119, 41554), (131, 41620), (143, 41752), (151, 41809), (155, 41839), (159, 41860), (172, 41908), (179, 41938), (186, 41968), (189, 41974), (199, 42040), (215, 42097), (241, 42154), (246, 42172), (247, 42175), (265, 42247), (268, 42256), (273, 42265), (299, 42349),

Gene: Briton15\_10 Start: 4361, Stop: 5794, Start Num: 28

Candidate Starts for Briton15\_10:

(Start: 28 @4361 has 166 MA's), (Start: 36 @4409 has 4 MA's), (48, 4463), (64, 4613), (83, 4715), (84, 4718), (85, 4757), (132, 5012), (154, 5171), (160, 5198), (185, 5285), (212, 5429), (229, 5462), (261, 5558), (277, 5612), (291, 5654), (302, 5690), (306, 5705),

Gene: Broseidon\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Broseidon\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Brownie5\_47 Start: 40936, Stop: 42435, Start Num: 34

Candidate Starts for Brownie5\_47:

(Start: 31 @40924 has 70 MA's), (Start: 34 @40936 has 37 MA's), (53, 41047), (62, 41143), (72, 41248), (80, 41278), (84, 41323), (85, 41362), (86, 41374), (95, 41500), (99, 41509), (100, 41515), (107, 41533), (111, 41545), (113, 41548), (117, 41560), (119, 41566), (131, 41632), (143, 41764), (151, 41821), (155, 41851), (159, 41872), (172, 41920), (179, 41950), (186, 41980), (189, 41986), (199, 42052), (215, 42109), (241, 42166), (246, 42184), (247, 42187), (265, 42259), (268, 42268), (273, 42277), (299, 42361),

Gene: Bruiser\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Bruiser\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Bruns\_7 Start: 4023, Stop: 5444, Start Num: 25

Candidate Starts for Bruns\_7:

(Start: 25 @4023 has 52 MA's), (64, 4302), (73, 4344), (85, 4437), (94, 4539), (132, 4662), (154, 4821), (160, 4848), (185, 4935), (212, 5079), (229, 5112), (261, 5208), (277, 5262), (291, 5304), (302, 5340), (306, 5355),

Gene: BubbleTrouble\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for BubbleTrouble\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Buggy\_11 Start: 5116, Stop: 6438, Start Num: 26

Candidate Starts for Buggy\_11:

(Start: 26 @5116 has 172 MA's), (45, 5200), (48, 5218), (58, 5293), (75, 5434), (85, 5527), (86, 5539), (88, 5587), (121, 5683), (136, 5755), (145, 5803), (203, 6022), (212, 6055), (237, 6109), (250, 6160), (262, 6205), (265, 6223), (286, 6286), (309, 6373),

Gene: Bumblebee11\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Bumblebee11\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (286, 5280), (309, 5367),

Gene: Burger\_7 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Burger\_7:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (94, 4464), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Burton\_9 Start: 4211, Stop: 5644, Start Num: 28

Candidate Starts for Burton\_9:

(Start: 28 @4211 has 166 MA's), (Start: 36 @4259 has 4 MA's), (48, 4313), (64, 4463), (83, 4565), (84, 4568), (85, 4607), (132, 4862), (154, 5021), (160, 5048), (212, 5279), (229, 5312), (261, 5408), (277, 5462), (291, 5504), (306, 5555),

Gene: Buttons\_10 Start: 4795, Stop: 6216, Start Num: 25

Candidate Starts for Buttons\_10:

(16, 4759), (Start: 20 @4768 has 3 MA's), (Start: 25 @4795 has 52 MA's), (64, 5074), (73, 5116), (85, 5209), (94, 5311), (132, 5434), (154, 5593), (160, 5620), (212, 5851), (229, 5884), (277, 6034), (291, 6076), (306, 6127),

Gene: Bxb1\_8 Start: 4620, Stop: 6053, Start Num: 28

Candidate Starts for Bxb1\_8:

(Start: 28 @4620 has 166 MA's), (Start: 36 @4668 has 4 MA's), (64, 4872), (83, 4974), (84, 4977), (85, 5016), (132, 5271), (154, 5430), (212, 5688), (229, 5721), (277, 5871), (291, 5913), (306, 5964),

Gene: CactusRose\_8 Start: 4333, Stop: 5766, Start Num: 28

Candidate Starts for CactusRose\_8:

(Start: 28 @4333 has 166 MA's), (Start: 36 @4381 has 4 MA's), (64, 4585), (83, 4687), (84, 4690), (85, 4729), (132, 4984), (154, 5143), (160, 5170), (212, 5401), (229, 5434), (261, 5530), (277, 5584), (291, 5626), (306, 5677),

Gene: Caelakin\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Caelakin\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Calamitous\_47 Start: 40810, Stop: 42309, Start Num: 34

Candidate Starts for Calamitous\_47:

(Start: 31 @40798 has 70 MA's), (Start: 34 @40810 has 37 MA's), (53, 40921), (62, 41017), (72, 41122), (80, 41152), (84, 41197), (85, 41236), (86, 41248), (95, 41374), (99, 41383), (100, 41389), (107, 41407), (111, 41419), (113, 41422), (117, 41434), (119, 41440), (131, 41506), (143, 41638), (151, 41695), (155, 41725), (159, 41746), (172, 41794), (179, 41824), (186, 41854), (189, 41860), (199, 41926), (215, 41983), (241, 42040), (246, 42058), (247, 42061), (265, 42133), (268, 42142), (273, 42151), (299, 42235),

Gene: Cambiare\_27 Start: 25961, Stop: 27316, Start Num: 31

Candidate Starts for Cambiare\_27:

(4, 25394), (5, 25424), (Start: 31 @25961 has 70 MA's), (49, 26063), (50, 26066), (51, 26084), (62, 26174), (77, 26267), (81, 26285), (84, 26309), (85, 26348), (104, 26525), (107, 26537), (119, 26567), (128, 26612), (132, 26648), (133, 26663), (147, 26750), (155, 26810), (158, 26825), (159, 26831), (184, 26921), (212, 27092), (231, 27131), (243, 27164),

Gene: Camperdownii\_7 Start: 3574, Stop: 5049, Start Num: 26

Candidate Starts for Camperdownii\_7:

(Start: 26 @3574 has 172 MA's), (53, 3709), (64, 3826), (83, 3946), (85, 3985), (86, 3997), (132, 4246), (140, 4315), (157, 4429), (158, 4432), (191, 4564), (212, 4687), (224, 4711), (265, 4849), (290, 4921), (300, 4942), (305, 4960),

Gene: Candle\_35 Start: 32594, Stop: 34063, Start Num: 34

Candidate Starts for Candle\_35:

(Start: 34 @32594 has 37 MA's), (51, 32699), (62, 32801), (82, 32948), (83, 32966), (85, 33008), (86, 33020), (90, 33068), (109, 33164), (114, 33176), (116, 33185), (122, 33218), (132, 33272), (137, 33317), (155, 33476), (159, 33497), (160, 33500), (172, 33545), (178, 33575), (197, 33644), (198, 33659), (200, 33683), (212, 33728), (223, 33752), (253, 33839), (260, 33869), (278, 33932), (293, 33974),

Gene: Candra\_13 Start: 5887, Stop: 7098, Start Num: 31

Candidate Starts for Candra\_13:

(Start: 31 @5887 has 70 MA's), (Start: 35 @5905 has 1 MA's), (58, 6052), (59, 6055), (66, 6166), (80, 6229), (85, 6313), (86, 6325), (88, 6358), (129, 6559), (155, 6778), (164, 6805), (168, 6817), (171, 6823), (191, 6886), (245, 7069),

Gene: Carlyle\_11 Start: 5193, Stop: 6614, Start Num: 25

Candidate Starts for Carlyle\_11:

(Start: 25 @5193 has 52 MA's), (64, 5472), (73, 5514), (85, 5607), (94, 5709), (132, 5832), (154, 5991), (160, 6018), (212, 6249), (229, 6282), (261, 6378), (277, 6432), (291, 6474), (306, 6525),

Gene: CentreCat\_8 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for CentreCat\_8:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (82, 4276), (83, 4294), (85, 4333), (86, 4345), (102, 4483), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: Cerulean\_8 Start: 3929, Stop: 5410, Start Num: 26

Candidate Starts for Cerulean\_8:

(Start: 26 @3929 has 172 MA's), (Start: 42 @4007 has 2 MA's), (64, 4187), (85, 4346), (86, 4358), (132, 4607), (140, 4676), (157, 4790), (158, 4793), (176, 4862), (191, 4925), (212, 5048), (224, 5072), (265, 5210), (290, 5282), (300, 5303), (305, 5321),

Gene: ChampagnePapi\_8 Start: 3928, Stop: 5409, Start Num: 26

Candidate Starts for ChampagnePapi\_8:

(Start: 26 @3928 has 172 MA's), (Start: 42 @4006 has 2 MA's), (64, 4186), (85, 4345), (86, 4357), (132, 4606), (140, 4675), (157, 4789), (158, 4792), (176, 4861), (191, 4924), (212, 5047), (224, 5071), (265, 5209), (290, 5281), (300, 5302), (305, 5320),

Gene: Chanagan\_8 Start: 4177, Stop: 5610, Start Num: 28

Candidate Starts for Chanagan\_8:

(Start: 28 @4177 has 166 MA's), (Start: 36 @4225 has 4 MA's), (64, 4429), (83, 4531), (84, 4534), (85, 4573), (132, 4828), (154, 4987), (160, 5014), (212, 5245), (229, 5278), (277, 5428), (291, 5470), (306, 5521),

Gene: Chaph\_8 Start: 3930, Stop: 5432, Start Num: 26

Candidate Starts for Chaph\_8:

(Start: 26 @3930 has 172 MA's), (53, 4065), (64, 4182), (83, 4302), (85, 4341), (86, 4353), (127, 4560), (132, 4599), (157, 4782), (158, 4785), (191, 4917), (193, 4923), (212, 5043), (237, 5097), (250, 5148), (265, 5211), (275, 5244),

Gene: Chartreuse\_13 Start: 5801, Stop: 7012, Start Num: 31

Candidate Starts for Chartreuse\_13:

(Start: 31 @5801 has 70 MA's), (Start: 35 @5819 has 1 MA's), (58, 5966), (59, 5969), (66, 6080), (80, 6143), (85, 6227), (86, 6239), (88, 6272), (129, 6473), (155, 6692), (164, 6719), (168, 6731), (171, 6737), (191, 6800), (245, 6983),

Gene: ChipMunk\_11 Start: 5066, Stop: 6376, Start Num: 26

Candidate Starts for ChipMunk\_11:

(Start: 26 @5066 has 172 MA's), (45, 5150), (48, 5168), (58, 5243), (69, 5351), (75, 5384), (85, 5477), (86, 5489), (88, 5537), (106, 5609), (121, 5621), (203, 5960), (212, 5993), (237, 6047), (250, 6098),

Gene: Ciao\_9 Start: 4575, Stop: 5996, Start Num: 25

Candidate Starts for Ciao\_9:

(Start: 25 @4575 has 52 MA's), (64, 4854), (73, 4896), (85, 4989), (94, 5091), (132, 5214), (154, 5373), (160, 5400), (212, 5631), (229, 5664), (277, 5814), (291, 5856), (306, 5907),

Gene: Cici\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Cici\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (280, 5262), (286, 5280), (304, 5346), (309, 5367),

Gene: Cindaradix\_7 Start: 3669, Stop: 5138, Start Num: 26

Candidate Starts for Cindaradix\_7:

(Start: 26 @3669 has 172 MA's), (64, 3921), (85, 4080), (86, 4092), (132, 4335), (140, 4404), (155, 4506), (157, 4518), (158, 4521), (176, 4590), (191, 4653), (193, 4659), (212, 4776), (224, 4800), (234, 4824), (265, 4938), (268, 4947), (290, 5010), (300, 5031), (305, 5049),

Gene: Cintron\_8 Start: 4029, Stop: 5504, Start Num: 26

Candidate Starts for Cintron\_8:

(13, 3966), (Start: 26 @4029 has 172 MA's), (64, 4281), (85, 4440), (86, 4452), (132, 4701), (140, 4770), (157, 4884), (158, 4887), (191, 5019), (204, 5112), (212, 5142), (224, 5166), (238, 5205), (265, 5304), (300, 5397),

Gene: Citius\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Citius\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Clarenza\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Clarenza\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Clautastrophe\_26 Start: 24962, Stop: 26434, Start Num: 28

Candidate Starts for Clautastrophe\_26:

(Start: 28 @24962 has 166 MA's), (Start: 36 @25010 has 4 MA's), (48, 25064), (52, 25094), (53, 25097), (58, 25139), (64, 25214), (85, 25358), (86, 25370), (132, 25598), (141, 25667), (158, 25784), (191, 25916), (193, 25922), (212, 26042), (229, 26075), (233, 26087), (250, 26147), (272, 26225), (314, 26390),

Gene: CloudWang3\_13 Start: 5832, Stop: 7043, Start Num: 31

Candidate Starts for CloudWang3\_13:

(Start: 31 @5832 has 70 MA's), (Start: 35 @5850 has 1 MA's), (58, 5997), (59, 6000), (66, 6111), (80, 6174), (85, 6258), (86, 6270), (88, 6303), (129, 6504), (155, 6723), (164, 6750), (168, 6762), (171, 6768), (191, 6831), (245, 7014),

Gene: Cocoaberry\_8 Start: 3925, Stop: 5427, Start Num: 26

Candidate Starts for Cocoaberry\_8:

(Start: 26 @3925 has 172 MA's), (53, 4060), (64, 4177), (83, 4297), (85, 4336), (86, 4348), (127, 4555), (132, 4594), (157, 4777), (158, 4780), (191, 4912), (193, 4918), (212, 5038), (237, 5092), (250, 5143), (265, 5206), (275, 5239),

Gene: Coffee\_47 Start: 40913, Stop: 42412, Start Num: 34

Candidate Starts for Coffee\_47:

(Start: 31 @40901 has 70 MA's), (Start: 34 @40913 has 37 MA's), (53, 41024), (62, 41120), (72, 41225), (80, 41255), (84, 41300), (85, 41339), (86, 41351), (95, 41477), (99, 41486), (100, 41492), (107, 41510), (111, 41522), (113, 41525), (117, 41537), (119, 41543), (131, 41609), (143, 41741), (151, 41798), (155, 41828), (159, 41849), (172, 41897), (179, 41927), (186, 41957), (189, 41963), (199, 42029), (215, 42086), (241, 42143), (246, 42161), (247, 42164), (265, 42236), (268, 42245), (273, 42254), (299, 42338),

Gene: Commander\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Commander\_8:



(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Conceptll\_9 Start: 4814, Stop: 6247, Start Num: 28

Candidate Starts for Conceptll\_9:

(Start: 28 @4814 has 166 MA's), (Start: 36 @4862 has 4 MA's), (64, 5066), (83, 5168), (84, 5171), (85, 5210), (132, 5465), (154, 5624), (160, 5651), (212, 5882), (229, 5915), (277, 6065), (291, 6107), (306, 6158),

Gene: Connomayer\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Connomayer\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Cookiedough\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Cookiedough\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Corvo\_9 Start: 4770, Stop: 6191, Start Num: 25

Candidate Starts for Corvo\_9:

(Start: 25 @4770 has 52 MA's), (64, 5049), (73, 5091), (85, 5184), (94, 5286), (132, 5409), (154, 5568), (160, 5595), (212, 5826), (229, 5859), (261, 5955), (277, 6009), (291, 6051), (306, 6102),

Gene: Courthouse\_47 Start: 37698, Stop: 39086, Start Num: 25

Candidate Starts for Courthouse\_47:

(Start: 25 @37698 has 52 MA's), (Start: 36 @37749 has 4 MA's), (47, 37797), (62, 37920), (64, 37953), (70, 37986), (84, 38058), (85, 38097), (121, 38295), (123, 38307), (131, 38343), (132, 38358), (155, 38520), (160, 38544), (180, 38631), (212, 38811), (222, 38832), (271, 38964), (272, 38967), (277, 38982), (279, 38985), (301, 39051),

Gene: Crispicous1\_8 Start: 4042, Stop: 5475, Start Num: 28

Candidate Starts for Crispicous1\_8:

(Start: 28 @4042 has 166 MA's), (Start: 36 @4090 has 4 MA's), (64, 4294), (80, 4366), (85, 4438), (132, 4693), (154, 4852), (160, 4879), (212, 5110), (229, 5143), (277, 5293), (291, 5335), (302, 5371), (306, 5386),

Gene: Cueylyss\_9 Start: 4711, Stop: 6144, Start Num: 28

Candidate Starts for Cueylyss\_9:

(Start: 28 @4711 has 166 MA's), (Start: 36 @4759 has 4 MA's), (64, 4963), (84, 5068), (85, 5107), (132, 5362), (154, 5521), (160, 5548), (212, 5779), (229, 5812), (277, 5962), (291, 6004), (306, 6055),

Gene: DD5\_10 Start: 5332, Stop: 6726, Start Num: 32

Candidate Starts for DD5\_10:

(21, 5290), (Start: 32 @5332 has 10 MA's), (47, 5410), (64, 5566), (84, 5671), (85, 5710), (132, 5944), (154, 6103), (160, 6130), (185, 6217), (212, 6361), (229, 6394), (277, 6544), (291, 6586), (302, 6622), (306, 6637),

Gene: DaVinci\_13 Start: 5855, Stop: 7066, Start Num: 31

Candidate Starts for DaVinci\_13:

(Start: 31 @5855 has 70 MA's), (Start: 35 @5873 has 1 MA's), (58, 6020), (59, 6023), (66, 6134), (80, 6197), (85, 6281), (86, 6293), (88, 6326), (129, 6527), (155, 6746), (164, 6773), (168, 6785), (171, 6791), (191, 6854), (245, 7037),

Gene: DARTHPhader\_11 Start: 6529, Stop: 7929, Start Num: 31

Candidate Starts for DARTHPhader\_11:

(Start: 31 @6529 has 70 MA's), (40, 6583), (47, 6619), (48, 6625), (53, 6658), (64, 6775), (77, 6835), (85, 6916), (86, 6928), (103, 7054), (132, 7162), (134, 7192), (155, 7324), (194, 7462), (200, 7534), (203, 7543), (213, 7582), (217, 7591), (230, 7615), (254, 7678), (261, 7699), (271, 7735), (288, 7792),

Gene: Datway\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Datway\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (280, 5262), (286, 5280), (304, 5346), (309, 5367),

Gene: Deano\_8 Start: 3927, Stop: 5429, Start Num: 26

Candidate Starts for Deano\_8:

(Start: 26 @3927 has 172 MA's), (53, 4062), (64, 4179), (83, 4299), (85, 4338), (86, 4350), (102, 4488), (127, 4557), (132, 4596), (157, 4779), (158, 4782), (191, 4914), (193, 4920), (212, 5040), (237, 5094), (250, 5145), (265, 5208), (275, 5241),

Gene: Dexes\_10 Start: 5198, Stop: 6631, Start Num: 28

Candidate Starts for Dexes\_10:

(Start: 28 @5198 has 166 MA's), (Start: 36 @5246 has 4 MA's), (64, 5450), (83, 5552), (84, 5555), (85, 5594), (132, 5849), (154, 6008), (160, 6035), (212, 6266), (229, 6299), (261, 6395), (277, 6449), (291, 6491), (306, 6542),

Gene: Dhanush\_8 Start: 3924, Stop: 5426, Start Num: 26

Candidate Starts for Dhanush\_8:

(Start: 26 @3924 has 172 MA's), (53, 4059), (64, 4176), (83, 4296), (85, 4335), (86, 4347), (127, 4554), (132, 4593), (157, 4776), (158, 4779), (165, 4812), (191, 4911), (193, 4917), (212, 5037), (237, 5091), (250, 5142), (265, 5205), (275, 5238),

Gene: Dignity\_11 Start: 5061, Stop: 6383, Start Num: 26

Candidate Starts for Dignity\_11:

(Start: 26 @5061 has 172 MA's), (45, 5145), (48, 5163), (58, 5238), (75, 5379), (85, 5472), (86, 5484), (88, 5532), (121, 5628), (136, 5700), (145, 5748), (203, 5967), (212, 6000), (237, 6054), (250, 6105), (262, 6150), (265, 6168), (286, 6231), (309, 6318),

Gene: DirtyDunning\_8 Start: 3926, Stop: 5428, Start Num: 26

Candidate Starts for DirtyDunning\_8:

(Start: 26 @3926 has 172 MA's), (53, 4061), (64, 4178), (83, 4298), (85, 4337), (86, 4349), (127, 4556), (132, 4595), (157, 4778), (158, 4781), (191, 4913), (193, 4919), (212, 5039), (237, 5093), (250, 5144), (265, 5207), (275, 5240),

Gene: Doom\_9 Start: 4836, Stop: 6269, Start Num: 28

Candidate Starts for Doom\_9:

(Start: 28 @4836 has 166 MA's), (Start: 36 @4884 has 4 MA's), (64, 5088), (83, 5190), (84, 5193), (85, 5232), (94, 5364), (132, 5487), (154, 5646), (160, 5673), (185, 5760), (212, 5904), (229, 5937), (261, 6033), (277, 6087), (291, 6129), (306, 6180),

Gene: Dorothea\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Dorothea\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (58, 6019), (59, 6022), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (164, 6772), (168, 6784), (171, 6790), (191, 6853), (245, 7036),

Gene: DrFeelGood\_8 Start: 4360, Stop: 5793, Start Num: 28

Candidate Starts for DrFeelGood\_8:

(Start: 28 @4360 has 166 MA's), (Start: 36 @4408 has 4 MA's), (64, 4612), (83, 4714), (84, 4717), (85, 4756), (132, 5011), (154, 5170), (160, 5197), (212, 5428), (229, 5461), (277, 5611), (291, 5653), (306, 5704),

Gene: Drake94\_8 Start: 2277, Stop: 3773, Start Num: 31

Candidate Starts for Drake94\_8:

(Start: 31 @2277 has 70 MA's), (Start: 35 @2295 has 1 MA's), (59, 2445), (66, 2556), (72, 2589), (79, 2610), (85, 2703), (86, 2715), (88, 2748), (124, 2955), (148, 3147), (150, 3162), (153, 3189), (174, 3273), (175, 3279), (199, 3399), (207, 3423), (210, 3435), (219, 3462), (252, 3552), (256, 3567), (274, 3624), (297, 3705),

Gene: DreamCatcher\_10 Start: 4964, Stop: 6385, Start Num: 25

Candidate Starts for DreamCatcher\_10:

(Start: 25 @4964 has 52 MA's), (64, 5243), (73, 5285), (85, 5378), (94, 5480), (132, 5603), (154, 5762), (160, 5789), (185, 5876), (212, 6020), (229, 6053), (261, 6149), (277, 6203), (291, 6245), (302, 6281), (306, 6296),

Gene: Dreamboat\_10 Start: 4452, Stop: 5921, Start Num: 28

Candidate Starts for Dreamboat\_10:

(Start: 28 @4452 has 166 MA's), (Start: 36 @4500 has 4 MA's), (64, 4704), (83, 4806), (84, 4809), (85, 4848), (94, 4980), (132, 5103), (154, 5262), (160, 5289), (180, 5364), (182, 5373), (212, 5556), (229, 5589), (277, 5739), (291, 5781), (306, 5832),

Gene: DroogsArmy\_9 Start: 5305, Stop: 6657, Start Num: 26

Candidate Starts for DroogsArmy\_9:

(18, 5275), (Start: 26 @5305 has 172 MA's), (52, 5443), (64, 5563), (85, 5725), (86, 5737), (88, 5785), (120, 5890), (139, 5983), (156, 6097), (157, 6103), (212, 6316), (265, 6457), (313, 6619), (318, 6640),

Gene: Druantia\_8 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for Druantia\_8:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (82, 4276), (83, 4294), (85, 4333), (86, 4345), (102, 4483), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: Dulcie\_8 Start: 4256, Stop: 5668, Start Num: 28

Candidate Starts for Dulcie\_8:

(Start: 28 @4256 has 166 MA's), (Start: 36 @4304 has 4 MA's), (64, 4508), (80, 4580), (84, 4613), (85, 4652), (132, 4886), (154, 5045), (212, 5303), (229, 5336), (277, 5486), (291, 5528), (306, 5579),

Gene: DuncansLeg\_26 Start: 24945, Stop: 26417, Start Num: 28

Candidate Starts for DuncansLeg\_26:

(Start: 28 @24945 has 166 MA's), (Start: 36 @24993 has 4 MA's), (48, 25047), (52, 25077), (53, 25080), (64, 25197), (85, 25341), (86, 25353), (132, 25581), (141, 25650), (158, 25767), (191, 25899), (192, 25902), (193, 25905), (212, 26025), (229, 26058), (233, 26070), (250, 26130), (272, 26208), (314, 26373),

Gene: Dussy\_10 Start: 4617, Stop: 6029, Start Num: 28

Candidate Starts for Dussy\_10:

(Start: 28 @4617 has 166 MA's), (Start: 36 @4665 has 4 MA's), (64, 4869), (80, 4941), (84, 4974), (85, 5013), (132, 5247), (154, 5406), (160, 5433), (212, 5664), (229, 5697), (277, 5847), (291, 5889), (306, 5940),

Gene: Dynamix\_9 Start: 4309, Stop: 5742, Start Num: 28

Candidate Starts for Dynamix\_9:

(Start: 28 @4309 has 166 MA's), (Start: 36 @4357 has 4 MA's), (48, 4411), (64, 4561), (83, 4663), (84, 4666), (85, 4705), (132, 4960), (154, 5119), (160, 5146), (185, 5233), (212, 5377), (229, 5410), (261, 5506), (277, 5560), (291, 5602), (306, 5653),

Gene: Eagle\_7 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Eagle\_7:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Eaglehorse\_47 Start: 40837, Stop: 42336, Start Num: 34

Candidate Starts for Eaglehorse\_47:

(Start: 31 @40825 has 70 MA's), (Start: 34 @40837 has 37 MA's), (53, 40948), (62, 41044), (72, 41149), (80, 41179), (84, 41224), (85, 41263), (86, 41275), (95, 41401), (99, 41410), (100, 41416), (107, 41434), (111, 41446), (113, 41449), (117, 41461), (119, 41467), (131, 41533), (143, 41665), (151, 41722), (155, 41752), (159, 41773), (172, 41821), (179, 41851), (186, 41881), (189, 41887), (199, 41953), (215, 42010), (241, 42067), (246, 42085), (247, 42088), (265, 42160), (268, 42169), (273, 42178), (299, 42262),

Gene: Eapen\_8 Start: 3923, Stop: 5425, Start Num: 26

Candidate Starts for Eapen\_8:

(Start: 26 @3923 has 172 MA's), (53, 4058), (64, 4175), (83, 4295), (85, 4334), (86, 4346), (102, 4484), (127, 4553), (132, 4592), (157, 4775), (158, 4778), (191, 4910), (193, 4916), (212, 5036), (237, 5090), (250, 5141), (265, 5204), (275, 5237),

Gene: Edtherson\_10 Start: 5105, Stop: 6526, Start Num: 25

Candidate Starts for Edtherson\_10:

(16, 5069), (Start: 20 @5078 has 3 MA's), (Start: 25 @5105 has 52 MA's), (64, 5384), (73, 5426), (85, 5519), (94, 5621), (132, 5744), (154, 5903), (160, 5930), (212, 6161), (229, 6194), (261, 6290), (277, 6344), (291, 6386), (306, 6437),

Gene: Ellson\_26 Start: 24932, Stop: 26404, Start Num: 28

Candidate Starts for Ellson\_26:

(Start: 28 @24932 has 166 MA's), (Start: 36 @24980 has 4 MA's), (48, 25034), (52, 25064), (53, 25067), (64, 25184), (85, 25328), (86, 25340), (132, 25568), (141, 25637), (154, 25736), (158, 25754), (191, 25886), (192, 25889), (193, 25892), (212, 26012), (229, 26045), (233, 26057), (250, 26117), (272, 26195), (314, 26360),

Gene: EnzoK\_9 Start: 4827, Stop: 6260, Start Num: 28

Candidate Starts for EnzoK\_9:

(Start: 28 @4827 has 166 MA's), (Start: 36 @4875 has 4 MA's), (64, 5079), (83, 5181), (84, 5184), (85, 5223), (94, 5355), (132, 5478), (154, 5637), (160, 5664), (212, 5895), (229, 5928), (261, 6024), (277, 6078), (291, 6120), (306, 6171),

Gene: EricB\_13 Start: 5855, Stop: 7066, Start Num: 31

Candidate Starts for EricB\_13:

(Start: 31 @5855 has 70 MA's), (Start: 35 @5873 has 1 MA's), (59, 6023), (60, 6038), (66, 6134), (80, 6197), (85, 6281), (86, 6293), (88, 6326), (129, 6527), (155, 6746), (168, 6785), (171, 6791), (191, 6854),

Gene: Eris\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Eris\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Eros\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Eros\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Espresso\_9 Start: 4689, Stop: 6122, Start Num: 28

Candidate Starts for Espresso\_9:

(Start: 28 @4689 has 166 MA's), (Start: 36 @4737 has 4 MA's), (48, 4791), (64, 4941), (83, 5043), (84, 5046), (85, 5085), (132, 5340), (154, 5499), (212, 5757), (229, 5790), (277, 5940), (291, 5982), (306, 6033),

Gene: Euphoria\_9 Start: 4597, Stop: 6018, Start Num: 25

Candidate Starts for Euphoria\_9:

(Start: 25 @4597 has 52 MA's), (64, 4876), (73, 4918), (85, 5011), (94, 5113), (132, 5236), (154, 5395), (160, 5422), (212, 5653), (229, 5686), (261, 5782), (277, 5836), (291, 5878), (306, 5929),

Gene: Eurydice\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Eurydice\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: EvilGenius\_11 Start: 5065, Stop: 6387, Start Num: 26

Candidate Starts for EvilGenius\_11:

(Start: 26 @5065 has 172 MA's), (45, 5149), (48, 5167), (58, 5242), (69, 5350), (75, 5383), (85, 5476), (86, 5488), (88, 5536), (106, 5608), (121, 5620), (203, 5959), (212, 5992), (237, 6046), (250, 6097), (260, 6139), (263, 6145), (286, 6223), (309, 6313), (311, 6325),

Gene: Eyeball\_9 Start: 4353, Stop: 5765, Start Num: 28

Candidate Starts for Eyeball\_9:

(Start: 28 @4353 has 166 MA's), (Start: 36 @4401 has 4 MA's), (64, 4605), (80, 4677), (84, 4710), (85, 4749), (132, 4983), (154, 5142), (160, 5169), (212, 5400), (229, 5433), (261, 5529), (277, 5583), (291, 5625), (306, 5676),

Gene: Fajezeel\_10 Start: 4419, Stop: 5840, Start Num: 25

Candidate Starts for Fajezeel\_10:

(Start: 25 @4419 has 52 MA's), (64, 4698), (73, 4740), (85, 4833), (94, 4935), (132, 5058), (154, 5217), (160, 5244), (212, 5475), (229, 5508), (277, 5658), (291, 5700), (306, 5751),

Gene: Fascinus\_8 Start: 4335, Stop: 5768, Start Num: 28

Candidate Starts for Fascinus\_8:

(Start: 28 @4335 has 166 MA's), (Start: 36 @4383 has 4 MA's), (64, 4587), (83, 4689), (84, 4692), (85, 4731), (132, 4986), (154, 5145), (160, 5172), (212, 5403), (229, 5436), (261, 5532), (277, 5586), (291, 5628), (306, 5679),

Gene: Faze9\_46 Start: 40933, Stop: 42432, Start Num: 34

Candidate Starts for Faze9\_46:

(Start: 31 @40921 has 70 MA's), (Start: 34 @40933 has 37 MA's), (53, 41044), (62, 41140), (72, 41245), (80, 41275), (82, 41287), (84, 41320), (85, 41359), (86, 41371), (95, 41497), (99, 41506), (100, 41512), (107, 41530), (111, 41542), (113, 41545), (117, 41557), (119, 41563), (131, 41629), (143, 41761), (151, 41818), (155, 41848), (159, 41869), (172, 41917), (179, 41947), (186, 41977), (189, 41983), (199, 42049), (215, 42106), (241, 42163), (246, 42181), (247, 42184), (265, 42256), (268, 42265), (273, 42274), (299, 42358),

Gene: Fenn\_9 Start: 4539, Stop: 5972, Start Num: 28

Candidate Starts for Fenn\_9:

(Start: 28 @4539 has 166 MA's), (Start: 36 @4587 has 4 MA's), (48, 4641), (64, 4791), (83, 4893), (84, 4896), (85, 4935), (132, 5190), (154, 5349), (160, 5376), (185, 5463), (212, 5607), (229, 5640), (277, 5790), (291, 5832), (302, 5868), (306, 5883),

Gene: Finnry\_26 Start: 24966, Stop: 26438, Start Num: 28

Candidate Starts for Finnry\_26:

(Start: 28 @24966 has 166 MA's), (Start: 36 @25014 has 4 MA's), (48, 25068), (52, 25098), (53, 25101), (58, 25143), (64, 25218), (85, 25362), (86, 25374), (132, 25602), (141, 25671), (158, 25788), (191, 25920), (193, 25926), (212, 26046), (229, 26079), (233, 26091), (250, 26151), (272, 26229), (314, 26394),

Gene: FlagStaff\_26 Start: 25277, Stop: 26638, Start Num: 30

Candidate Starts for FlagStaff\_26:

(Start: 30 @25277 has 1 MA's), (49, 25379), (50, 25382), (51, 25400), (62, 25490), (77, 25583), (81, 25601), (84, 25625), (85, 25664), (104, 25841), (107, 25853), (119, 25883), (132, 25964), (133, 25979), (147, 26066), (155, 26126), (158, 26141), (159, 26147), (184, 26237), (188, 26264), (212, 26408), (231, 26447),

Gene: Florean\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Florean\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Flux\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Flux\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: ForDig\_41 Start: 38314, Stop: 39828, Start Num: 15

Candidate Starts for ForDig\_41:

(15, 38314), (Start: 31 @38353 has 70 MA's), (Start: 33 @38359 has 1 MA's), (Start: 35 @38371 has 1 MA's), (72, 38665), (79, 38686), (80, 38695), (83, 38725), (84, 38728), (85, 38767), (86, 38779), (95, 38908), (107, 38962), (129, 39061), (132, 39088), (133, 39103), (143, 39208), (146, 39232), (151, 39265), (155, 39295), (159, 39316), (178, 39394), (192, 39442), (215, 39553), (240, 39607), (244, 39619), (245, 39622), (281, 39742),

Gene: Forsytheast\_8 Start: 4599, Stop: 6032, Start Num: 28

Candidate Starts for Forsytheast\_8:

(Start: 28 @4599 has 166 MA's), (Start: 36 @4647 has 4 MA's), (64, 4851), (83, 4953), (84, 4956), (85, 4995), (94, 5127), (132, 5250), (154, 5409), (160, 5436), (212, 5667), (229, 5700), (277, 5850), (291, 5892), (306, 5943),

Gene: Francis47\_9 Start: 4857, Stop: 6269, Start Num: 28

Candidate Starts for Francis47\_9:

(Start: 28 @4857 has 166 MA's), (Start: 36 @4905 has 4 MA's), (64, 5109), (80, 5181), (84, 5214), (85, 5253), (132, 5487), (154, 5646), (160, 5673), (212, 5904), (229, 5937), (277, 6087), (291, 6129), (306, 6180),

Gene: FrenchFry\_47 Start: 40927, Stop: 42426, Start Num: 34

Candidate Starts for FrenchFry\_47:

(Start: 31 @40915 has 70 MA's), (Start: 34 @40927 has 37 MA's), (53, 41038), (62, 41134), (72, 41239), (80, 41269), (84, 41314), (85, 41353), (86, 41365), (95, 41491), (99, 41500), (100, 41506), (107, 41524), (111, 41536), (113, 41539), (117, 41551), (119, 41557), (131, 41623), (135, 41674), (143, 41755), (151, 41812), (155, 41842), (159, 41863), (172, 41911), (179, 41941), (186, 41971), (189, 41977), (199, 42043), (215, 42100), (241, 42157), (246, 42175), (247, 42178), (265, 42250), (268, 42259), (273, 42268), (299, 42352),

Gene: Froghopper\_10 Start: 4278, Stop: 5711, Start Num: 28

Candidate Starts for Froghopper\_10:

(Start: 28 @4278 has 166 MA's), (Start: 36 @4326 has 4 MA's), (64, 4530), (83, 4632), (84, 4635), (85, 4674), (94, 4806), (132, 4929), (154, 5088), (160, 5115), (212, 5346), (229, 5379), (277, 5529), (291, 5571), (306, 5622),

Gene: Funsized\_50 Start: 43311, Stop: 44798, Start Num: 31

Candidate Starts for Funsized\_50:

(Start: 31 @43311 has 70 MA's), (Start: 35 @43326 has 1 MA's), (53, 43431), (66, 43587), (72, 43620), (80, 43650), (83, 43680), (85, 43722), (86, 43734), (88, 43776), (93, 43863), (107, 43920), (118, 43953), (119, 43959), (132, 44040), (133, 44055), (142, 44148), (149, 44193), (155, 44250), (159, 44271), (178, 44349), (215, 44517), (223, 44529), (240, 44571), (245, 44586), (268, 44673), (293, 44742),

Gene: Funston\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Funston\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Fushigi\_9 Start: 4498, Stop: 5931, Start Num: 28

Candidate Starts for Fushigi\_9:

(Start: 28 @4498 has 166 MA's), (Start: 36 @4546 has 4 MA's), (64, 4750), (83, 4852), (84, 4855), (85, 4894), (132, 5149), (154, 5308), (160, 5335), (212, 5566), (229, 5599), (261, 5695), (277, 5749), (291, 5791), (306, 5842),

Gene: GMonster\_8 Start: 4204, Stop: 5637, Start Num: 28

Candidate Starts for GMonster\_8:

(Start: 28 @4204 has 166 MA's), (Start: 36 @4252 has 4 MA's), (48, 4306), (64, 4456), (83, 4558), (84, 4561), (85, 4600), (132, 4855), (154, 5014), (160, 5041), (212, 5272), (229, 5305), (261, 5401), (277, 5455), (291, 5497), (306, 5548),

Gene: Gadost\_8 Start: 3925, Stop: 5427, Start Num: 26

Candidate Starts for Gadost\_8:

(Start: 26 @3925 has 172 MA's), (53, 4060), (64, 4177), (83, 4297), (85, 4336), (86, 4348), (127, 4555), (132, 4594), (157, 4777), (158, 4780), (191, 4912), (193, 4918), (212, 5038), (237, 5092), (250, 5143), (265, 5206), (275, 5239),

Gene: GageAP\_10 Start: 4823, Stop: 6256, Start Num: 28

Candidate Starts for GageAP\_10:

(Start: 28 @4823 has 166 MA's), (Start: 36 @4871 has 4 MA's), (64, 5075), (83, 5177), (84, 5180), (85, 5219), (132, 5474), (154, 5633), (212, 5891), (229, 5924), (277, 6074), (291, 6116), (306, 6167),

Gene: Gandalf20\_10 Start: 5405, Stop: 6826, Start Num: 25

Candidate Starts for Gandalf20\_10:

(16, 5369), (Start: 20 @5378 has 3 MA's), (Start: 25 @5405 has 52 MA's), (64, 5684), (73, 5726), (85, 5819), (94, 5921), (132, 6044), (154, 6203), (160, 6230), (212, 6461), (229, 6494), (277, 6644), (291, 6686), (306, 6737),

Gene: Garak\_14 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Garak\_14:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: GaugeLDP\_11 Start: 5849, Stop: 7321, Start Num: 26

Candidate Starts for GaugeLDP\_11:

(Start: 26 @5849 has 172 MA's), (53, 5984), (64, 6101), (83, 6221), (85, 6260), (86, 6272), (102, 6407), (132, 6515), (157, 6698), (191, 6833), (192, 6836), (193, 6839), (212, 6959), (224, 6983), (234, 7007), (238, 7022), (265, 7121), (287, 7187), (310, 7253),

Gene: Gladiator\_13 Start: 5825, Stop: 7039, Start Num: 31

Candidate Starts for Gladiator\_13:

(Start: 31 @5825 has 70 MA's), (Start: 35 @5843 has 1 MA's), (59, 5993), (66, 6104), (72, 6137), (80, 6167), (85, 6251), (86, 6263), (88, 6296), (92, 6368), (99, 6386), (120, 6452), (129, 6500), (155, 6719), (164, 6746), (168, 6758), (171, 6764), (191, 6827), (245, 7010),

Gene: Glass\_47 Start: 40927, Stop: 42426, Start Num: 34

Candidate Starts for Glass\_47:

(Start: 31 @40915 has 70 MA's), (Start: 34 @40927 has 37 MA's), (53, 41038), (62, 41134), (72, 41239), (80, 41269), (84, 41314), (85, 41353), (86, 41365), (95, 41491), (99, 41500), (100, 41506), (107, 41524), (111, 41536), (113, 41539), (117, 41551), (119, 41557), (131, 41623), (143, 41755), (151, 41812), (155, 41842), (159, 41863), (172, 41911), (179, 41941), (186, 41971), (189, 41977), (199, 42043), (215, 42100), (241, 42157), (246, 42175), (247, 42178), (265, 42250), (268, 42259), (273, 42268), (299, 42352),

Gene: Godines\_47 Start: 40869, Stop: 42368, Start Num: 34

Candidate Starts for Godines\_47:

(Start: 31 @40857 has 70 MA's), (Start: 34 @40869 has 37 MA's), (53, 40980), (62, 41076), (72, 41181), (80, 41211), (84, 41256), (85, 41295), (86, 41307), (95, 41433), (99, 41442), (100, 41448), (107, 41466), (111, 41478), (113, 41481), (117, 41493), (119, 41499), (131, 41565), (143, 41697), (151, 41754), (155, 41784), (159, 41805), (172, 41853), (179, 41883), (186, 41913), (189, 41919), (199, 41985), (215, 42042), (241, 42099), (246, 42117), (247, 42120), (265, 42192), (268, 42201), (273, 42210), (299, 42294),



Gene: Gompeii16\_9 Start: 4796, Stop: 6229, Start Num: 28

Candidate Starts for Gompeii16\_9:

(Start: 28 @4796 has 166 MA's), (Start: 36 @4844 has 4 MA's), (64, 5048), (83, 5150), (84, 5153), (85, 5192), (132, 5447), (154, 5606), (160, 5633), (212, 5864), (229, 5897), (277, 6047), (291, 6089), (306, 6140),

Gene: Gonephishing\_49 Start: 39030, Stop: 40364, Start Num: 25

Candidate Starts for Gonephishing\_49:

(Start: 25 @39030 has 52 MA's), (55, 39162), (62, 39234), (70, 39300), (76, 39327), (78, 39330), (81, 39345), (84, 39369), (85, 39408), (87, 39420), (94, 39522), (122, 39591), (132, 39645), (159, 39855), (212, 40089), (222, 40110), (271, 40242), (272, 40245), (277, 40260), (279, 40263), (301, 40329),

Gene: Graduation\_11 Start: 5397, Stop: 6791, Start Num: 32

Candidate Starts for Graduation\_11:

(21, 5355), (Start: 32 @5397 has 10 MA's), (47, 5475), (64, 5631), (71, 5667), (84, 5736), (85, 5775), (132, 6009), (154, 6168), (160, 6195), (212, 6426), (229, 6459), (261, 6555), (277, 6609), (291, 6651), (306, 6702),

Gene: GrecoEtereo\_10 Start: 4902, Stop: 6335, Start Num: 28

Candidate Starts for GrecoEtereo\_10:

(Start: 28 @4902 has 166 MA's), (Start: 36 @4950 has 4 MA's), (64, 5154), (83, 5256), (84, 5259), (85, 5298), (132, 5553), (154, 5712), (160, 5739), (212, 5970), (229, 6003), (277, 6153), (291, 6195), (306, 6246),

Gene: GreedyLawyer\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for GreedyLawyer\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (58, 6019), (59, 6022), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (164, 6772), (168, 6784), (171, 6790), (191, 6853), (245, 7036),

Gene: Greg\_10 Start: 4419, Stop: 5840, Start Num: 25

Candidate Starts for Greg\_10:

(Start: 25 @4419 has 52 MA's), (64, 4698), (73, 4740), (85, 4833), (94, 4935), (132, 5058), (154, 5217), (160, 5244), (212, 5475), (229, 5508), (277, 5658), (291, 5700), (306, 5751),

Gene: Gruunaga\_13 Start: 5825, Stop: 7039, Start Num: 31

Candidate Starts for Gruunaga\_13:

(Start: 31 @5825 has 70 MA's), (Start: 35 @5843 has 1 MA's), (59, 5993), (66, 6104), (72, 6137), (80, 6167), (85, 6251), (86, 6263), (88, 6296), (92, 6368), (99, 6386), (120, 6452), (129, 6500), (155, 6719), (164, 6746), (168, 6758), (171, 6764), (191, 6827), (245, 7010),

Gene: Gwendoluna\_10 Start: 5281, Stop: 6711, Start Num: 32

Candidate Starts for Gwendoluna\_10:

(21, 5239), (Start: 32 @5281 has 10 MA's), (47, 5359), (64, 5515), (84, 5620), (85, 5659), (132, 5893), (154, 6052), (160, 6079), (178, 6154), (212, 6346), (229, 6379), (261, 6475), (277, 6529), (291, 6571), (306, 6622),

Gene: Gyzlar\_10 Start: 5037, Stop: 6470, Start Num: 28

Candidate Starts for Gyzlar\_10:

(Start: 28 @5037 has 166 MA's), (Start: 36 @5085 has 4 MA's), (64, 5289), (83, 5391), (84, 5394), (85, 5433), (132, 5688), (154, 5847), (212, 6105), (229, 6138), (277, 6288), (291, 6330), (306, 6381),

Gene: HINdeR\_8 Start: 5403, Stop: 6755, Start Num: 26

Candidate Starts for HINdeR\_8:

(23, 5388), (Start: 26 @5403 has 172 MA's), (47, 5505), (52, 5541), (64, 5661), (85, 5823), (86, 5835), (88, 5883), (120, 5988), (139, 6081), (156, 6195), (157, 6201), (212, 6414), (265, 6555), (288, 6624), (313, 6717), (318, 6738),

Gene: HamSlice\_7 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for HamSlice\_7:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (83, 4294), (85, 4333), (86, 4345), (102, 4483), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: Hami1\_9 Start: 4645, Stop: 6024, Start Num: 36

Candidate Starts for Hami1\_9:

(Start: 28 @4597 has 166 MA's), (Start: 36 @4645 has 4 MA's), (64, 4849), (83, 4951), (84, 4954), (85, 4993), (132, 5248), (154, 5407), (160, 5434), (212, 5665), (229, 5698), (261, 5794), (277, 5848), (291, 5890), (306, 5941),

Gene: Hammer\_13 Start: 5825, Stop: 7039, Start Num: 31

Candidate Starts for Hammer\_13:

(Start: 31 @5825 has 70 MA's), (Start: 35 @5843 has 1 MA's), (59, 5993), (66, 6104), (72, 6137), (80, 6167), (85, 6251), (86, 6263), (88, 6296), (92, 6368), (129, 6500), (155, 6719), (164, 6746), (168, 6758), (171, 6764), (191, 6827),

Gene: HanShotFirst\_9 Start: 4212, Stop: 5633, Start Num: 25

Candidate Starts for HanShotFirst\_9:

(Start: 25 @4212 has 52 MA's), (64, 4491), (73, 4533), (85, 4626), (94, 4728), (105, 4752), (132, 4851), (154, 5010), (160, 5037), (212, 5268), (229, 5301), (277, 5451), (291, 5493), (306, 5544),

Gene: Happiness\_8 Start: 3926, Stop: 5428, Start Num: 26

Candidate Starts for Happiness\_8:

(Start: 26 @3926 has 172 MA's), (53, 4061), (64, 4178), (83, 4298), (85, 4337), (86, 4349), (102, 4487), (127, 4556), (132, 4595), (157, 4778), (158, 4781), (191, 4913), (193, 4919), (212, 5039), (237, 5093), (250, 5144), (265, 5207), (275, 5240),

Gene: HarryOW\_10 Start: 4902, Stop: 6335, Start Num: 28

Candidate Starts for HarryOW\_10:

(Start: 28 @4902 has 166 MA's), (Start: 36 @4950 has 4 MA's), (64, 5154), (83, 5256), (84, 5259), (85, 5298), (132, 5553), (154, 5712), (160, 5739), (212, 5970), (229, 6003), (277, 6153), (291, 6195), (306, 6246),

Gene: Hashim76\_49 Start: 39785, Stop: 41302, Start Num: 31

Candidate Starts for Hashim76\_49:

(1, 38789), (2, 38939), (3, 38966), (6, 39326), (8, 39356), (9, 39413), (11, 39674), (15, 39731), (Start: 31 @39785 has 70 MA's), (Start: 34 @39797 has 37 MA's), (53, 39908), (56, 39929), (67, 40070), (79, 40118), (80, 40127), (83, 40157), (85, 40199), (86, 40211), (107, 40394), (132, 40514), (151, 40694), (172, 40793), (178, 40823), (215, 40979), (251, 41075), (257, 41096), (266, 41132), (282, 41180), (312, 41288),

Gene: Hedgerow\_47 Start: 40909, Stop: 42408, Start Num: 34

Candidate Starts for Hedgerow\_47:

(Start: 31 @40897 has 70 MA's), (Start: 34 @40909 has 37 MA's), (53, 41020), (62, 41116), (72, 41221), (80, 41251), (84, 41296), (85, 41335), (86, 41347), (95, 41473), (99, 41482), (100, 41488), (107, 41506), (111, 41518), (113, 41521), (117, 41533), (119, 41539), (131, 41605), (143, 41737),

(151, 41794), (155, 41824), (159, 41845), (172, 41893), (179, 41923), (186, 41953), (189, 41959), (199, 42025), (215, 42082), (241, 42139), (246, 42157), (247, 42160), (265, 42232), (268, 42241), (273, 42250), (299, 42334),

Gene: Helmet\_14 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Helmet\_14:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Herbertwm\_8 Start: 4486, Stop: 5889, Start Num: 31

Candidate Starts for Herbertwm\_8:

(Start: 31 @4486 has 70 MA's), (40, 4540), (48, 4582), (53, 4615), (64, 4732), (77, 4792), (85, 4873), (86, 4885), (103, 5011), (110, 5038), (132, 5119), (155, 5281), (160, 5305), (177, 5368), (185, 5392), (200, 5491), (205, 5506), (206, 5509), (213, 5539), (227, 5563), (258, 5647), (265, 5680), (287, 5746), (294, 5770),

Gene: Hermia\_11 Start: 5358, Stop: 6779, Start Num: 25

Candidate Starts for Hermia\_11:

(16, 5322), (Start: 20 @5331 has 3 MA's), (Start: 25 @5358 has 52 MA's), (64, 5637), (73, 5679), (85, 5772), (94, 5874), (132, 5997), (154, 6156), (160, 6183), (212, 6414), (229, 6447), (277, 6597), (291, 6639), (306, 6690),

Gene: HermioneGrange\_10 Start: 4321, Stop: 5742, Start Num: 25

Candidate Starts for HermioneGrange\_10:

(Start: 25 @4321 has 52 MA's), (64, 4600), (73, 4642), (85, 4735), (94, 4837), (132, 4960), (154, 5119), (160, 5146), (212, 5377), (229, 5410), (261, 5506), (277, 5560), (291, 5602), (306, 5653),

Gene: Hexamo\_13 Start: 5809, Stop: 7020, Start Num: 31

Candidate Starts for Hexamo\_13:

(Start: 31 @5809 has 70 MA's), (Start: 35 @5827 has 1 MA's), (59, 5977), (60, 5992), (66, 6088), (80, 6151), (85, 6235), (86, 6247), (88, 6280), (129, 6481), (155, 6700), (168, 6739), (171, 6745), (191, 6808),

Gene: Holeinone\_47 Start: 40789, Stop: 42288, Start Num: 34

Candidate Starts for Holeinone\_47:

(Start: 31 @40777 has 70 MA's), (Start: 34 @40789 has 37 MA's), (53, 40900), (62, 40996), (72, 41101), (80, 41131), (84, 41176), (85, 41215), (86, 41227), (95, 41353), (99, 41362), (100, 41368), (107, 41386), (111, 41398), (113, 41401), (117, 41413), (119, 41419), (131, 41485), (143, 41617), (151, 41674), (155, 41704), (159, 41725), (172, 41773), (179, 41803), (186, 41833), (189, 41839), (199, 41905), (215, 41962), (241, 42019), (246, 42037), (247, 42040), (265, 42112), (268, 42121), (273, 42130), (299, 42214),

Gene: Holli\_8 Start: 3714, Stop: 5216, Start Num: 26

Candidate Starts for Holli\_8:

(Start: 26 @3714 has 172 MA's), (53, 3849), (64, 3966), (82, 4068), (83, 4086), (85, 4125), (86, 4137), (102, 4275), (127, 4344), (132, 4383), (157, 4566), (158, 4569), (191, 4701), (193, 4707), (212, 4827), (237, 4881), (250, 4932), (265, 4995), (275, 5028),

Gene: Homines\_9 Start: 4615, Stop: 6048, Start Num: 28

Candidate Starts for Homines\_9:

(Start: 28 @4615 has 166 MA's), (Start: 36 @4663 has 4 MA's), (64, 4867), (83, 4969), (84, 4972), (85, 5011), (132, 5266), (154, 5425), (160, 5452), (212, 5683), (229, 5716), (277, 5866), (291, 5908), (306,

5959),

Gene: Hoot\_13 Start: 5833, Stop: 7044, Start Num: 31

Candidate Starts for Hoot\_13:

(Start: 31 @5833 has 70 MA's), (Start: 35 @5851 has 1 MA's), (58, 5998), (59, 6001), (66, 6112), (80, 6175), (85, 6259), (86, 6271), (88, 6304), (129, 6505), (155, 6724), (164, 6751), (168, 6763), (171, 6769), (191, 6832), (245, 7015),

Gene: Hope4ever\_9 Start: 4717, Stop: 6150, Start Num: 28

Candidate Starts for Hope4ever\_9:

(Start: 28 @4717 has 166 MA's), (Start: 36 @4765 has 4 MA's), (48, 4819), (64, 4969), (83, 5071), (84, 5074), (85, 5113), (132, 5368), (154, 5527), (212, 5785), (229, 5818), (261, 5914), (277, 5968), (291, 6010), (306, 6061),

Gene: Hosp\_038 Start: 36560, Stop: 38038, Start Num: 31

Candidate Starts for Hosp\_038:

(15, 36521), (Start: 31 @36560 has 70 MA's), (Start: 33 @36566 has 1 MA's), (Start: 34 @36572 has 37 MA's), (53, 36683), (58, 36725), (59, 36728), (72, 36872), (79, 36893), (80, 36902), (83, 36932), (85, 36974), (86, 36986), (88, 37028), (107, 37172), (119, 37214), (129, 37271), (132, 37298), (133, 37313), (143, 37418), (155, 37505), (159, 37526), (169, 37565), (178, 37604), (192, 37652), (215, 37763), (240, 37817), (244, 37829), (245, 37832), (281, 37952),

Gene: Houdini22\_8 Start: 3925, Stop: 5427, Start Num: 26

Candidate Starts for Houdini22\_8:

(Start: 26 @3925 has 172 MA's), (53, 4060), (64, 4177), (83, 4297), (85, 4336), (86, 4348), (127, 4555), (132, 4594), (157, 4777), (158, 4780), (191, 4912), (193, 4918), (212, 5038), (237, 5092), (250, 5143), (265, 5206), (275, 5239),

Gene: Huxley\_8 Start: 4093, Stop: 5496, Start Num: 42

Candidate Starts for Huxley\_8:

(Start: 26 @4015 has 172 MA's), (Start: 42 @4093 has 2 MA's), (64, 4273), (85, 4432), (86, 4444), (132, 4693), (140, 4762), (157, 4876), (158, 4879), (176, 4948), (191, 5011), (212, 5134), (224, 5158), (265, 5296), (290, 5368), (300, 5389), (305, 5407),

Gene: ICleared\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for ICleared\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: ILeeKay\_11 Start: 4790, Stop: 6202, Start Num: 28

Candidate Starts for ILeeKay\_11:

(Start: 28 @4790 has 166 MA's), (Start: 36 @4838 has 4 MA's), (64, 5042), (80, 5114), (84, 5147), (85, 5186), (132, 5420), (154, 5579), (160, 5606), (212, 5837), (229, 5870), (277, 6020), (291, 6062), (306, 6113),

Gene: Iceman\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Iceman\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Ichabod\_9 Start: 4326, Stop: 5759, Start Num: 28

Candidate Starts for Ichabod\_9:

(Start: 28 @4326 has 166 MA's), (Start: 36 @4374 has 4 MA's), (48, 4428), (64, 4578), (83, 4680), (84, 4683), (85, 4722), (132, 4977), (154, 5136), (160, 5163), (185, 5250), (212, 5394), (229, 5427), (261, 5523), (277, 5577), (291, 5619), (302, 5655), (306, 5670),

Gene: IgnatiusPatJac\_8 Start: 4595, Stop: 6028, Start Num: 28

Candidate Starts for IgnatiusPatJac\_8:

(Start: 28 @4595 has 166 MA's), (Start: 36 @4643 has 4 MA's), (64, 4847), (83, 4949), (84, 4952), (85, 4991), (94, 5123), (132, 5246), (154, 5405), (160, 5432), (212, 5663), (229, 5696), (277, 5846), (291, 5888), (306, 5939),

Gene: Indra\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Indra\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Inyanga\_8 Start: 4384, Stop: 5817, Start Num: 28

Candidate Starts for Inyanga\_8:

(Start: 28 @4384 has 166 MA's), (Start: 36 @4432 has 4 MA's), (64, 4636), (83, 4738), (84, 4741), (85, 4780), (132, 5035), (154, 5194), (160, 5221), (212, 5452), (229, 5485), (261, 5581), (277, 5635), (291, 5677), (306, 5728),

Gene: Iqorha\_8 Start: 4384, Stop: 5817, Start Num: 28

Candidate Starts for Iqorha\_8:

(Start: 28 @4384 has 166 MA's), (Start: 36 @4432 has 4 MA's), (64, 4636), (83, 4738), (84, 4741), (85, 4780), (132, 5035), (154, 5194), (160, 5221), (212, 5452), (229, 5485), (261, 5581), (277, 5635), (291, 5677), (306, 5728),

Gene: Iracema64\_8 Start: 3928, Stop: 5409, Start Num: 26

Candidate Starts for Iracema64\_8:

(Start: 26 @3928 has 172 MA's), (Start: 42 @4006 has 2 MA's), (64, 4186), (85, 4345), (86, 4357), (132, 4606), (140, 4675), (157, 4789), (158, 4792), (176, 4861), (191, 4924), (212, 5047), (224, 5071), (265, 5209), (290, 5281), (300, 5302), (305, 5320),

Gene: IronMan\_11 Start: 6173, Stop: 7669, Start Num: 26

Candidate Starts for IronMan\_11:

(Start: 26 @6173 has 172 MA's), (53, 6308), (64, 6425), (83, 6545), (85, 6584), (86, 6596), (127, 6803), (132, 6842), (140, 6911), (157, 7025), (158, 7028), (191, 7160), (212, 7283), (237, 7337), (250, 7388), (260, 7430), (280, 7496), (286, 7514), (309, 7604),

Gene: Isiphiwo\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Isiphiwo\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: ItsyBitsy1\_47 Start: 40791, Stop: 42290, Start Num: 34

Candidate Starts for ItsyBitsy1\_47:

(Start: 31 @40779 has 70 MA's), (Start: 34 @40791 has 37 MA's), (53, 40902), (62, 40998), (72, 41103), (80, 41133), (84, 41178), (85, 41217), (86, 41229), (95, 41355), (99, 41364), (100, 41370), (107, 41388), (111, 41400), (113, 41403), (117, 41415), (119, 41421), (131, 41487), (135, 41538), (143, 41619), (151, 41676), (155, 41706), (159, 41727), (172, 41775), (179, 41805), (186, 41835),

(189, 41841), (199, 41907), (215, 41964), (241, 42021), (246, 42039), (247, 42042), (265, 42114), (268, 42123), (273, 42132), (299, 42216),

Gene: JC27\_10 Start: 5024, Stop: 6454, Start Num: 28

Candidate Starts for JC27\_10:

(Start: 28 @5024 has 166 MA's), (Start: 36 @5072 has 4 MA's), (64, 5276), (83, 5378), (84, 5381), (85, 5420), (94, 5552), (132, 5675), (154, 5834), (160, 5861), (212, 6092), (229, 6125), (277, 6275), (291, 6317), (306, 6368),

Gene: Jaan\_12 Start: 6539, Stop: 8053, Start Num: 26

Candidate Starts for Jaan\_12:

(13, 6476), (Start: 26 @6539 has 172 MA's), (85, 6950), (86, 6962), (127, 7178), (132, 7217), (140, 7286), (158, 7403), (212, 7658), (232, 7700), (250, 7763), (286, 7889), (309, 7979), (311, 7991),

Gene: JackSparrow\_9 Start: 4591, Stop: 6024, Start Num: 28

Candidate Starts for JackSparrow\_9:

(Start: 28 @4591 has 166 MA's), (Start: 36 @4639 has 4 MA's), (64, 4843), (83, 4945), (84, 4948), (85, 4987), (94, 5119), (132, 5242), (154, 5401), (160, 5428), (212, 5659), (229, 5692), (277, 5842), (291, 5884), (306, 5935),

Gene: Jasper\_10 Start: 4444, Stop: 5865, Start Num: 25

Candidate Starts for Jasper\_10:

(Start: 25 @4444 has 52 MA's), (64, 4723), (73, 4765), (85, 4858), (94, 4960), (132, 5083), (154, 5242), (160, 5269), (185, 5356), (212, 5500), (229, 5533), (261, 5629), (277, 5683), (291, 5725), (306, 5776),

Gene: Jaykayelowell\_8 Start: 3920, Stop: 5422, Start Num: 26

Candidate Starts for Jaykayelowell\_8:

(Start: 26 @3920 has 172 MA's), (53, 4055), (64, 4172), (82, 4274), (83, 4292), (85, 4331), (86, 4343), (102, 4481), (127, 4550), (132, 4589), (157, 4772), (158, 4775), (191, 4907), (193, 4913), (212, 5033), (237, 5087), (250, 5138), (265, 5201), (275, 5234),

Gene: Jeffabunny\_13 Start: 5854, Stop: 7068, Start Num: 31

Candidate Starts for Jeffabunny\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (92, 6397), (99, 6415), (129, 6529), (155, 6748), (164, 6775), (168, 6787), (171, 6793), (191, 6856), (245, 7039),

Gene: Jerm\_11 Start: 5062, Stop: 6375, Start Num: 26

Candidate Starts for Jerm\_11:

(Start: 26 @5062 has 172 MA's), (45, 5146), (48, 5164), (58, 5239), (75, 5380), (85, 5473), (86, 5485), (88, 5533), (121, 5629), (136, 5701), (145, 5749), (202, 5965), (203, 5968), (212, 6001), (255, 6133), (309, 6301), (315, 6337),

Gene: Jerm2\_9 Start: 4320, Stop: 5741, Start Num: 25

Candidate Starts for Jerm2\_9:

(Start: 25 @4320 has 52 MA's), (64, 4599), (73, 4641), (85, 4734), (94, 4836), (132, 4959), (154, 5118), (160, 5145), (212, 5376), (229, 5409), (261, 5505), (277, 5559), (291, 5601), (306, 5652),

Gene: JetBlade\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for JetBlade\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: JewelBug\_13 Start: 5855, Stop: 7066, Start Num: 31

Candidate Starts for JewelBug\_13:

(Start: 31 @5855 has 70 MA's), (Start: 35 @5873 has 1 MA's), (59, 6023), (60, 6038), (66, 6134), (80, 6197), (85, 6281), (86, 6293), (88, 6326), (129, 6527), (155, 6746), (168, 6785), (171, 6791), (191, 6854),

Gene: Jobypre\_26 Start: 24962, Stop: 26434, Start Num: 28

Candidate Starts for Jobypre\_26:

(Start: 28 @24962 has 166 MA's), (Start: 36 @25010 has 4 MA's), (48, 25064), (52, 25094), (53, 25097), (58, 25139), (64, 25214), (85, 25358), (86, 25370), (132, 25598), (141, 25667), (158, 25784), (191, 25916), (193, 25922), (212, 26042), (229, 26075), (233, 26087), (250, 26147), (272, 26225), (314, 26390),

Gene: Jolie1\_040 Start: 38349, Stop: 39818, Start Num: 33

Candidate Starts for Jolie1\_040:

(Start: 31 @38343 has 70 MA's), (Start: 33 @38349 has 1 MA's), (Start: 34 @38355 has 37 MA's), (Start: 35 @38361 has 1 MA's), (58, 38508), (59, 38511), (72, 38655), (79, 38676), (80, 38685), (83, 38715), (85, 38757), (86, 38769), (88, 38808), (95, 38898), (107, 38952), (129, 39051), (132, 39078), (133, 39093), (143, 39198), (146, 39222), (151, 39255), (155, 39285), (159, 39306), (178, 39384), (192, 39432), (211, 39522), (215, 39543), (240, 39597), (244, 39609), (245, 39612), (256, 39654), (281, 39732),

Gene: JoongJeon\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for JoongJeon\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Jordennis\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Jordennis\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Jorgensen\_9 Start: 4357, Stop: 5826, Start Num: 28

Candidate Starts for Jorgensen\_9:

(Start: 28 @4357 has 166 MA's), (Start: 36 @4405 has 4 MA's), (64, 4609), (83, 4711), (84, 4714), (85, 4753), (94, 4885), (132, 5008), (154, 5167), (160, 5194), (180, 5269), (182, 5278), (212, 5461), (229, 5494), (277, 5644), (291, 5686), (306, 5737),

Gene: JoshKayV\_11 Start: 5075, Stop: 6388, Start Num: 26

Candidate Starts for JoshKayV\_11:

(Start: 26 @5075 has 172 MA's), (48, 5177), (58, 5252), (75, 5393), (85, 5486), (86, 5498), (88, 5546), (106, 5618), (121, 5630), (203, 5969), (212, 6002), (237, 6056), (250, 6107), (262, 6152), (265, 6170), (286, 6233),

Gene: Jubie\_26 Start: 24963, Stop: 26435, Start Num: 28

Candidate Starts for Jubie\_26:

(Start: 28 @24963 has 166 MA's), (Start: 36 @25011 has 4 MA's), (48, 25065), (52, 25095), (53, 25098), (58, 25140), (64, 25215), (85, 25359), (86, 25371), (132, 25599), (141, 25668), (158, 25785), (191, 25917), (193, 25923), (212, 26043), (229, 26076), (233, 26088), (250, 26148), (272, 26226), (314, 26391),

Gene: JuliaChild\_11 Start: 5068, Stop: 6501, Start Num: 28

Candidate Starts for JuliaChild\_11:

(Start: 28 @5068 has 166 MA's), (Start: 36 @5116 has 4 MA's), (64, 5320), (83, 5422), (84, 5425), (85, 5464), (132, 5719), (154, 5878), (160, 5905), (212, 6136), (229, 6169), (261, 6265), (277, 6319), (291, 6361), (306, 6412),

Gene: KBG\_10 Start: 5540, Stop: 6934, Start Num: 32

Candidate Starts for KBG\_10:

(21, 5498), (Start: 32 @5540 has 10 MA's), (47, 5618), (64, 5774), (84, 5879), (85, 5918), (132, 6152), (154, 6311), (160, 6338), (212, 6569), (229, 6602), (277, 6752), (291, 6794), (306, 6845),

Gene: KFPoly\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for KFPoly\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: KSSJEB\_8 Start: 4068, Stop: 5501, Start Num: 28

Candidate Starts for KSSJEB\_8:

(Start: 28 @4068 has 166 MA's), (Start: 36 @4116 has 4 MA's), (48, 4170), (64, 4320), (83, 4422), (84, 4425), (85, 4464), (132, 4719), (154, 4878), (160, 4905), (212, 5136), (229, 5169), (261, 5265), (277, 5319), (291, 5361), (306, 5412),

Gene: Kaleb\_47 Start: 40924, Stop: 42423, Start Num: 34

Candidate Starts for Kaleb\_47:

(Start: 31 @40912 has 70 MA's), (Start: 34 @40924 has 37 MA's), (53, 41035), (62, 41131), (72, 41236), (80, 41266), (84, 41311), (85, 41350), (86, 41362), (95, 41488), (99, 41497), (100, 41503), (107, 41521), (111, 41533), (113, 41536), (117, 41548), (119, 41554), (131, 41620), (135, 41671), (143, 41752), (151, 41809), (155, 41839), (159, 41860), (172, 41908), (179, 41938), (186, 41968), (189, 41974), (199, 42040), (215, 42097), (241, 42154), (246, 42172), (247, 42175), (265, 42247), (268, 42256), (273, 42265), (299, 42349),

Gene: Kamy\_8 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for Kamy\_8:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (83, 4294), (85, 4333), (86, 4345), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: Kanely\_10 Start: 5178, Stop: 6611, Start Num: 28

Candidate Starts for Kanely\_10:

(Start: 28 @5178 has 166 MA's), (Start: 36 @5226 has 4 MA's), (64, 5430), (83, 5532), (84, 5535), (85, 5574), (132, 5829), (154, 5988), (160, 6015), (212, 6246), (229, 6279), (277, 6429), (291, 6471), (306, 6522),

Gene: Katalie136\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Katalie136\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (280, 5262), (286, 5280), (304, 5346), (309, 5367),

Gene: KayaCho\_40 Start: 38353, Stop: 39822, Start Num: 33

Candidate Starts for KayaCho\_40:



(14, 38296), (Start: 31 @38347 has 70 MA's), (Start: 33 @38353 has 1 MA's), (Start: 35 @38365 has 1 MA's), (72, 38659), (80, 38689), (83, 38719), (84, 38722), (85, 38761), (86, 38773), (95, 38902), (107, 38956), (115, 38980), (119, 38998), (129, 39055), (132, 39082), (133, 39097), (143, 39202), (159, 39310), (169, 39349), (178, 39388), (192, 39436), (211, 39526), (215, 39547), (240, 39601), (244, 39613), (245, 39616), (256, 39658), (281, 39736),

Gene: Kazan\_13 Start: 5860, Stop: 7071, Start Num: 31

Candidate Starts for Kazan\_13:

(Start: 31 @5860 has 70 MA's), (Start: 35 @5878 has 1 MA's), (59, 6028), (66, 6139), (80, 6202), (85, 6286), (86, 6298), (88, 6331), (129, 6532), (155, 6751), (168, 6790), (171, 6796), (191, 6859),

Gene: Kenmech\_11 Start: 5192, Stop: 6613, Start Num: 25

Candidate Starts for Kenmech\_11:

(16, 5156), (Start: 20 @5165 has 3 MA's), (Start: 25 @5192 has 52 MA's), (64, 5471), (73, 5513), (85, 5606), (94, 5708), (132, 5831), (154, 5990), (160, 6017), (212, 6248), (229, 6281), (261, 6377), (277, 6431), (291, 6473), (306, 6524),

Gene: Kheth\_47 Start: 40842, Stop: 42341, Start Num: 34

Candidate Starts for Kheth\_47:

(Start: 31 @40830 has 70 MA's), (Start: 34 @40842 has 37 MA's), (53, 40953), (62, 41049), (72, 41154), (80, 41184), (84, 41229), (85, 41268), (86, 41280), (95, 41406), (99, 41415), (100, 41421), (107, 41439), (111, 41451), (113, 41454), (117, 41466), (119, 41472), (131, 41538), (143, 41670), (151, 41727), (155, 41757), (159, 41778), (172, 41826), (179, 41856), (186, 41886), (189, 41892), (199, 41958), (215, 42015), (241, 42072), (246, 42090), (247, 42093), (265, 42165), (268, 42174), (273, 42183), (299, 42267),

Gene: Killigrew\_7 Start: 4043, Stop: 5476, Start Num: 28

Candidate Starts for Killigrew\_7:

(Start: 28 @4043 has 166 MA's), (Start: 36 @4091 has 4 MA's), (48, 4145), (64, 4295), (83, 4397), (84, 4400), (85, 4439), (132, 4694), (154, 4853), (160, 4880), (185, 4967), (212, 5111), (229, 5144), (261, 5240), (277, 5294), (291, 5336), (306, 5387),

Gene: KingCyrus\_11 Start: 5054, Stop: 6376, Start Num: 26

Candidate Starts for KingCyrus\_11:

(Start: 26 @5054 has 172 MA's), (45, 5138), (48, 5156), (58, 5231), (69, 5339), (75, 5372), (85, 5465), (86, 5477), (88, 5525), (106, 5597), (121, 5609), (203, 5948), (212, 5981), (237, 6035), (250, 6086), (260, 6128), (263, 6134), (286, 6212), (309, 6302), (311, 6314),

Gene: Kingmustik0402\_8 Start: 3913, Stop: 5415, Start Num: 26

Candidate Starts for Kingmustik0402\_8:

(Start: 26 @3913 has 172 MA's), (53, 4048), (64, 4165), (83, 4285), (85, 4324), (86, 4336), (102, 4474), (127, 4543), (132, 4582), (157, 4765), (158, 4768), (191, 4900), (193, 4906), (212, 5026), (237, 5080), (250, 5131), (265, 5194), (275, 5227),

Gene: Kingsolomon\_26 Start: 24962, Stop: 26434, Start Num: 28

Candidate Starts for Kingsolomon\_26:

(Start: 28 @24962 has 166 MA's), (Start: 36 @25010 has 4 MA's), (48, 25064), (52, 25094), (53, 25097), (58, 25139), (64, 25214), (85, 25358), (86, 25370), (132, 25598), (141, 25667), (158, 25784), (191, 25916), (193, 25922), (212, 26042), (229, 26075), (233, 26087), (250, 26147), (272, 26225), (314, 26390),

Gene: Kipper29\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Kipper29\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (58, 6019), (59, 6022), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (164, 6772), (168, 6784), (171, 6790), (191, 6853), (245, 7036),

Gene: KirDoubleO7\_24 Start: 24954, Stop: 26426, Start Num: 28

Candidate Starts for KirDoubleO7\_24:

(Start: 28 @24954 has 166 MA's), (Start: 36 @25002 has 4 MA's), (48, 25056), (52, 25086), (53, 25089), (64, 25206), (85, 25350), (86, 25362), (132, 25590), (141, 25659), (158, 25776), (191, 25908), (192, 25911), (193, 25914), (212, 26034), (229, 26067), (233, 26079), (250, 26139), (272, 26217), (314, 26382),

Gene: KittenMittens\_8 Start: 2285, Stop: 3781, Start Num: 31

Candidate Starts for KittenMittens\_8:

(Start: 31 @2285 has 70 MA's), (Start: 35 @2303 has 1 MA's), (59, 2453), (66, 2564), (72, 2597), (79, 2618), (85, 2711), (86, 2723), (88, 2756), (124, 2963), (148, 3155), (150, 3170), (153, 3197), (174, 3281), (175, 3287), (199, 3407), (207, 3431), (210, 3443), (219, 3470), (252, 3560), (256, 3575), (274, 3632), (297, 3713),

Gene: Knocker\_48 Start: 42235, Stop: 43773, Start Num: 31

Candidate Starts for Knocker\_48:

(Start: 31 @42235 has 70 MA's), (Start: 34 @42247 has 37 MA's), (Start: 35 @42253 has 1 MA's), (47, 42319), (53, 42358), (56, 42379), (64, 42487), (68, 42523), (72, 42559), (80, 42589), (83, 42619), (85, 42661), (86, 42673), (88, 42715), (107, 42859), (119, 42907), (125, 42946), (132, 42988), (133, 43003), (152, 43174), (159, 43213), (163, 43231), (177, 43279), (181, 43297), (214, 43456), (220, 43465), (249, 43546), (251, 43555), (254, 43570), (259, 43579), (260, 43588), (264, 43600), (289, 43678),

Gene: Koan\_7 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Koan\_7:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Koko\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Koko\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Kolhan\_47 Start: 40797, Stop: 42296, Start Num: 34

Candidate Starts for Kolhan\_47:

(Start: 31 @40785 has 70 MA's), (Start: 34 @40797 has 37 MA's), (53, 40908), (62, 41004), (72, 41109), (80, 41139), (84, 41184), (85, 41223), (86, 41235), (95, 41361), (99, 41370), (100, 41376), (107, 41394), (111, 41406), (113, 41409), (117, 41421), (119, 41427), (131, 41493), (143, 41625), (151, 41682), (155, 41712), (159, 41733), (172, 41781), (179, 41811), (186, 41841), (189, 41847), (199, 41913), (215, 41970), (241, 42027), (246, 42045), (247, 42048), (265, 42120), (268, 42129), (273, 42138), (299, 42222),

Gene: Koreni\_7 Start: 3570, Stop: 5072, Start Num: 26

Candidate Starts for Koreni\_7:

(Start: 26 @3570 has 172 MA's), (53, 3705), (64, 3822), (83, 3942), (85, 3981), (86, 3993), (102, 4131), (127, 4200), (132, 4239), (157, 4422), (158, 4425), (191, 4557), (193, 4563), (212, 4683), (237, 4737), (250, 4788), (265, 4851), (275, 4884),

Gene: Kratark\_8 Start: 3925, Stop: 5427, Start Num: 26

Candidate Starts for Kratark\_8:

(Start: 26 @3925 has 172 MA's), (53, 4060), (64, 4177), (83, 4297), (85, 4336), (86, 4348), (127, 4555), (132, 4594), (157, 4777), (158, 4780), (191, 4912), (193, 4918), (212, 5038), (237, 5092), (250, 5143), (265, 5206), (275, 5239),

Gene: Kremtemulon\_8 Start: 4029, Stop: 5504, Start Num: 26

Candidate Starts for Kremtemulon\_8:

(13, 3966), (Start: 26 @4029 has 172 MA's), (64, 4281), (85, 4440), (86, 4452), (132, 4701), (140, 4770), (157, 4884), (158, 4887), (191, 5019), (204, 5112), (212, 5142), (224, 5166), (238, 5205), (265, 5304), (300, 5397),

Gene: Krypton555\_26 Start: 24866, Stop: 26338, Start Num: 28

Candidate Starts for Krypton555\_26:

(Start: 28 @24866 has 166 MA's), (Start: 36 @24914 has 4 MA's), (48, 24968), (53, 25001), (64, 25118), (82, 25202), (85, 25262), (86, 25274), (88, 25304), (132, 25502), (158, 25688), (191, 25820), (192, 25823), (193, 25826), (212, 25946), (229, 25979), (250, 26051), (272, 26129), (314, 26294),

Gene: Kugel\_10 Start: 4656, Stop: 6068, Start Num: 28

Candidate Starts for Kugel\_10:

(Start: 28 @4656 has 166 MA's), (Start: 36 @4704 has 4 MA's), (64, 4908), (80, 4980), (84, 5013), (85, 5052), (132, 5286), (154, 5445), (160, 5472), (212, 5703), (229, 5736), (277, 5886), (291, 5928), (306, 5979),

Gene: KyMonks1A\_11 Start: 4912, Stop: 6345, Start Num: 28

Candidate Starts for KyMonks1A\_11:

(Start: 28 @4912 has 166 MA's), (Start: 36 @4960 has 4 MA's), (64, 5164), (80, 5236), (85, 5308), (132, 5563), (154, 5722), (160, 5749), (212, 5980), (229, 6013), (261, 6109), (277, 6163), (291, 6205), (306, 6256),

Gene: Kyee\_8 Start: 3925, Stop: 5424, Start Num: 26

Candidate Starts for Kyee\_8:

(Start: 26 @3925 has 172 MA's), (53, 4060), (64, 4177), (83, 4297), (85, 4336), (86, 4348), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: Kykar\_7 Start: 4132, Stop: 5565, Start Num: 28

Candidate Starts for Kykar\_7:

(Start: 28 @4132 has 166 MA's), (Start: 36 @4180 has 4 MA's), (64, 4384), (83, 4486), (84, 4489), (85, 4528), (132, 4783), (154, 4942), (160, 4969), (212, 5200), (229, 5233), (277, 5383), (291, 5425), (306, 5476),

Gene: LHTSCC\_8 Start: 3928, Stop: 5409, Start Num: 26

Candidate Starts for LHTSCC\_8:

(Start: 26 @3928 has 172 MA's), (Start: 42 @4006 has 2 MA's), (64, 4186), (85, 4345), (86, 4357), (132, 4606), (140, 4675), (157, 4789), (158, 4792), (176, 4861), (191, 4924), (212, 5047), (224, 5071), (265, 5209), (290, 5281), (300, 5302), (305, 5320),

Gene: Lamina13\_9 Start: 4188, Stop: 5621, Start Num: 28

Candidate Starts for Lamina13\_9:

(Start: 28 @4188 has 166 MA's), (Start: 36 @4236 has 4 MA's), (64, 4440), (83, 4542), (84, 4545), (85, 4584), (132, 4839), (154, 4998), (160, 5025), (212, 5256), (229, 5289), (261, 5385), (277, 5439), (291,

5481), (306, 5532),

Gene: Landor\_10 Start: 6212, Stop: 7720, Start Num: 26

Candidate Starts for Landor\_10:

(13, 6149), (Start: 26 @6212 has 172 MA's), (53, 6347), (83, 6584), (85, 6623), (86, 6635), (127, 6851), (132, 6890), (140, 6959), (157, 7073), (158, 7076), (191, 7208), (212, 7334), (233, 7379), (237, 7388), (250, 7439), (260, 7481), (286, 7565), (309, 7655),

Gene: LappelDuVide\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for LappelDuVide\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Larenn\_10 Start: 4779, Stop: 6293, Start Num: 31

Candidate Starts for Larenn\_10:

(Start: 31 @4779 has 70 MA's), (Start: 35 @4797 has 1 MA's), (39, 4824), (59, 4947), (66, 5058), (72, 5103), (85, 5217), (86, 5229), (88, 5262), (98, 5361), (112, 5418), (124, 5469), (174, 5787), (199, 5913), (201, 5922), (209, 5946), (218, 5979), (228, 5994), (259, 6093), (260, 6102), (295, 6222),

Gene: Lars\_47 Start: 40914, Stop: 42413, Start Num: 34

Candidate Starts for Lars\_47:

(Start: 31 @40902 has 70 MA's), (Start: 34 @40914 has 37 MA's), (53, 41025), (62, 41121), (72, 41226), (80, 41256), (84, 41301), (85, 41340), (86, 41352), (95, 41478), (99, 41487), (100, 41493), (107, 41511), (111, 41523), (113, 41526), (117, 41538), (119, 41544), (131, 41610), (143, 41742), (151, 41799), (155, 41829), (159, 41850), (172, 41898), (179, 41928), (186, 41958), (189, 41964), (199, 42030), (215, 42087), (241, 42144), (246, 42162), (247, 42165), (265, 42237), (268, 42246), (273, 42255), (299, 42339),

Gene: Laurie\_46 Start: 40313, Stop: 41812, Start Num: 34

Candidate Starts for Laurie\_46:

(Start: 31 @40301 has 70 MA's), (Start: 34 @40313 has 37 MA's), (53, 40424), (62, 40520), (72, 40625), (80, 40655), (84, 40700), (85, 40739), (86, 40751), (95, 40877), (99, 40886), (100, 40892), (107, 40910), (111, 40922), (113, 40925), (117, 40937), (119, 40943), (131, 41009), (143, 41141), (151, 41198), (155, 41228), (159, 41249), (172, 41297), (179, 41327), (186, 41357), (189, 41363), (199, 41429), (215, 41486), (241, 41543), (246, 41561), (247, 41564), (265, 41636), (268, 41645), (273, 41654), (299, 41738),

Gene: Lemur\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Lemur\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: LeoAvram\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for LeoAvram\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Leogania\_11 Start: 6625, Stop: 8109, Start Num: 26

Candidate Starts for Leogania\_11:

(Start: 26 @6625 has 172 MA's), (47, 6727), (64, 6883), (74, 6943), (85, 7024), (86, 7036), (123, 7228), (132, 7279), (155, 7489), (159, 7510), (177, 7576), (194, 7627), (200, 7699), (204, 7711), (205, 7714), (212, 7747), (224, 7771), (235, 7795), (265, 7909), (268, 7918), (280, 7954), (305, 8020),

Gene: Lephleur\_47 Start: 40807, Stop: 42306, Start Num: 34

Candidate Starts for Lephleur\_47:

(Start: 31 @40795 has 70 MA's), (Start: 34 @40807 has 37 MA's), (53, 40918), (62, 41014), (72, 41119), (80, 41149), (84, 41194), (85, 41233), (86, 41245), (95, 41371), (99, 41380), (100, 41386), (107, 41404), (111, 41416), (113, 41419), (117, 41431), (119, 41437), (131, 41503), (143, 41635), (151, 41692), (155, 41722), (159, 41743), (172, 41791), (179, 41821), (186, 41851), (189, 41857), (199, 41923), (215, 41980), (241, 42037), (246, 42055), (247, 42058), (265, 42130), (268, 42139), (273, 42148), (299, 42232),

Gene: Lesedi\_8 Start: 4347, Stop: 5780, Start Num: 28

Candidate Starts for Lesedi\_8:

(Start: 28 @4347 has 166 MA's), (Start: 36 @4395 has 4 MA's), (64, 4599), (83, 4701), (84, 4704), (85, 4743), (132, 4998), (154, 5157), (160, 5184), (212, 5415), (229, 5448), (261, 5544), (277, 5598), (291, 5640), (306, 5691),

Gene: Levia\_7 Start: 4066, Stop: 5499, Start Num: 28

Candidate Starts for Levia\_7:

(Start: 28 @4066 has 166 MA's), (Start: 36 @4114 has 4 MA's), (64, 4318), (84, 4423), (85, 4462), (132, 4717), (154, 4876), (160, 4903), (212, 5134), (229, 5167), (277, 5317), (291, 5359), (306, 5410),

Gene: Leviathan\_11 Start: 5109, Stop: 6431, Start Num: 26

Candidate Starts for Leviathan\_11:

(Start: 26 @5109 has 172 MA's), (45, 5193), (48, 5211), (58, 5286), (75, 5427), (85, 5520), (86, 5532), (88, 5580), (121, 5676), (136, 5748), (145, 5796), (203, 6015), (212, 6048), (237, 6102), (250, 6153), (262, 6198), (265, 6216), (286, 6279), (309, 6366),

Gene: Licorice\_11 Start: 5216, Stop: 6637, Start Num: 25

Candidate Starts for Licorice\_11:

(Start: 25 @5216 has 52 MA's), (64, 5495), (73, 5537), (85, 5630), (94, 5732), (132, 5855), (154, 6014), (160, 6041), (185, 6128), (212, 6272), (229, 6305), (261, 6401), (277, 6455), (291, 6497), (306, 6548),

Gene: LilBib\_9 Start: 4956, Stop: 6371, Start Num: 25

Candidate Starts for LilBib\_9:

(16, 4920), (Start: 20 @4929 has 3 MA's), (Start: 25 @4956 has 52 MA's), (64, 5235), (73, 5277), (85, 5370), (94, 5472), (132, 5595), (154, 5754), (160, 5781), (212, 6012), (229, 6045), (261, 6141), (277, 6195), (291, 6237), (306, 6288),

Gene: LilMcDreamy\_44 Start: 40112, Stop: 41641, Start Num: 29

Candidate Starts for LilMcDreamy\_44:

(Start: 29 @40112 has 2 MA's), (Start: 31 @40118 has 70 MA's), (Start: 34 @40130 has 37 MA's), (Start: 35 @40136 has 1 MA's), (47, 40202), (72, 40430), (80, 40460), (83, 40490), (85, 40532), (86, 40544), (91, 40649), (107, 40730), (119, 40769), (132, 40850), (133, 40865), (151, 41030), (155, 41060), (159, 41081), (160, 41084), (172, 41129), (178, 41159), (187, 41192), (215, 41345), (223, 41357), (244, 41411), (245, 41414), (270, 41507),

Gene: LilSmirk\_47 Start: 40801, Stop: 42300, Start Num: 34

Candidate Starts for LilSmirk\_47:

(Start: 31 @40789 has 70 MA's), (Start: 34 @40801 has 37 MA's), (53, 40912), (62, 41008), (72, 41113), (80, 41143), (84, 41188), (85, 41227), (86, 41239), (95, 41365), (99, 41374), (100, 41380),

(107, 41398), (111, 41410), (113, 41413), (117, 41425), (119, 41431), (131, 41497), (143, 41629), (151, 41686), (155, 41716), (159, 41737), (172, 41785), (179, 41815), (186, 41845), (189, 41851), (199, 41917), (215, 41974), (241, 42031), (246, 42049), (247, 42052), (265, 42124), (268, 42133), (273, 42142), (299, 42226),

Gene: LilTurb\_11 Start: 5121, Stop: 6434, Start Num: 26

Candidate Starts for LilTurb\_11:

(Start: 26 @5121 has 172 MA's), (45, 5205), (48, 5223), (58, 5298), (75, 5439), (85, 5532), (86, 5544), (88, 5592), (120, 5676), (121, 5688), (136, 5760), (145, 5808), (203, 6027), (212, 6060), (255, 6192), (309, 6360), (315, 6396),

Gene: Lilbunny\_13 Start: 5832, Stop: 7046, Start Num: 31

Candidate Starts for Lilbunny\_13:

(Start: 31 @5832 has 70 MA's), (Start: 35 @5850 has 1 MA's), (59, 6000), (66, 6111), (72, 6144), (80, 6174), (85, 6258), (86, 6270), (88, 6303), (92, 6375), (99, 6393), (120, 6459), (129, 6507), (155, 6726), (164, 6753), (168, 6765), (171, 6771), (191, 6834), (245, 7017),

Gene: LittleB\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for LittleB\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: LittleGuy\_8 Start: 3918, Stop: 5402, Start Num: 26

Candidate Starts for LittleGuy\_8:

(Start: 26 @3918 has 172 MA's), (Start: 42 @3996 has 2 MA's), (53, 4053), (64, 4170), (83, 4290), (85, 4329), (86, 4341), (132, 4584), (140, 4653), (155, 4755), (157, 4767), (158, 4770), (170, 4818), (191, 4902), (204, 4995), (212, 5028), (256, 5160), (264, 5190), (272, 5217), (280, 5244), (309, 5328),

Gene: LiyuLake\_26 Start: 24924, Stop: 26396, Start Num: 28

Candidate Starts for LiyuLake\_26:

(Start: 28 @24924 has 166 MA's), (Start: 36 @24972 has 4 MA's), (48, 25026), (52, 25056), (53, 25059), (64, 25176), (85, 25320), (86, 25332), (132, 25560), (141, 25629), (154, 25728), (158, 25746), (191, 25878), (192, 25881), (193, 25884), (212, 26004), (229, 26037), (233, 26049), (250, 26109), (272, 26187), (314, 26352),

Gene: LizLemon\_47 Start: 40923, Stop: 42422, Start Num: 34

Candidate Starts for LizLemon\_47:

(Start: 31 @40911 has 70 MA's), (Start: 34 @40923 has 37 MA's), (53, 41034), (62, 41130), (72, 41235), (80, 41265), (82, 41277), (84, 41310), (85, 41349), (86, 41361), (95, 41487), (99, 41496), (100, 41502), (107, 41520), (111, 41532), (113, 41535), (117, 41547), (119, 41553), (131, 41619), (143, 41751), (151, 41808), (155, 41838), (159, 41859), (172, 41907), (179, 41937), (186, 41967), (189, 41973), (199, 42039), (215, 42096), (241, 42153), (246, 42171), (247, 42174), (265, 42246), (268, 42255), (273, 42264), (299, 42348),

Gene: LochMonster\_8 Start: 3926, Stop: 5407, Start Num: 26

Candidate Starts for LochMonster\_8:

(Start: 26 @3926 has 172 MA's), (Start: 42 @4004 has 2 MA's), (64, 4184), (85, 4343), (86, 4355), (132, 4604), (140, 4673), (155, 4775), (157, 4787), (158, 4790), (176, 4859), (191, 4922), (200, 5003), (212, 5045), (224, 5069), (265, 5207), (268, 5216), (290, 5279), (300, 5300), (305, 5318),

Gene: Lockley\_9 Start: 4538, Stop: 5959, Start Num: 25

Candidate Starts for Lockley\_9:

(Start: 25 @4538 has 52 MA's), (64, 4817), (73, 4859), (85, 4952), (94, 5054), (132, 5177), (154, 5336), (160, 5363), (185, 5450), (212, 5594), (229, 5627), (277, 5777), (291, 5819), (306, 5870),

Gene: Lolk\_12 Start: 6417, Stop: 7715, Start Num: 26

Candidate Starts for Lolk\_12:

(Start: 26 @6417 has 172 MA's), (48, 6519), (69, 6702), (74, 6729), (85, 6828), (86, 6840), (88, 6888), (121, 6981), (126, 6987), (136, 7053), (203, 7320), (212, 7353), (225, 7377), (265, 7515), (268, 7524), (309, 7644),

Gene: Lolly9\_26 Start: 24741, Stop: 26216, Start Num: 28

Candidate Starts for Lolly9\_26:

(Start: 28 @24741 has 166 MA's), (Start: 36 @24789 has 4 MA's), (48, 24843), (53, 24876), (64, 24993), (81, 25074), (85, 25137), (86, 25149), (88, 25179), (132, 25377), (158, 25563), (191, 25695), (192, 25698), (193, 25701), (212, 25821), (229, 25854), (250, 25926), (259, 25959), (262, 25971), (283, 26043), (314, 26172),

Gene: Lopton\_10 Start: 4943, Stop: 6364, Start Num: 25

Candidate Starts for Lopton\_10:

(Start: 25 @4943 has 52 MA's), (64, 5222), (73, 5264), (85, 5357), (94, 5459), (132, 5582), (154, 5741), (160, 5768), (212, 5999), (229, 6032), (261, 6128), (277, 6182), (291, 6224), (306, 6275),

Gene: Lorenzo\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Lorenzo\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Lucky2013\_47 Start: 37834, Stop: 39222, Start Num: 25

Candidate Starts for Lucky2013\_47:

(Start: 25 @37834 has 52 MA's), (Start: 36 @37885 has 4 MA's), (47, 37933), (62, 38056), (64, 38089), (70, 38122), (84, 38194), (85, 38233), (121, 38431), (123, 38443), (131, 38479), (132, 38494), (155, 38656), (160, 38680), (180, 38767), (212, 38947), (222, 38968), (271, 39100), (272, 39103), (277, 39118), (279, 39121), (301, 39187),

Gene: Lucyedi\_11 Start: 5814, Stop: 7079, Start Num: 31

Candidate Starts for Lucyedi\_11:

(Start: 31 @5814 has 70 MA's), (Start: 35 @5832 has 1 MA's), (57, 5970), (59, 5982), (66, 6093), (72, 6126), (85, 6240), (86, 6252), (88, 6285), (95, 6369), (97, 6372), (99, 6378), (101, 6387), (120, 6444), (129, 6492), (155, 6711), (161, 6738), (166, 6762), (173, 6786), (196, 6879), (208, 6945), (221, 6984), (225, 6990),

Gene: Lumos\_26 Start: 24959, Stop: 26431, Start Num: 28

Candidate Starts for Lumos\_26:

(Start: 28 @24959 has 166 MA's), (Start: 36 @25007 has 4 MA's), (48, 25061), (52, 25091), (53, 25094), (58, 25136), (64, 25211), (85, 25355), (86, 25367), (132, 25595), (141, 25664), (158, 25781), (191, 25913), (193, 25919), (212, 26039), (229, 26072), (233, 26084), (250, 26144), (272, 26222), (314, 26387),

Gene: LunarLander\_9 Start: 4335, Stop: 5747, Start Num: 28

Candidate Starts for LunarLander\_9:

(Start: 28 @4335 has 166 MA's), (Start: 36 @4383 has 4 MA's), (64, 4587), (80, 4659), (84, 4692), (85, 4731), (132, 4965), (154, 5124), (160, 5151), (185, 5238), (212, 5382), (229, 5415), (261, 5511), (277, 5565), (291, 5607), (306, 5658),

Gene: Lunsford\_9 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Lunsford\_9:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: MPlant7149\_8 Start: 4176, Stop: 5597, Start Num: 25

Candidate Starts for MPlant7149\_8:

(Start: 25 @4176 has 52 MA's), (64, 4455), (73, 4497), (85, 4590), (94, 4692), (132, 4815), (154, 4974), (160, 5001), (212, 5232), (229, 5265), (261, 5361), (277, 5415), (291, 5457), (306, 5508),

Gene: Magnar\_9 Start: 4318, Stop: 5751, Start Num: 28

Candidate Starts for Magnar\_9:

(Start: 28 @4318 has 166 MA's), (Start: 36 @4366 has 4 MA's), (64, 4570), (83, 4672), (84, 4675), (85, 4714), (132, 4969), (154, 5128), (160, 5155), (212, 5386), (229, 5419), (277, 5569), (291, 5611), (306, 5662),

Gene: Magnito\_8 Start: 4063, Stop: 5496, Start Num: 28

Candidate Starts for Magnito\_8:

(Start: 28 @4063 has 166 MA's), (Start: 36 @4111 has 4 MA's), (64, 4315), (83, 4417), (84, 4420), (85, 4459), (132, 4714), (154, 4873), (160, 4900), (212, 5131), (229, 5164), (277, 5314), (291, 5356), (306, 5407),

Gene: Makemake\_9 Start: 4773, Stop: 6206, Start Num: 28

Candidate Starts for Makemake\_9:

(Start: 28 @4773 has 166 MA's), (Start: 36 @4821 has 4 MA's), (64, 5025), (83, 5127), (84, 5130), (85, 5169), (132, 5424), (154, 5583), (160, 5610), (185, 5697), (212, 5841), (229, 5874), (277, 6024), (291, 6066), (306, 6117),

Gene: Malec\_10 Start: 4784, Stop: 6298, Start Num: 31

Candidate Starts for Malec\_10:

(Start: 31 @4784 has 70 MA's), (Start: 35 @4802 has 1 MA's), (39, 4829), (59, 4952), (66, 5063), (72, 5108), (85, 5222), (86, 5234), (88, 5267), (98, 5366), (112, 5423), (124, 5474), (174, 5792), (199, 5918), (201, 5927), (209, 5951), (218, 5984), (228, 5999), (259, 6098), (260, 6107), (295, 6227),

Gene: Manatee\_9 Start: 4272, Stop: 5693, Start Num: 25

Candidate Starts for Manatee\_9:

(Start: 25 @4272 has 52 MA's), (64, 4551), (73, 4593), (85, 4686), (94, 4788), (132, 4911), (154, 5070), (160, 5097), (212, 5328), (229, 5361), (261, 5457), (277, 5511), (291, 5553), (306, 5604),

Gene: Marcell\_9 Start: 4523, Stop: 5956, Start Num: 28

Candidate Starts for Marcell\_9:

(Start: 28 @4523 has 166 MA's), (Start: 36 @4571 has 4 MA's), (64, 4775), (83, 4877), (84, 4880), (85, 4919), (132, 5174), (154, 5333), (160, 5360), (212, 5591), (229, 5624), (277, 5774), (291, 5816), (302, 5852), (306, 5867),

Gene: Marchy\_8 Start: 4150, Stop: 5583, Start Num: 28

Candidate Starts for Marchy\_8:

(Start: 28 @4150 has 166 MA's), (Start: 36 @4198 has 4 MA's), (64, 4402), (83, 4504), (84, 4507), (85, 4546), (132, 4801), (154, 4960), (160, 4987), (212, 5218), (229, 5251), (261, 5347), (277, 5401), (291, 5443), (306, 5494),



Gene: Marco3\_9 Start: 4816, Stop: 6228, Start Num: 28

Candidate Starts for Marco3\_9:

(Start: 28 @4816 has 166 MA's), (Start: 36 @4864 has 4 MA's), (64, 5068), (80, 5140), (84, 5173), (85, 5212), (132, 5446), (154, 5605), (160, 5632), (212, 5863), (229, 5896), (261, 5992), (277, 6046), (291, 6088), (302, 6124), (306, 6139),

Gene: Marge\_9 Start: 4544, Stop: 5977, Start Num: 28

Candidate Starts for Marge\_9:

(Start: 28 @4544 has 166 MA's), (Start: 36 @4592 has 4 MA's), (64, 4796), (83, 4898), (84, 4901), (85, 4940), (132, 5195), (154, 5354), (160, 5381), (212, 5612), (229, 5645), (261, 5741), (277, 5795), (291, 5837), (306, 5888),

Gene: Marleymoo\_49 Start: 40723, Stop: 42099, Start Num: 25

Candidate Starts for Marleymoo\_49:

(Start: 25 @40723 has 52 MA's), (Start: 36 @40774 has 4 MA's), (Start: 42 @40801 has 2 MA's), (47, 40822), (64, 40978), (85, 41122), (94, 41257), (122, 41326), (132, 41380), (159, 41590), (165, 41617), (212, 41824), (222, 41845), (271, 41977), (277, 41995), (279, 41998), (290, 42025),

Gene: Maroc7\_8 Start: 4336, Stop: 5769, Start Num: 28

Candidate Starts for Maroc7\_8:

(Start: 28 @4336 has 166 MA's), (Start: 36 @4384 has 4 MA's), (64, 4588), (83, 4690), (84, 4693), (85, 4732), (132, 4987), (154, 5146), (160, 5173), (212, 5404), (229, 5437), (261, 5533), (277, 5587), (291, 5629), (306, 5680),

Gene: Marsha\_9 Start: 4792, Stop: 6213, Start Num: 25

Candidate Starts for Marsha\_9:

(Start: 25 @4792 has 52 MA's), (64, 5071), (73, 5113), (85, 5206), (94, 5308), (132, 5431), (154, 5590), (160, 5617), (185, 5704), (212, 5848), (229, 5881), (261, 5977), (277, 6031), (291, 6073), (306, 6124),

Gene: MaryBeth\_9 Start: 4770, Stop: 6191, Start Num: 25

Candidate Starts for MaryBeth\_9:

(Start: 25 @4770 has 52 MA's), (64, 5049), (73, 5091), (85, 5184), (94, 5286), (132, 5409), (154, 5568), (160, 5595), (212, 5826), (229, 5859), (261, 5955), (277, 6009), (291, 6051), (306, 6102),

Gene: MasterPo\_47 Start: 40810, Stop: 42309, Start Num: 34

Candidate Starts for MasterPo\_47:

(Start: 31 @40798 has 70 MA's), (Start: 34 @40810 has 37 MA's), (53, 40921), (62, 41017), (72, 41122), (80, 41152), (84, 41197), (85, 41236), (86, 41248), (95, 41374), (99, 41383), (100, 41389), (107, 41407), (111, 41419), (113, 41422), (117, 41434), (119, 41440), (131, 41506), (143, 41638), (151, 41695), (155, 41725), (159, 41746), (172, 41794), (179, 41824), (186, 41854), (189, 41860), (199, 41926), (215, 41983), (241, 42040), (246, 42058), (247, 42061), (265, 42133), (268, 42142), (273, 42151), (299, 42235),

Gene: Maverick\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Maverick\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Maxo\_8 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for Maxo\_8:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (83, 4294), (85, 4333), (86, 4345), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140),

(265, 5203), (275, 5236),

Gene: Mayonnaise\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Mayonnaise\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Mazhar510\_8 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for Mazhar510\_8:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (83, 4294), (85, 4333), (86, 4345), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: McFly\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for McFly\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (58, 6019), (59, 6022), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (164, 6772), (168, 6784), (171, 6790), (191, 6853), (245, 7036),

Gene: McGuire\_9 Start: 4305, Stop: 5738, Start Num: 28

Candidate Starts for McGuire\_9:

(Start: 28 @4305 has 166 MA's), (Start: 36 @4353 has 4 MA's), (48, 4407), (64, 4557), (83, 4659), (84, 4662), (85, 4701), (132, 4956), (154, 5115), (160, 5142), (185, 5229), (212, 5373), (229, 5406), (261, 5502), (277, 5556), (291, 5598), (306, 5649),

Gene: McSinger\_10 Start: 4721, Stop: 6154, Start Num: 28

Candidate Starts for McSinger\_10:

(Start: 28 @4721 has 166 MA's), (Start: 36 @4769 has 4 MA's), (64, 4973), (83, 5075), (84, 5078), (85, 5117), (132, 5372), (154, 5531), (160, 5558), (185, 5645), (212, 5789), (229, 5822), (261, 5918), (277, 5972), (291, 6014), (302, 6050), (306, 6065),

Gene: Medusa\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Medusa\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: MeeZee\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for MeeZee\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Melvin\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Melvin\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: MetalQZJ\_9 Start: 4770, Stop: 6191, Start Num: 25

Candidate Starts for MetalQZJ\_9:

(Start: 25 @4770 has 52 MA's), (64, 5049), (73, 5091), (85, 5184), (94, 5286), (132, 5409), (154, 5568), (160, 5595), (212, 5826), (229, 5859), (261, 5955), (277, 6009), (291, 6051), (306, 6102),

Gene: MiaZeal\_47 Start: 37509, Stop: 38897, Start Num: 25

Candidate Starts for MiaZeal\_47:

(Start: 25 @37509 has 52 MA's), (Start: 36 @37560 has 4 MA's), (47, 37608), (62, 37731), (64, 37764), (70, 37797), (84, 37869), (85, 37908), (121, 38106), (123, 38118), (131, 38154), (132, 38169), (155, 38331), (160, 38355), (180, 38442), (212, 38622), (222, 38643), (271, 38775), (272, 38778), (277, 38793), (279, 38796), (301, 38862),

Gene: Michley\_9 Start: 4506, Stop: 5939, Start Num: 28

Candidate Starts for Michley\_9:

(Start: 28 @4506 has 166 MA's), (Start: 36 @4554 has 4 MA's), (64, 4758), (83, 4860), (84, 4863), (85, 4902), (132, 5157), (154, 5316), (160, 5343), (212, 5574), (229, 5607), (261, 5703), (277, 5757), (291, 5799), (302, 5835), (306, 5850),

Gene: Miko\_12 Start: 6395, Stop: 7684, Start Num: 26

Candidate Starts for Miko\_12:

(Start: 26 @6395 has 172 MA's), (48, 6497), (69, 6680), (74, 6707), (85, 6806), (86, 6818), (88, 6866), (120, 6938), (121, 6950), (130, 6971), (136, 7022), (203, 7289), (212, 7322), (225, 7346), (265, 7484), (268, 7493), (309, 7613),

Gene: Millski\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Millski\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: MiniLon\_26 Start: 24741, Stop: 26216, Start Num: 28

Candidate Starts for MiniLon\_26:

(Start: 28 @24741 has 166 MA's), (Start: 36 @24789 has 4 MA's), (48, 24843), (53, 24876), (64, 24993), (81, 25074), (85, 25137), (86, 25149), (88, 25179), (132, 25377), (158, 25563), (191, 25695), (192, 25698), (193, 25701), (212, 25821), (229, 25854), (250, 25926), (259, 25959), (262, 25971), (283, 26043), (314, 26172),

Gene: MiniMac\_26 Start: 24742, Stop: 26217, Start Num: 28

Candidate Starts for MiniMac\_26:

(Start: 28 @24742 has 166 MA's), (Start: 36 @24790 has 4 MA's), (48, 24844), (53, 24877), (64, 24994), (81, 25075), (85, 25138), (86, 25150), (88, 25180), (132, 25378), (158, 25564), (191, 25696), (192, 25699), (193, 25702), (212, 25822), (229, 25855), (250, 25927), (259, 25960), (262, 25972), (283, 26044), (314, 26173),

Gene: Miramae\_8 Start: 3924, Stop: 5396, Start Num: 26

Candidate Starts for Miramae\_8:

(Start: 26 @3924 has 172 MA's), (64, 4176), (85, 4335), (86, 4347), (132, 4593), (140, 4662), (155, 4764), (157, 4776), (158, 4779), (191, 4911), (200, 4992), (204, 5004), (212, 5034), (224, 5058), (238, 5097), (265, 5196), (280, 5241), (287, 5262),

Gene: Mkhuseli\_8 Start: 4165, Stop: 5598, Start Num: 28

Candidate Starts for Mkhuseli\_8:

(Start: 28 @4165 has 166 MA's), (Start: 36 @4213 has 4 MA's), (64, 4417), (83, 4519), (84, 4522), (85, 4561), (132, 4816), (154, 4975), (160, 5002), (212, 5233), (229, 5266), (277, 5416), (291, 5458), (306, 5509),

Gene: Molly\_10 Start: 4366, Stop: 5799, Start Num: 28

Candidate Starts for Molly\_10:

(Start: 28 @4366 has 166 MA's), (Start: 36 @4414 has 4 MA's), (48, 4468), (64, 4618), (83, 4720), (84, 4723), (85, 4762), (132, 5017), (154, 5176), (160, 5203), (212, 5434), (229, 5467), (261, 5563), (277, 5617), (291, 5659), (306, 5710),

Gene: Monet\_10 Start: 5046, Stop: 6494, Start Num: 20

Candidate Starts for Monet\_10:

(16, 5037), (Start: 20 @5046 has 3 MA's), (Start: 25 @5073 has 52 MA's), (64, 5352), (73, 5394), (85, 5487), (94, 5589), (132, 5712), (154, 5871), (160, 5898), (212, 6129), (229, 6162), (261, 6258), (277, 6312), (291, 6354), (306, 6405),

Gene: MontyDev\_35 Start: 32241, Stop: 33710, Start Num: 34

Candidate Starts for MontyDev\_35:

(Start: 34 @32241 has 37 MA's), (41, 32283), (51, 32346), (62, 32448), (82, 32595), (83, 32613), (85, 32655), (86, 32667), (90, 32715), (109, 32811), (114, 32823), (116, 32832), (122, 32865), (132, 32919), (137, 32964), (155, 33123), (159, 33144), (160, 33147), (172, 33192), (178, 33222), (197, 33291), (198, 33306), (200, 33330), (212, 33375), (223, 33399), (253, 33486), (260, 33516), (270, 33549), (278, 33579), (293, 33621),

Gene: Moose\_8 Start: 4599, Stop: 6032, Start Num: 28

Candidate Starts for Moose\_8:

(Start: 28 @4599 has 166 MA's), (Start: 36 @4647 has 4 MA's), (64, 4851), (83, 4953), (84, 4956), (85, 4995), (94, 5127), (132, 5250), (154, 5409), (160, 5436), (212, 5667), (229, 5700), (277, 5850), (291, 5892), (306, 5943),

Gene: Moostard\_26 Start: 24965, Stop: 26437, Start Num: 28

Candidate Starts for Moostard\_26:

(Start: 28 @24965 has 166 MA's), (Start: 36 @25013 has 4 MA's), (48, 25067), (52, 25097), (53, 25100), (58, 25142), (64, 25217), (85, 25361), (86, 25373), (132, 25601), (141, 25670), (158, 25787), (191, 25919), (193, 25925), (212, 26045), (229, 26078), (233, 26090), (250, 26150), (272, 26228), (314, 26393),

Gene: Morpher26\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Morpher26\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (286, 5280), (309, 5367),

Gene: Morrow\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Morrow\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: MrGordo\_9 Start: 4339, Stop: 5751, Start Num: 28

Candidate Starts for MrGordo\_9:

(Start: 28 @4339 has 166 MA's), (Start: 36 @4387 has 4 MA's), (64, 4591), (80, 4663), (84, 4696), (85, 4735), (132, 4969), (154, 5128), (160, 5155), (212, 5386), (229, 5419), (261, 5515), (277, 5569), (291, 5611), (306, 5662),

Gene: Mryolo\_8 Start: 4348, Stop: 5781, Start Num: 28

Candidate Starts for Mryolo\_8:

(Start: 28 @4348 has 166 MA's), (Start: 36 @4396 has 4 MA's), (64, 4600), (83, 4702), (84, 4705), (85, 4744), (132, 4999), (154, 5158), (160, 5185), (185, 5272), (212, 5416), (229, 5449), (261, 5545), (277, 5599), (291, 5641), (306, 5692),

Gene: MsGreen\_26 Start: 24962, Stop: 26434, Start Num: 28

Candidate Starts for MsGreen\_26:

(Start: 28 @24962 has 166 MA's), (Start: 36 @25010 has 4 MA's), (48, 25064), (52, 25094), (53, 25097), (58, 25139), (64, 25214), (85, 25358), (86, 25370), (132, 25598), (141, 25667), (158, 25784), (191, 25916), (193, 25922), (212, 26042), (229, 26075), (233, 26087), (250, 26147), (272, 26225), (314, 26390),

Gene: Mule\_8 Start: 4424, Stop: 5851, Start Num: 28

Candidate Starts for Mule\_8:

(Start: 28 @4424 has 166 MA's), (Start: 36 @4472 has 4 MA's), (64, 4676), (83, 4778), (84, 4781), (85, 4820), (94, 4952), (132, 5075), (154, 5234), (160, 5261), (212, 5492), (229, 5525), (261, 5621), (277, 5675), (291, 5717), (306, 5768),

Gene: Mundrea\_8 Start: 3919, Stop: 5394, Start Num: 26

Candidate Starts for Mundrea\_8:

(Start: 26 @3919 has 172 MA's), (64, 4171), (85, 4330), (86, 4342), (110, 4510), (132, 4591), (140, 4660), (155, 4762), (157, 4774), (158, 4777), (191, 4909), (200, 4990), (212, 5032), (224, 5056), (265, 5194), (268, 5203), (290, 5266), (300, 5287), (305, 5305),

Gene: Museum\_10 Start: 4150, Stop: 5583, Start Num: 28

Candidate Starts for Museum\_10:

(Start: 28 @4150 has 166 MA's), (Start: 36 @4198 has 4 MA's), (48, 4252), (64, 4402), (83, 4504), (84, 4507), (85, 4546), (132, 4801), (154, 4960), (160, 4987), (185, 5074), (212, 5218), (229, 5251), (261, 5347), (277, 5401), (291, 5443), (306, 5494),

Gene: MyraDee\_7 Start: 3258, Stop: 4625, Start Num: 24

Candidate Starts for MyraDee\_7:

(Start: 24 @3258 has 1 MA's), (Start: 36 @3309 has 4 MA's), (64, 3513), (84, 3636), (85, 3672), (86, 3684), (96, 3789), (102, 3801), (124, 3861), (128, 3873), (132, 3909), (154, 4068), (155, 4071), (194, 4209), (231, 4344), (247, 4377), (253, 4395), (265, 4440), (290, 4503), (307, 4572),

Gene: NEHalo\_9 Start: 4208, Stop: 5593, Start Num: 36

Candidate Starts for NEHalo\_9:

(Start: 28 @4160 has 166 MA's), (Start: 36 @4208 has 4 MA's), (48, 4262), (64, 4412), (83, 4514), (84, 4517), (85, 4556), (132, 4811), (154, 4970), (160, 4997), (185, 5084), (212, 5228), (229, 5261), (261, 5357), (277, 5411), (291, 5453), (306, 5504),

Gene: Naira\_9 Start: 4539, Stop: 5972, Start Num: 28

Candidate Starts for Naira\_9:

(Start: 28 @4539 has 166 MA's), (Start: 36 @4587 has 4 MA's), (48, 4641), (64, 4791), (83, 4893), (84, 4896), (85, 4935), (132, 5190), (154, 5349), (160, 5376), (212, 5607), (229, 5640), (277, 5790), (291, 5832), (302, 5868), (306, 5883),

Gene: Nebs\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Nebs\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Neeharika16\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Neeharika16\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Nemo27\_8 Start: 3920, Stop: 5422, Start Num: 26

Candidate Starts for Nemo27\_8:

(Start: 26 @3920 has 172 MA's), (53, 4055), (64, 4172), (83, 4292), (85, 4331), (86, 4343), (127, 4550), (132, 4589), (157, 4772), (158, 4775), (191, 4907), (193, 4913), (212, 5033), (237, 5087), (250, 5138), (265, 5201), (275, 5234),

Gene: Nerujay\_10 Start: 5034, Stop: 6428, Start Num: 32

Candidate Starts for Nerujay\_10:

(21, 4992), (Start: 32 @5034 has 10 MA's), (47, 5112), (64, 5268), (84, 5373), (85, 5412), (132, 5646), (154, 5805), (160, 5832), (212, 6063), (229, 6096), (277, 6246), (291, 6288), (306, 6339),

Gene: Newrala\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Newrala\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Nhonho\_9 Start: 4456, Stop: 5877, Start Num: 25

Candidate Starts for Nhonho\_9:

(Start: 25 @4456 has 52 MA's), (61, 4681), (73, 4777), (85, 4870), (94, 4972), (132, 5095), (154, 5254), (160, 5281), (212, 5512), (229, 5545), (277, 5695), (291, 5737), (306, 5788),

Gene: Nicholas\_26 Start: 24962, Stop: 26434, Start Num: 28

Candidate Starts for Nicholas\_26:

(Start: 28 @24962 has 166 MA's), (Start: 36 @25010 has 4 MA's), (48, 25064), (52, 25094), (53, 25097), (58, 25139), (64, 25214), (85, 25358), (86, 25370), (132, 25598), (141, 25667), (158, 25784), (191, 25916), (193, 25922), (212, 26042), (229, 26075), (233, 26087), (250, 26147), (272, 26225), (314, 26390),

Gene: Nilo\_36 Start: 32597, Stop: 34066, Start Num: 34

Candidate Starts for Nilo\_36:

(Start: 34 @32597 has 37 MA's), (41, 32639), (51, 32702), (62, 32804), (82, 32951), (83, 32969), (85, 33011), (86, 33023), (90, 33071), (109, 33167), (114, 33179), (116, 33188), (122, 33221), (132, 33275), (137, 33320), (155, 33479), (159, 33500), (160, 33503), (172, 33548), (178, 33578), (197, 33647), (198, 33662), (200, 33686), (212, 33731), (223, 33755), (253, 33842), (260, 33872), (262, 33875), (270, 33905), (278, 33935), (293, 33977),

Gene: Niza\_10 Start: 5182, Stop: 6603, Start Num: 25

Candidate Starts for Niza\_10:

(Start: 25 @5182 has 52 MA's), (64, 5461), (73, 5503), (85, 5596), (94, 5698), (132, 5821), (154, 5980), (160, 6007), (212, 6238), (229, 6271), (261, 6367), (277, 6421), (291, 6463), (306, 6514),

Gene: Noelle\_8 Start: 3990, Stop: 5489, Start Num: 26

Candidate Starts for Noelle\_8:

(Start: 26 @3990 has 172 MA's), (Start: 42 @4068 has 2 MA's), (46, 4077), (52, 4122), (53, 4125), (64, 4242), (83, 4362), (85, 4401), (86, 4413), (127, 4617), (132, 4656), (157, 4839), (158, 4842), (191,

4974), (193, 4980), (212, 5100), (237, 5154), (250, 5205), (265, 5268), (275, 5301),

Gene: NorthStar\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for NorthStar\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Norz\_10 Start: 5109, Stop: 6524, Start Num: 25

Candidate Starts for Norz\_10:

(16, 5073), (Start: 20 @5082 has 3 MA's), (Start: 25 @5109 has 52 MA's), (64, 5388), (73, 5430), (85, 5523), (94, 5625), (132, 5748), (154, 5907), (160, 5934), (185, 6021), (212, 6165), (229, 6198), (277, 6348), (291, 6390), (306, 6441),

Gene: NotAPhaseMom\_8 Start: 3925, Stop: 5427, Start Num: 26

Candidate Starts for NotAPhaseMom\_8:

(Start: 26 @3925 has 172 MA's), (53, 4060), (64, 4177), (83, 4297), (85, 4336), (86, 4348), (127, 4555), (132, 4594), (157, 4777), (158, 4780), (191, 4912), (193, 4918), (212, 5038), (237, 5092), (250, 5143), (265, 5206), (275, 5239),

Gene: NothingSpecial\_11 Start: 6508, Stop: 7986, Start Num: 26

Candidate Starts for NothingSpecial\_11:

(Start: 26 @6508 has 172 MA's), (37, 6559), (48, 6613), (58, 6688), (72, 6823), (83, 6874), (85, 6916), (86, 6928), (89, 6988), (132, 7183), (140, 7252), (157, 7366), (158, 7369), (176, 7438), (191, 7501), (204, 7594), (212, 7624), (224, 7648), (226, 7651), (239, 7687), (265, 7786), (268, 7795),

Gene: Nyxis\_8 Start: 3921, Stop: 5405, Start Num: 26

Candidate Starts for Nyxis\_8:

(Start: 26 @3921 has 172 MA's), (Start: 42 @3999 has 2 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (132, 4587), (140, 4656), (155, 4758), (157, 4770), (158, 4773), (191, 4905), (204, 4998), (212, 5031), (256, 5163), (264, 5193), (272, 5220), (280, 5247), (309, 5331),

Gene: OKaNui\_8 Start: 3686, Stop: 5188, Start Num: 26

Candidate Starts for OKaNui\_8:

(Start: 26 @3686 has 172 MA's), (53, 3821), (64, 3938), (83, 4058), (85, 4097), (86, 4109), (102, 4247), (127, 4316), (132, 4355), (157, 4538), (158, 4541), (191, 4673), (193, 4679), (212, 4799), (237, 4853), (250, 4904), (265, 4967), (275, 5000),

Gene: Obama12\_8 Start: 4008, Stop: 5411, Start Num: 42

Candidate Starts for Obama12\_8:

(Start: 26 @3930 has 172 MA's), (Start: 42 @4008 has 2 MA's), (64, 4188), (85, 4347), (86, 4359), (132, 4608), (140, 4677), (157, 4791), (158, 4794), (176, 4863), (191, 4926), (212, 5049), (224, 5073), (265, 5211), (290, 5283), (300, 5304), (305, 5322),

Gene: Ohfah\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Ohfah\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Ohno789\_8 Start: 4009, Stop: 5421, Start Num: 28

Candidate Starts for Ohno789\_8:

(Start: 28 @4009 has 166 MA's), (Start: 36 @4057 has 4 MA's), (64, 4261), (80, 4333), (84, 4366), (85, 4405), (132, 4639), (154, 4798), (160, 4825), (212, 5056), (229, 5089), (277, 5239), (291, 5281), (306, 5332),

Gene: Oogway\_8 Start: 4580, Stop: 6013, Start Num: 28

Candidate Starts for Oogway\_8:

(Start: 28 @4580 has 166 MA's), (Start: 36 @4628 has 4 MA's), (64, 4832), (83, 4934), (84, 4937), (85, 4976), (132, 5231), (154, 5390), (160, 5417), (212, 5648), (229, 5681), (277, 5831), (291, 5873), (306, 5924),

Gene: Opia\_47 Start: 40784, Stop: 42295, Start Num: 31

Candidate Starts for Opia\_47:

(Start: 31 @40784 has 70 MA's), (Start: 34 @40796 has 37 MA's), (53, 40907), (62, 41003), (72, 41108), (80, 41138), (84, 41183), (85, 41222), (86, 41234), (95, 41360), (99, 41369), (100, 41375), (107, 41393), (111, 41405), (113, 41408), (117, 41420), (119, 41426), (131, 41492), (135, 41543), (143, 41624), (151, 41681), (155, 41711), (159, 41732), (172, 41780), (179, 41810), (186, 41840), (189, 41846), (199, 41912), (215, 41969), (241, 42026), (246, 42044), (247, 42047), (265, 42119), (268, 42128), (273, 42137), (299, 42221),

Gene: PP\_18 Start: 9773, Stop: 11242, Start Num: 26

Candidate Starts for PP\_18:

(17, 9740), (22, 9752), (Start: 26 @9773 has 172 MA's), (38, 9827), (62, 9998), (64, 10031), (77, 10109), (85, 10190), (86, 10202), (102, 10337), (123, 10394), (132, 10445), (144, 10562), (159, 10670), (177, 10736), (192, 10787), (212, 10901), (265, 11042), (286, 11105), (287, 11108), (292, 11126), (319, 11237),

Gene: PSullivan\_11 Start: 5068, Stop: 6501, Start Num: 28

Candidate Starts for PSullivan\_11:

(Start: 28 @5068 has 166 MA's), (Start: 36 @5116 has 4 MA's), (64, 5320), (83, 5422), (84, 5425), (85, 5464), (132, 5719), (154, 5878), (160, 5905), (212, 6136), (229, 6169), (261, 6265), (277, 6319), (291, 6361), (306, 6412),

Gene: Pace1224\_26 Start: 25277, Stop: 26638, Start Num: 30

Candidate Starts for Pace1224\_26:

(Start: 30 @25277 has 1 MA's), (43, 25343), (49, 25379), (50, 25382), (51, 25400), (62, 25490), (77, 25583), (81, 25601), (84, 25625), (85, 25664), (104, 25841), (107, 25853), (119, 25883), (132, 25964), (133, 25979), (147, 26066), (155, 26126), (158, 26141), (159, 26147), (184, 26237), (188, 26264), (212, 26408), (231, 26447),

Gene: PacerPaul\_9 Start: 4857, Stop: 6269, Start Num: 28

Candidate Starts for PacerPaul\_9:

(Start: 28 @4857 has 166 MA's), (Start: 36 @4905 has 4 MA's), (64, 5109), (80, 5181), (84, 5214), (85, 5253), (132, 5487), (154, 5646), (160, 5673), (212, 5904), (229, 5937), (277, 6087), (291, 6129), (306, 6180),

Gene: PainterBoy\_11 Start: 5814, Stop: 7079, Start Num: 31

Candidate Starts for PainterBoy\_11:

(Start: 31 @5814 has 70 MA's), (Start: 35 @5832 has 1 MA's), (57, 5970), (59, 5982), (66, 6093), (72, 6126), (85, 6240), (86, 6252), (88, 6285), (95, 6369), (97, 6372), (99, 6378), (101, 6387), (120, 6444), (129, 6492), (155, 6711), (161, 6738), (166, 6762), (173, 6786), (196, 6879), (208, 6945), (221, 6984), (225, 6990),

Gene: Palestino\_8 Start: 3921, Stop: 5423, Start Num: 26



Candidate Starts for Palestino\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Papez\_10 Start: 5846, Stop: 7264, Start Num: 25

Candidate Starts for Papez\_10:

(16, 5810), (Start: 20 @5819 has 3 MA's), (Start: 25 @5846 has 52 MA's), (64, 6125), (73, 6167), (85, 6260), (94, 6362), (132, 6485), (154, 6644), (160, 6671), (212, 6902), (229, 6935), (277, 7085), (291, 7127), (306, 7178),

Gene: Paphu\_8 Start: 4046, Stop: 5458, Start Num: 28

Candidate Starts for Paphu\_8:

(Start: 28 @4046 has 166 MA's), (Start: 36 @4094 has 4 MA's), (64, 4298), (80, 4370), (84, 4403), (85, 4442), (132, 4676), (154, 4835), (160, 4862), (212, 5093), (229, 5126), (261, 5222), (277, 5276), (291, 5318), (306, 5369),

Gene: Papyrus\_35 Start: 32256, Stop: 33725, Start Num: 34

Candidate Starts for Papyrus\_35:

(Start: 34 @32256 has 37 MA's), (41, 32298), (51, 32361), (62, 32463), (63, 32481), (82, 32610), (83, 32628), (85, 32670), (86, 32682), (90, 32730), (114, 32838), (116, 32847), (122, 32880), (132, 32934), (137, 32979), (155, 33138), (159, 33159), (160, 33162), (172, 33207), (178, 33237), (198, 33321), (200, 33345), (212, 33390), (223, 33414), (253, 33501), (260, 33531), (278, 33594), (293, 33636),

Gene: Paraselene\_8 Start: 4349, Stop: 5770, Start Num: 25

Candidate Starts for Paraselene\_8:

(Start: 25 @4349 has 52 MA's), (64, 4628), (73, 4670), (85, 4763), (94, 4865), (132, 4988), (154, 5147), (212, 5405), (229, 5438), (261, 5534), (277, 5588), (291, 5630), (306, 5681),

Gene: Pari\_10 Start: 4804, Stop: 6237, Start Num: 28

Candidate Starts for Pari\_10:

(Start: 28 @4804 has 166 MA's), (Start: 36 @4852 has 4 MA's), (48, 4906), (64, 5056), (83, 5158), (84, 5161), (85, 5200), (132, 5455), (154, 5614), (160, 5641), (185, 5728), (212, 5872), (229, 5905), (261, 6001), (277, 6055), (291, 6097), (306, 6148),

Gene: Parliament\_8 Start: 4407, Stop: 5840, Start Num: 28

Candidate Starts for Parliament\_8:

(Start: 28 @4407 has 166 MA's), (Start: 36 @4455 has 4 MA's), (64, 4659), (83, 4761), (84, 4764), (85, 4803), (132, 5058), (154, 5217), (160, 5244), (212, 5475), (229, 5508), (261, 5604), (277, 5658), (291, 5700), (306, 5751),

Gene: PascalRango\_8 Start: 4203, Stop: 5636, Start Num: 28

Candidate Starts for PascalRango\_8:

(Start: 28 @4203 has 166 MA's), (Start: 36 @4251 has 4 MA's), (48, 4305), (64, 4455), (83, 4557), (84, 4560), (85, 4599), (132, 4854), (154, 5013), (160, 5040), (212, 5271), (229, 5304), (261, 5400), (277, 5454), (291, 5496), (306, 5547),

Gene: PattyP\_10 Start: 4371, Stop: 5792, Start Num: 25

Candidate Starts for PattyP\_10:

(Start: 25 @4371 has 52 MA's), (64, 4650), (73, 4692), (85, 4785), (94, 4887), (132, 5010), (154, 5169), (160, 5196), (212, 5427), (229, 5460), (261, 5556), (277, 5610), (291, 5652), (306, 5703),

Gene: Payneful\_9 Start: 4150, Stop: 5583, Start Num: 28

Candidate Starts for Payneful\_9:

(Start: 28 @4150 has 166 MA's), (Start: 36 @4198 has 4 MA's), (64, 4402), (83, 4504), (84, 4507), (85, 4546), (132, 4801), (154, 4960), (160, 4987), (212, 5218), (229, 5251), (261, 5347), (277, 5401), (291, 5443), (306, 5494),

Gene: PeaceMeal1\_8 Start: 2286, Stop: 3782, Start Num: 31

Candidate Starts for PeaceMeal1\_8:

(Start: 31 @2286 has 70 MA's), (Start: 35 @2304 has 1 MA's), (59, 2454), (66, 2565), (72, 2598), (79, 2619), (85, 2712), (86, 2724), (88, 2757), (124, 2964), (148, 3156), (150, 3171), (153, 3198), (174, 3282), (175, 3288), (199, 3408), (207, 3432), (210, 3444), (219, 3471), (252, 3561), (256, 3576), (274, 3633), (297, 3714),

Gene: Peaches\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Peaches\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Pelly\_10 Start: 5000, Stop: 6469, Start Num: 28

Candidate Starts for Pelly\_10:

(Start: 28 @5000 has 166 MA's), (Start: 36 @5048 has 4 MA's), (64, 5252), (83, 5354), (84, 5357), (85, 5396), (132, 5651), (154, 5810), (160, 5837), (178, 5912), (212, 6104), (229, 6137), (277, 6287), (291, 6329), (306, 6380),

Gene: Pepe\_10 Start: 5023, Stop: 6492, Start Num: 28

Candidate Starts for Pepe\_10:

(Start: 28 @5023 has 166 MA's), (Start: 36 @5071 has 4 MA's), (64, 5275), (83, 5377), (84, 5380), (85, 5419), (132, 5674), (154, 5833), (160, 5860), (178, 5935), (212, 6127), (229, 6160), (277, 6310), (291, 6352), (306, 6403),

Gene: Perplexer\_8 Start: 3936, Stop: 5426, Start Num: 26

Candidate Starts for Perplexer\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (83, 4308), (85, 4347), (86, 4359), (132, 4602), (140, 4671), (155, 4773), (157, 4785), (158, 4788), (191, 4920), (193, 4926), (212, 5043), (250, 5148), (263, 5196), (286, 5274), (309, 5361),

Gene: Perseus\_10 Start: 4720, Stop: 6153, Start Num: 28

Candidate Starts for Perseus\_10:

(Start: 28 @4720 has 166 MA's), (Start: 36 @4768 has 4 MA's), (64, 4972), (83, 5074), (84, 5077), (85, 5116), (94, 5248), (132, 5371), (154, 5530), (160, 5557), (212, 5788), (229, 5821), (277, 5971), (291, 6013), (306, 6064),

Gene: PeterPeter\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for PeterPeter\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Peterson\_11 Start: 5843, Stop: 7252, Start Num: 28

Candidate Starts for Peterson\_11:

(Start: 28 @5843 has 166 MA's), (Start: 36 @5891 has 4 MA's), (64, 6095), (80, 6167), (84, 6200), (85, 6239), (132, 6473), (154, 6632), (160, 6659), (212, 6890), (229, 6923), (277, 7073), (291, 7115), (306, 7166),

Gene: PetiteSangsue\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for PetiteSangsue\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (280, 5262), (286, 5280), (304, 5346), (309, 5367),

Gene: Petp2012\_11 Start: 4512, Stop: 5945, Start Num: 28

Candidate Starts for Petp2012\_11:

(Start: 28 @4512 has 166 MA's), (Start: 36 @4560 has 4 MA's), (48, 4614), (64, 4764), (83, 4866), (84, 4869), (85, 4908), (132, 5163), (154, 5322), (160, 5349), (212, 5580), (229, 5613), (261, 5709), (277, 5763), (291, 5805), (306, 5856),

Gene: Petruccio\_9 Start: 4278, Stop: 5711, Start Num: 28

Candidate Starts for Petruccio\_9:

(Start: 28 @4278 has 166 MA's), (Start: 36 @4326 has 4 MA's), (64, 4530), (83, 4632), (84, 4635), (85, 4674), (94, 4806), (132, 4929), (154, 5088), (160, 5115), (212, 5346), (229, 5379), (277, 5529), (291, 5571), (306, 5622),

Gene: Phacado\_8 Start: 3920, Stop: 5422, Start Num: 26

Candidate Starts for Phacado\_8:

(Start: 26 @3920 has 172 MA's), (53, 4055), (64, 4172), (83, 4292), (85, 4331), (86, 4343), (127, 4550), (132, 4589), (157, 4772), (158, 4775), (191, 4907), (193, 4913), (212, 5033), (237, 5087), (250, 5138), (265, 5201), (275, 5234),

Gene: Phaded\_12 Start: 6538, Stop: 8052, Start Num: 26

Candidate Starts for Phaded\_12:

(13, 6475), (Start: 26 @6538 has 172 MA's), (85, 6949), (86, 6961), (127, 7177), (132, 7216), (140, 7285), (158, 7402), (212, 7657), (232, 7699), (250, 7762), (286, 7888), (309, 7978), (311, 7990),

Gene: Phantasmagoria\_47 Start: 40808, Stop: 42307, Start Num: 34

Candidate Starts for Phantasmagoria\_47:

(Start: 31 @40796 has 70 MA's), (Start: 34 @40808 has 37 MA's), (53, 40919), (62, 41015), (72, 41120), (80, 41150), (82, 41162), (84, 41195), (85, 41234), (86, 41246), (95, 41372), (99, 41381), (100, 41387), (107, 41405), (111, 41417), (113, 41420), (117, 41432), (119, 41438), (131, 41504), (143, 41636), (151, 41693), (155, 41723), (159, 41744), (172, 41792), (179, 41822), (186, 41852), (189, 41858), (199, 41924), (215, 41981), (241, 42038), (246, 42056), (247, 42059), (265, 42131), (268, 42140), (273, 42149), (299, 42233),

Gene: Pharaoh\_10 Start: 6169, Stop: 7521, Start Num: 31

Candidate Starts for Pharaoh\_10:

(Start: 31 @6169 has 70 MA's), (38, 6211), (40, 6223), (48, 6265), (50, 6274), (53, 6298), (64, 6415), (77, 6475), (85, 6556), (86, 6568), (102, 6688), (103, 6694), (128, 6766), (132, 6802), (134, 6832), (155, 6964), (162, 6997), (225, 7240), (248, 7297), (261, 7336), (284, 7399),

Gene: Phelipe\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Phelipe\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: PherrisBueller\_10 Start: 4452, Stop: 5921, Start Num: 28

Candidate Starts for PherrisBueller\_10:

(Start: 28 @4452 has 166 MA's), (Start: 36 @4500 has 4 MA's), (64, 4704), (83, 4806), (84, 4809), (85, 4848), (94, 4980), (132, 5103), (154, 5262), (160, 5289), (180, 5364), (182, 5373), (212, 5556), (229, 5589), (277, 5739), (291, 5781), (306, 5832),

Gene: Phighter1804\_8 Start: 3927, Stop: 5408, Start Num: 26

Candidate Starts for Phighter1804\_8:

(Start: 26 @3927 has 172 MA's), (Start: 42 @4005 has 2 MA's), (64, 4185), (85, 4344), (86, 4356), (132, 4605), (140, 4674), (155, 4776), (157, 4788), (158, 4791), (176, 4860), (191, 4923), (200, 5004), (212, 5046), (224, 5070), (265, 5208), (268, 5217), (290, 5280), (300, 5301), (305, 5319),

Gene: PhineBark\_8 Start: 4066, Stop: 5499, Start Num: 28

Candidate Starts for PhineBark\_8:

(Start: 28 @4066 has 166 MA's), (Start: 36 @4114 has 4 MA's), (64, 4318), (84, 4423), (85, 4462), (132, 4717), (154, 4876), (160, 4903), (212, 5134), (229, 5167), (277, 5317), (291, 5359), (306, 5410),

Gene: Phlippers\_8 Start: 4537, Stop: 5970, Start Num: 28

Candidate Starts for Phlippers\_8:

(Start: 28 @4537 has 166 MA's), (Start: 36 @4585 has 4 MA's), (64, 4789), (83, 4891), (84, 4894), (85, 4933), (132, 5188), (154, 5347), (160, 5374), (212, 5605), (229, 5638), (277, 5788), (291, 5830), (306, 5881),

Gene: Phontbonne\_8 Start: 3916, Stop: 5403, Start Num: 26

Candidate Starts for Phontbonne\_8:

(Start: 26 @3916 has 172 MA's), (53, 4051), (64, 4168), (83, 4288), (85, 4327), (86, 4339), (102, 4477), (127, 4546), (132, 4585), (157, 4768), (158, 4771), (191, 4903), (204, 4996), (212, 5029), (256, 5161), (264, 5191), (272, 5218), (280, 5245), (309, 5329),

Gene: PhrostyMug\_8 Start: 4424, Stop: 5851, Start Num: 28

Candidate Starts for PhrostyMug\_8:

(Start: 28 @4424 has 166 MA's), (Start: 36 @4472 has 4 MA's), (64, 4676), (83, 4778), (84, 4781), (85, 4820), (94, 4952), (132, 5075), (154, 5234), (160, 5261), (212, 5492), (229, 5525), (261, 5621), (277, 5675), (291, 5717), (306, 5768),

Gene: PinkPlastic\_7 Start: 4067, Stop: 5500, Start Num: 28

Candidate Starts for PinkPlastic\_7:

(Start: 28 @4067 has 166 MA's), (Start: 36 @4115 has 4 MA's), (48, 4169), (64, 4319), (83, 4421), (84, 4424), (85, 4463), (132, 4718), (154, 4877), (185, 4991), (212, 5135), (229, 5168), (277, 5318), (291, 5360), (306, 5411),

Gene: Pinto\_11 Start: 4710, Stop: 6143, Start Num: 28

Candidate Starts for Pinto\_11:

(Start: 28 @4710 has 166 MA's), (Start: 36 @4758 has 4 MA's), (64, 4962), (83, 5064), (84, 5067), (85, 5106), (132, 5361), (154, 5520), (160, 5547), (212, 5778), (229, 5811), (277, 5961), (291, 6003), (306, 6054),

Gene: Pipcraft\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Pipcraft\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Pippin\_10 Start: 4409, Stop: 5842, Start Num: 28

Candidate Starts for Pippin\_10:

(Start: 28 @4409 has 166 MA's), (Start: 36 @4457 has 4 MA's), (64, 4661), (83, 4763), (84, 4766), (85, 4805), (132, 5060), (154, 5219), (160, 5246), (212, 5477), (229, 5510), (277, 5660), (291, 5702), (306, 5753),

Gene: Pita2\_11 Start: 5068, Stop: 6501, Start Num: 28

Candidate Starts for Pita2\_11:

(Start: 28 @5068 has 166 MA's), (Start: 36 @5116 has 4 MA's), (64, 5320), (83, 5422), (84, 5425), (85, 5464), (132, 5719), (154, 5878), (160, 5905), (212, 6136), (229, 6169), (261, 6265), (277, 6319), (291, 6361), (306, 6412),

Gene: Pmask\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Pmask\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Polymorphads\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Polymorphads\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Polyphemus\_12 Start: 5856, Stop: 7067, Start Num: 31

Candidate Starts for Polyphemus\_12:

(Start: 31 @5856 has 70 MA's), (Start: 35 @5874 has 1 MA's), (59, 6024), (60, 6039), (66, 6135), (80, 6198), (85, 6282), (86, 6294), (88, 6327), (129, 6528), (155, 6747), (168, 6786), (171, 6792), (191, 6855),

Gene: Poompha\_8 Start: 2284, Stop: 3780, Start Num: 31

Candidate Starts for Poompha\_8:

(Start: 31 @2284 has 70 MA's), (Start: 35 @2302 has 1 MA's), (59, 2452), (66, 2563), (72, 2596), (79, 2617), (85, 2710), (86, 2722), (88, 2755), (124, 2962), (148, 3154), (150, 3169), (153, 3196), (174, 3280), (175, 3286), (199, 3406), (207, 3430), (210, 3442), (219, 3469), (252, 3559), (256, 3574), (274, 3631), (297, 3712),

Gene: Porcelain\_46 Start: 37509, Stop: 38897, Start Num: 25

Candidate Starts for Porcelain\_46:

(Start: 25 @37509 has 52 MA's), (Start: 36 @37560 has 4 MA's), (47, 37608), (62, 37731), (64, 37764), (70, 37797), (84, 37869), (85, 37908), (121, 38106), (123, 38118), (131, 38154), (132, 38169), (155, 38331), (160, 38355), (180, 38442), (212, 38622), (222, 38643), (271, 38775), (272, 38778), (277, 38793), (279, 38796), (301, 38862),

Gene: Priamo\_13 Start: 5872, Stop: 7083, Start Num: 31

Candidate Starts for Priamo\_13:

(Start: 31 @5872 has 70 MA's), (Start: 35 @5890 has 1 MA's), (59, 6040), (66, 6151), (80, 6214), (85, 6298), (86, 6310), (88, 6343), (129, 6544), (155, 6763), (167, 6799), (168, 6802), (191, 6871),

Gene: PrinceCharming\_47 Start: 40916, Stop: 42415, Start Num: 34

Candidate Starts for PrinceCharming\_47:

(Start: 31 @40904 has 70 MA's), (Start: 34 @40916 has 37 MA's), (53, 41027), (62, 41123), (72, 41228), (80, 41258), (84, 41303), (85, 41342), (86, 41354), (95, 41480), (99, 41489), (100, 41495), (107, 41513), (111, 41525), (113, 41528), (117, 41540), (119, 41546), (131, 41612), (143, 41744), (151, 41801), (155, 41831), (159, 41852), (172, 41900), (179, 41930), (186, 41960), (189, 41966),

(199, 42032), (215, 42089), (241, 42146), (246, 42164), (247, 42167), (265, 42239), (268, 42248), (273, 42257), (299, 42341),

Gene: ProMouse\_8 Start: 5043, Stop: 6464, Start Num: 25

Candidate Starts for ProMouse\_8:

(Start: 20 @5016 has 3 MA's), (Start: 25 @5043 has 52 MA's), (64, 5322), (73, 5364), (85, 5457), (94, 5559), (132, 5682), (154, 5841), (160, 5868), (185, 5955), (212, 6099), (229, 6132), (277, 6282), (291, 6324), (306, 6375),

Gene: Pukovnik\_11 Start: 6123, Stop: 7628, Start Num: 26

Candidate Starts for Pukovnik\_11:

(13, 6060), (Start: 26 @6123 has 172 MA's), (85, 6534), (86, 6546), (102, 6693), (132, 6801), (140, 6870), (157, 6984), (158, 6987), (191, 7119), (193, 7125), (212, 7242), (232, 7284), (250, 7347), (286, 7473), (309, 7563),

Gene: Pumbaa\_8 Start: 3926, Stop: 5407, Start Num: 26

Candidate Starts for Pumbaa\_8:

(Start: 26 @3926 has 172 MA's), (Start: 42 @4004 has 2 MA's), (64, 4184), (85, 4343), (86, 4355), (132, 4604), (140, 4673), (155, 4775), (157, 4787), (158, 4790), (176, 4859), (191, 4922), (200, 5003), (212, 5045), (224, 5069), (265, 5207), (268, 5216), (290, 5279), (300, 5300), (305, 5318),

Gene: QTRlifeCrisis\_9 Start: 5075, Stop: 6469, Start Num: 32

Candidate Starts for QTRlifeCrisis\_9:

(21, 5033), (Start: 32 @5075 has 10 MA's), (47, 5153), (64, 5309), (84, 5414), (85, 5453), (132, 5687), (154, 5846), (160, 5873), (212, 6104), (229, 6137), (277, 6287), (291, 6329), (306, 6380),

Gene: Qyrzula\_44 Start: 40943, Stop: 42454, Start Num: 31

Candidate Starts for Qyrzula\_44:

(Start: 31 @40943 has 70 MA's), (Start: 34 @40955 has 37 MA's), (53, 41066), (62, 41162), (72, 41267), (80, 41297), (84, 41342), (85, 41381), (86, 41393), (95, 41519), (99, 41528), (100, 41534), (107, 41552), (111, 41564), (113, 41567), (117, 41579), (119, 41585), (131, 41651), (143, 41783), (151, 41840), (155, 41870), (159, 41891), (172, 41939), (179, 41969), (186, 41999), (189, 42005), (199, 42071), (215, 42128), (241, 42185), (246, 42203), (247, 42206), (265, 42278), (268, 42287), (273, 42296), (299, 42380),

Gene: Rachaly\_12 Start: 6415, Stop: 7713, Start Num: 26

Candidate Starts for Rachaly\_12:

(Start: 26 @6415 has 172 MA's), (48, 6517), (69, 6700), (85, 6826), (86, 6838), (88, 6886), (121, 6979), (126, 6985), (136, 7051), (203, 7318), (212, 7351), (225, 7375), (265, 7513), (268, 7522), (309, 7642),

Gene: Raid\_10 Start: 4339, Stop: 5760, Start Num: 25

Candidate Starts for Raid\_10:

(Start: 25 @4339 has 52 MA's), (64, 4618), (73, 4660), (85, 4753), (94, 4855), (132, 4978), (154, 5137), (160, 5164), (212, 5395), (229, 5428), (277, 5578), (291, 5620), (306, 5671),

Gene: Rajelicia\_8 Start: 4207, Stop: 5640, Start Num: 28

Candidate Starts for Rajelicia\_8:

(Start: 28 @4207 has 166 MA's), (Start: 36 @4255 has 4 MA's), (48, 4309), (64, 4459), (83, 4561), (84, 4564), (85, 4603), (132, 4858), (154, 5017), (160, 5044), (212, 5275), (229, 5308), (261, 5404), (277, 5458), (291, 5500), (306, 5551),

Gene: Rearden\_42 Start: 37120, Stop: 38508, Start Num: 25

Candidate Starts for Rearden\_42:

(Start: 25 @37120 has 52 MA's), (Start: 36 @37171 has 4 MA's), (Start: 42 @37198 has 2 MA's), (47, 37219), (62, 37342), (64, 37375), (70, 37408), (84, 37480), (85, 37519), (121, 37717), (123, 37729), (131, 37765), (132, 37780), (155, 37942), (160, 37966), (180, 38053), (212, 38233), (222, 38254), (271, 38386), (272, 38389), (277, 38404), (279, 38407), (290, 38434), (301, 38473),

Gene: Red305\_26 Start: 24962, Stop: 26434, Start Num: 28

Candidate Starts for Red305\_26:

(Start: 28 @24962 has 166 MA's), (Start: 36 @25010 has 4 MA's), (48, 25064), (52, 25094), (53, 25097), (58, 25139), (64, 25214), (85, 25358), (86, 25370), (132, 25598), (141, 25667), (158, 25784), (191, 25916), (193, 25922), (212, 26042), (229, 26075), (233, 26087), (250, 26147), (272, 26225), (314, 26390),

Gene: Refuge\_12 Start: 6968, Stop: 8362, Start Num: 31

Candidate Starts for Refuge\_12:

(Start: 31 @6968 has 70 MA's), (40, 7022), (47, 7058), (48, 7064), (50, 7073), (53, 7097), (64, 7214), (77, 7274), (85, 7355), (86, 7367), (103, 7493), (123, 7550), (132, 7601), (155, 7763), (162, 7796), (195, 7913), (213, 8021), (265, 8162), (267, 8165), (287, 8228), (292, 8246), (298, 8267), (317, 8348),

Gene: Relief\_8 Start: 3922, Stop: 5424, Start Num: 26

Candidate Starts for Relief\_8:

(Start: 26 @3922 has 172 MA's), (53, 4057), (64, 4174), (83, 4294), (85, 4333), (86, 4345), (102, 4483), (127, 4552), (132, 4591), (157, 4774), (158, 4777), (191, 4909), (193, 4915), (212, 5035), (237, 5089), (250, 5140), (265, 5203), (275, 5236),

Gene: Rhinoforte\_47 Start: 40929, Stop: 42428, Start Num: 34

Candidate Starts for Rhinoforte\_47:

(Start: 31 @40917 has 70 MA's), (Start: 34 @40929 has 37 MA's), (53, 41040), (62, 41136), (72, 41241), (80, 41271), (84, 41316), (85, 41355), (86, 41367), (95, 41493), (99, 41502), (100, 41508), (107, 41526), (111, 41538), (113, 41541), (117, 41553), (119, 41559), (131, 41625), (143, 41757), (151, 41814), (155, 41844), (159, 41865), (172, 41913), (179, 41943), (186, 41973), (189, 41979), (199, 42045), (215, 42102), (241, 42159), (246, 42177), (247, 42180), (265, 42252), (268, 42261), (273, 42270), (299, 42354),

Gene: Rhynn\_9 Start: 4637, Stop: 6070, Start Num: 28

Candidate Starts for Rhynn\_9:

(Start: 28 @4637 has 166 MA's), (Start: 36 @4685 has 4 MA's), (64, 4889), (84, 4994), (85, 5033), (132, 5288), (154, 5447), (160, 5474), (212, 5705), (229, 5738), (261, 5834), (277, 5888), (291, 5930), (306, 5981),

Gene: RidgeCB\_9 Start: 4176, Stop: 5597, Start Num: 25

Candidate Starts for RidgeCB\_9:

(Start: 25 @4176 has 52 MA's), (64, 4455), (73, 4497), (85, 4590), (94, 4692), (132, 4815), (154, 4974), (160, 5001), (212, 5232), (229, 5265), (261, 5361), (277, 5415), (291, 5457), (306, 5508),

Gene: Rifter\_13 Start: 5824, Stop: 7038, Start Num: 31

Candidate Starts for Rifter\_13:

(Start: 31 @5824 has 70 MA's), (Start: 35 @5842 has 1 MA's), (59, 5992), (66, 6103), (72, 6136), (80, 6166), (85, 6250), (86, 6262), (88, 6295), (92, 6367), (99, 6385), (129, 6499), (155, 6718), (164, 6745), (168, 6757), (171, 6763), (191, 6826), (245, 7009),

Gene: Ringer\_8 Start: 4646, Stop: 6052, Start Num: 28

Candidate Starts for Ringer\_8:

(Start: 28 @4646 has 166 MA's), (Start: 36 @4694 has 4 MA's), (64, 4898), (80, 4970), (84, 5003), (85, 5042), (132, 5276), (154, 5435), (160, 5462), (212, 5693), (229, 5726), (277, 5876), (291, 5918), (306, 5969),

Gene: Rinkes\_47 Start: 41790, Stop: 43268, Start Num: 34

Candidate Starts for Rinkes\_47:

(Start: 31 @41778 has 70 MA's), (Start: 34 @41790 has 37 MA's), (Start: 35 @41796 has 1 MA's), (53, 41901), (66, 42057), (80, 42120), (83, 42150), (85, 42192), (86, 42204), (88, 42246), (107, 42390), (118, 42423), (132, 42510), (133, 42525), (178, 42819), (215, 42987), (220, 42993), (223, 42999), (240, 43041), (242, 43047), (245, 43056), (285, 43194),

Gene: Riparian\_35 Start: 32058, Stop: 33527, Start Num: 34

Candidate Starts for Riparian\_35:

(Start: 34 @32058 has 37 MA's), (41, 32100), (51, 32163), (62, 32265), (63, 32283), (82, 32412), (83, 32430), (85, 32472), (86, 32484), (90, 32532), (114, 32640), (116, 32649), (122, 32682), (132, 32736), (137, 32781), (155, 32940), (159, 32961), (160, 32964), (172, 33009), (178, 33039), (198, 33123), (200, 33147), (212, 33192), (223, 33216), (253, 33303), (260, 33333), (270, 33366), (278, 33396), (293, 33438),

Gene: Rohr\_10 Start: 4855, Stop: 6276, Start Num: 25

Candidate Starts for Rohr\_10:

(Start: 25 @4855 has 52 MA's), (64, 5134), (73, 5176), (85, 5269), (94, 5371), (132, 5494), (154, 5653), (160, 5680), (212, 5911), (229, 5944), (261, 6040), (277, 6094), (291, 6136), (306, 6187),

Gene: Roksolana\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Roksolana\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Romney\_8 Start: 3920, Stop: 5422, Start Num: 26

Candidate Starts for Romney\_8:

(Start: 26 @3920 has 172 MA's), (53, 4055), (64, 4172), (83, 4292), (85, 4331), (86, 4343), (102, 4481), (127, 4550), (132, 4589), (157, 4772), (158, 4775), (191, 4907), (193, 4913), (212, 5033), (237, 5087), (250, 5138), (265, 5201), (275, 5234),

Gene: Roosevelt\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Roosevelt\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Rope\_35 Start: 32238, Stop: 33707, Start Num: 34

Candidate Starts for Rope\_35:

(Start: 34 @32238 has 37 MA's), (41, 32280), (51, 32343), (62, 32445), (63, 32463), (82, 32592), (83, 32610), (85, 32652), (86, 32664), (90, 32712), (114, 32820), (116, 32829), (122, 32862), (132, 32916), (137, 32961), (155, 33120), (159, 33141), (160, 33144), (172, 33189), (178, 33219), (198, 33303), (200, 33327), (212, 33372), (223, 33396), (253, 33483), (260, 33513), (278, 33576), (293, 33618),

Gene: Rosa24\_7 Start: 3926, Stop: 5407, Start Num: 26

Candidate Starts for Rosa24\_7:

(Start: 26 @3926 has 172 MA's), (Start: 42 @4004 has 2 MA's), (64, 4184), (85, 4343), (86, 4355), (132, 4604), (140, 4673), (157, 4787), (158, 4790), (176, 4859), (191, 4922), (212, 5045), (224, 5069),



(265, 5207), (290, 5279), (300, 5300), (305, 5318),

Gene: Rosebush\_46 Start: 40912, Stop: 42423, Start Num: 31

Candidate Starts for Rosebush\_46:

(Start: 31 @40912 has 70 MA's), (Start: 34 @40924 has 37 MA's), (53, 41035), (62, 41131), (72, 41236), (80, 41266), (84, 41311), (85, 41350), (86, 41362), (95, 41488), (99, 41497), (100, 41503), (107, 41521), (111, 41533), (113, 41536), (117, 41548), (119, 41554), (131, 41620), (143, 41752), (151, 41809), (155, 41839), (159, 41860), (172, 41908), (179, 41938), (186, 41968), (189, 41974), (199, 42040), (215, 42097), (241, 42154), (246, 42172), (247, 42175), (265, 42247), (268, 42256), (273, 42265), (299, 42349),

Gene: Rubeus\_9 Start: 4167, Stop: 5600, Start Num: 28

Candidate Starts for Rubeus\_9:

(Start: 28 @4167 has 166 MA's), (Start: 36 @4215 has 4 MA's), (48, 4269), (64, 4419), (83, 4521), (84, 4524), (85, 4563), (132, 4818), (154, 4977), (160, 5004), (212, 5235), (229, 5268), (261, 5364), (277, 5418), (291, 5460), (306, 5511),

Gene: Rufus\_9 Start: 4224, Stop: 5657, Start Num: 28

Candidate Starts for Rufus\_9:

(Start: 28 @4224 has 166 MA's), (Start: 36 @4272 has 4 MA's), (48, 4326), (64, 4476), (83, 4578), (84, 4581), (85, 4620), (132, 4875), (154, 5034), (185, 5148), (212, 5292), (229, 5325), (261, 5421), (277, 5475), (291, 5517), (306, 5568),

Gene: Ruin\_8 Start: 3920, Stop: 5422, Start Num: 26

Candidate Starts for Ruin\_8:

(Start: 26 @3920 has 172 MA's), (53, 4055), (64, 4172), (82, 4274), (83, 4292), (85, 4331), (86, 4343), (102, 4481), (127, 4550), (132, 4589), (157, 4772), (158, 4775), (191, 4907), (193, 4913), (212, 5033), (237, 5087), (250, 5138), (265, 5201), (275, 5234),

Gene: Ruotula\_8 Start: 4785, Stop: 6218, Start Num: 28

Candidate Starts for Ruotula\_8:

(Start: 28 @4785 has 166 MA's), (Start: 36 @4833 has 4 MA's), (64, 5037), (83, 5139), (84, 5142), (85, 5181), (132, 5436), (154, 5595), (160, 5622), (212, 5853), (229, 5886), (277, 6036), (291, 6078), (306, 6129),

Gene: Rutherferd\_10 Start: 4685, Stop: 6118, Start Num: 28

Candidate Starts for Rutherferd\_10:

(Start: 28 @4685 has 166 MA's), (Start: 36 @4733 has 4 MA's), (64, 4937), (83, 5039), (84, 5042), (85, 5081), (132, 5336), (154, 5495), (160, 5522), (212, 5753), (229, 5786), (277, 5936), (291, 5978), (306, 6029),

Gene: STLscum\_10 Start: 4777, Stop: 6189, Start Num: 28

Candidate Starts for STLscum\_10:

(Start: 28 @4777 has 166 MA's), (Start: 36 @4825 has 4 MA's), (64, 5029), (80, 5101), (84, 5134), (85, 5173), (132, 5407), (154, 5566), (160, 5593), (212, 5824), (229, 5857), (261, 5953), (277, 6007), (291, 6049), (302, 6085), (306, 6100),

Gene: Sabella\_46 Start: 40801, Stop: 42300, Start Num: 34

Candidate Starts for Sabella\_46:

(Start: 31 @40789 has 70 MA's), (Start: 34 @40801 has 37 MA's), (53, 40912), (62, 41008), (72, 41113), (80, 41143), (84, 41188), (85, 41227), (86, 41239), (95, 41365), (99, 41374), (100, 41380), (107, 41398), (111, 41410), (113, 41413), (117, 41425), (119, 41431), (131, 41497), (135, 41548), (143, 41629), (151, 41686), (155, 41716), (159, 41737), (172, 41785), (179, 41815), (186, 41845),

(189, 41851), (199, 41917), (215, 41974), (241, 42031), (246, 42049), (247, 42052), (265, 42124),  
(268, 42133), (273, 42142), (299, 42226),

Gene: Sabertooth\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Sabertooth\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344),  
(102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034),  
(237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Sagefire\_10 Start: 5438, Stop: 6871, Start Num: 28

Candidate Starts for Sagefire\_10:

(Start: 28 @5438 has 166 MA's), (Start: 36 @5486 has 4 MA's), (64, 5690), (83, 5792), (84, 5795), (85,  
5834), (132, 6089), (154, 6248), (160, 6275), (212, 6506), (229, 6539), (277, 6689), (291, 6731), (306,  
6782),

Gene: Samty\_26 Start: 24965, Stop: 26437, Start Num: 28

Candidate Starts for Samty\_26:

(Start: 28 @24965 has 166 MA's), (Start: 36 @25013 has 4 MA's), (48, 25067), (52, 25097), (53,  
25100), (58, 25142), (64, 25217), (85, 25361), (86, 25373), (132, 25601), (141, 25670), (158, 25787),  
(191, 25919), (193, 25925), (212, 26045), (229, 26078), (233, 26090), (250, 26150), (272, 26228),  
(314, 26393),

Gene: Sandaddy\_8 Start: 4561, Stop: 5994, Start Num: 28

Candidate Starts for Sandaddy\_8:

(Start: 28 @4561 has 166 MA's), (Start: 36 @4609 has 4 MA's), (64, 4813), (83, 4915), (84, 4918), (85,  
4957), (94, 5089), (132, 5212), (160, 5398), (212, 5629), (229, 5662), (261, 5758), (277, 5812), (291,  
5854), (306, 5905),

Gene: Sanya\_8 Start: 5223, Stop: 6656, Start Num: 28

Candidate Starts for Sanya\_8:

(Start: 28 @5223 has 166 MA's), (Start: 36 @5271 has 4 MA's), (48, 5325), (64, 5475), (83, 5577), (84,  
5580), (85, 5619), (132, 5874), (154, 6033), (160, 6060), (212, 6291), (229, 6324), (261, 6420), (277,  
6474), (291, 6516), (302, 6552), (306, 6567),

Gene: SarFire\_9 Start: 4422, Stop: 5855, Start Num: 28

Candidate Starts for SarFire\_9:

(Start: 28 @4422 has 166 MA's), (Start: 36 @4470 has 4 MA's), (64, 4674), (83, 4776), (84, 4779), (85,  
4818), (132, 5073), (154, 5232), (160, 5259), (212, 5490), (229, 5523), (261, 5619), (277, 5673), (291,  
5715), (306, 5766),

Gene: Scamp\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Scamp\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344),  
(102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034),  
(237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Scowl\_10 Start: 5114, Stop: 6547, Start Num: 28

Candidate Starts for Scowl\_10:

(Start: 28 @5114 has 166 MA's), (Start: 36 @5162 has 4 MA's), (64, 5366), (83, 5468), (84, 5471), (85,  
5510), (132, 5765), (154, 5924), (160, 5951), (212, 6182), (229, 6215), (277, 6365), (291, 6407), (306,  
6458),

Gene: Seabiscuit\_10 Start: 4305, Stop: 5738, Start Num: 28

Candidate Starts for Seabiscuit\_10:

(Start: 28 @4305 has 166 MA's), (Start: 36 @4353 has 4 MA's), (48, 4407), (64, 4557), (83, 4659), (84, 4662), (85, 4701), (132, 4956), (154, 5115), (160, 5142), (185, 5229), (212, 5373), (229, 5406), (261, 5502), (277, 5556), (291, 5598), (306, 5649),

Gene: Seanderson\_10 Start: 5093, Stop: 6526, Start Num: 28

Candidate Starts for Seanderson\_10:

(Start: 28 @5093 has 166 MA's), (Start: 36 @5141 has 4 MA's), (64, 5345), (83, 5447), (84, 5450), (85, 5489), (132, 5744), (154, 5903), (160, 5930), (212, 6161), (229, 6194), (277, 6344), (291, 6386), (306, 6437),

Gene: Send513\_35 Start: 32594, Stop: 34063, Start Num: 34

Candidate Starts for Send513\_35:

(Start: 34 @32594 has 37 MA's), (51, 32699), (62, 32801), (82, 32948), (83, 32966), (85, 33008), (86, 33020), (90, 33068), (109, 33164), (114, 33176), (116, 33185), (122, 33218), (132, 33272), (137, 33317), (155, 33476), (159, 33497), (160, 33500), (172, 33545), (178, 33575), (197, 33644), (198, 33659), (200, 33683), (212, 33728), (223, 33752), (253, 33839), (260, 33869), (278, 33932), (293, 33974),

Gene: SenorClean\_7 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for SenorClean\_7:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Severus\_8 Start: 2284, Stop: 3780, Start Num: 31

Candidate Starts for Severus\_8:

(Start: 31 @2284 has 70 MA's), (Start: 35 @2302 has 1 MA's), (59, 2452), (66, 2563), (72, 2596), (79, 2617), (85, 2710), (86, 2722), (88, 2755), (124, 2962), (148, 3154), (150, 3169), (153, 3196), (174, 3280), (175, 3286), (199, 3406), (207, 3430), (210, 3442), (219, 3469), (252, 3559), (256, 3574), (274, 3631), (297, 3712),

Gene: Shaka\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Shaka\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: SheldonCooper\_8 Start: 3929, Stop: 5410, Start Num: 26

Candidate Starts for SheldonCooper\_8:

(Start: 26 @3929 has 172 MA's), (Start: 42 @4007 has 2 MA's), (64, 4187), (85, 4346), (86, 4358), (132, 4607), (140, 4676), (157, 4790), (158, 4793), (176, 4862), (191, 4925), (212, 5048), (224, 5072), (265, 5210), (290, 5282), (300, 5303), (305, 5321),

Gene: ShortQueendom\_7 Start: 4019, Stop: 5446, Start Num: 28

Candidate Starts for ShortQueendom\_7:

(Start: 28 @4019 has 166 MA's), (Start: 36 @4067 has 4 MA's), (64, 4271), (80, 4343), (85, 4415), (132, 4670), (154, 4829), (160, 4856), (212, 5087), (229, 5120), (261, 5216), (277, 5270), (291, 5312), (306, 5363),

Gene: Shygu2\_8 Start: 3930, Stop: 5426, Start Num: 26

Candidate Starts for Shygu2\_8:

(Start: 26 @3930 has 172 MA's), (Start: 42 @4008 has 2 MA's), (53, 4065), (54, 4068), (64, 4182), (83, 4302), (85, 4341), (86, 4353), (132, 4602), (140, 4671), (157, 4785), (158, 4788), (191, 4920), (193, 4926), (212, 5043), (250, 5148), (263, 5196), (286, 5274), (309, 5361),

Gene: Sibs6\_10 Start: 4360, Stop: 5793, Start Num: 28

Candidate Starts for Sibs6\_10:

(Start: 28 @4360 has 166 MA's), (Start: 36 @4408 has 4 MA's), (48, 4462), (64, 4612), (83, 4714), (84, 4717), (85, 4756), (132, 5011), (154, 5170), (160, 5197), (212, 5428), (229, 5461), (261, 5557), (277, 5611), (291, 5653), (306, 5704),

Gene: SkiPole\_11 Start: 4757, Stop: 6169, Start Num: 28

Candidate Starts for SkiPole\_11:

(Start: 28 @4757 has 166 MA's), (Start: 36 @4805 has 4 MA's), (64, 5009), (80, 5081), (84, 5114), (85, 5153), (132, 5387), (154, 5546), (160, 5573), (212, 5804), (229, 5837), (277, 5987), (291, 6029), (306, 6080),

Gene: Skipitt\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Skipitt\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Slagathor\_9 Start: 4178, Stop: 5611, Start Num: 28

Candidate Starts for Slagathor\_9:

(Start: 28 @4178 has 166 MA's), (Start: 36 @4226 has 4 MA's), (64, 4430), (83, 4532), (84, 4535), (85, 4574), (132, 4829), (154, 4988), (160, 5015), (212, 5246), (229, 5279), (277, 5429), (291, 5471), (306, 5522),

Gene: Smairt\_10 Start: 5033, Stop: 6466, Start Num: 28

Candidate Starts for Smairt\_10:

(Start: 28 @5033 has 166 MA's), (Start: 36 @5081 has 4 MA's), (64, 5285), (80, 5357), (85, 5429), (132, 5684), (154, 5843), (160, 5870), (212, 6101), (229, 6134), (261, 6230), (277, 6284), (291, 6326), (306, 6377),

Gene: Smeagan\_11 Start: 5112, Stop: 6434, Start Num: 26

Candidate Starts for Smeagan\_11:

(Start: 26 @5112 has 172 MA's), (45, 5196), (48, 5214), (58, 5289), (75, 5430), (85, 5523), (86, 5535), (88, 5583), (121, 5679), (136, 5751), (145, 5799), (203, 6018), (212, 6051), (237, 6105), (250, 6156), (262, 6201), (265, 6219), (286, 6282), (309, 6369),

Gene: Smeagol\_10 Start: 5472, Stop: 6884, Start Num: 28

Candidate Starts for Smeagol\_10:

(Start: 28 @5472 has 166 MA's), (Start: 36 @5520 has 4 MA's), (64, 5724), (80, 5796), (84, 5829), (85, 5868), (132, 6102), (154, 6261), (160, 6288), (212, 6519), (229, 6552), (277, 6702), (291, 6744), (306, 6795),

Gene: SmellyB\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for SmellyB\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (58, 6019), (59, 6022), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (164, 6772), (168, 6784), (171, 6790), (191, 6853), (245, 7036),

Gene: Snazzy\_7 Start: 4064, Stop: 5476, Start Num: 28

Candidate Starts for Snazzy\_7:

(Start: 28 @4064 has 166 MA's), (Start: 36 @4112 has 4 MA's), (64, 4316), (80, 4388), (84, 4421), (85, 4460), (132, 4694), (154, 4853), (160, 4880), (212, 5111), (229, 5144), (261, 5240), (277, 5294), (291, 5336), (306, 5387),

Gene: Snenia\_26 Start: 24963, Stop: 26435, Start Num: 28

Candidate Starts for Snenia\_26:

(Start: 28 @24963 has 166 MA's), (Start: 36 @25011 has 4 MA's), (48, 25065), (52, 25095), (53, 25098), (58, 25140), (64, 25215), (85, 25359), (86, 25371), (132, 25599), (141, 25668), (158, 25785), (191, 25917), (193, 25923), (212, 26043), (229, 26076), (233, 26088), (250, 26148), (272, 26226), (314, 26391),

Gene: Solon\_9 Start: 5234, Stop: 6628, Start Num: 32

Candidate Starts for Solon\_9:

(21, 5192), (Start: 32 @5234 has 10 MA's), (47, 5312), (64, 5468), (84, 5573), (85, 5612), (132, 5846), (154, 6005), (212, 6263), (229, 6296), (261, 6392), (277, 6446), (291, 6488), (306, 6539),

Gene: Sorpresa\_9 Start: 4561, Stop: 5994, Start Num: 28

Candidate Starts for Sorpresa\_9:

(Start: 28 @4561 has 166 MA's), (Start: 36 @4609 has 4 MA's), (64, 4813), (83, 4915), (84, 4918), (85, 4957), (94, 5089), (132, 5212), (160, 5398), (212, 5629), (229, 5662), (261, 5758), (277, 5812), (291, 5854), (306, 5905),

Gene: Sparxx\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Sparxx\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: SpikeBT\_10 Start: 4981, Stop: 6429, Start Num: 20

Candidate Starts for SpikeBT\_10:

(16, 4972), (Start: 20 @4981 has 3 MA's), (Start: 25 @5008 has 52 MA's), (64, 5287), (73, 5329), (85, 5422), (94, 5524), (132, 5647), (154, 5806), (160, 5833), (212, 6064), (229, 6097), (277, 6247), (291, 6289), (306, 6340),

Gene: Spino\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Spino\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Squee\_9 Start: 4741, Stop: 6135, Start Num: 32

Candidate Starts for Squee\_9:

(21, 4699), (Start: 32 @4741 has 10 MA's), (47, 4819), (64, 4975), (84, 5080), (85, 5119), (132, 5353), (154, 5512), (160, 5539), (185, 5626), (212, 5770), (229, 5803), (277, 5953), (291, 5995), (302, 6031), (306, 6046),

Gene: Squint\_46 Start: 37628, Stop: 39016, Start Num: 25

Candidate Starts for Squint\_46:

(Start: 25 @37628 has 52 MA's), (Start: 36 @37679 has 4 MA's), (47, 37727), (62, 37850), (64, 37883), (70, 37916), (84, 37988), (85, 38027), (121, 38225), (123, 38237), (131, 38273), (132, 38288), (155, 38450), (160, 38474), (180, 38561), (212, 38741), (222, 38762), (271, 38894), (272, 38897), (277, 38912), (279, 38915), (301, 38981),

Gene: Stasia\_9 Start: 4345, Stop: 5856, Start Num: 26

Candidate Starts for Stasia\_9:

(13, 4282), (Start: 26 @4345 has 172 MA's), (53, 4480), (64, 4597), (83, 4717), (85, 4756), (86, 4768), (108, 4930), (132, 5017), (140, 5086), (157, 5200), (158, 5203), (191, 5335), (192, 5338), (193, 5341), (212, 5461), (233, 5506), (237, 5515), (250, 5566), (280, 5674), (286, 5692), (309, 5782), (311, 5794),

Gene: Steamy\_11 Start: 6228, Stop: 7583, Start Num: 31

Candidate Starts for Steamy\_11:

(Start: 29 @6219 has 2 MA's), (Start: 31 @6228 has 70 MA's), (48, 6327), (50, 6336), (64, 6477), (65, 6483), (77, 6537), (85, 6618), (86, 6630), (102, 6750), (103, 6756), (132, 6864), (134, 6894), (154, 7023), (158, 7041), (225, 7302), (248, 7359), (261, 7398),

Gene: StewieG\_8 Start: 4432, Stop: 5844, Start Num: 28

Candidate Starts for StewieG\_8:

(Start: 28 @4432 has 166 MA's), (Start: 36 @4480 has 4 MA's), (64, 4684), (80, 4756), (84, 4789), (85, 4828), (132, 5062), (154, 5221), (212, 5479), (229, 5512), (277, 5662), (291, 5704), (306, 5755),

Gene: Stink\_8 Start: 3925, Stop: 5397, Start Num: 26

Candidate Starts for Stink\_8:

(Start: 26 @3925 has 172 MA's), (64, 4177), (85, 4336), (86, 4348), (132, 4594), (140, 4663), (155, 4765), (157, 4777), (158, 4780), (191, 4912), (200, 4993), (204, 5005), (212, 5035), (224, 5059), (238, 5098), (265, 5197), (280, 5242), (287, 5263),

Gene: StrongArm\_8 Start: 4263, Stop: 5696, Start Num: 28

Candidate Starts for StrongArm\_8:

(Start: 28 @4263 has 166 MA's), (Start: 36 @4311 has 4 MA's), (64, 4515), (80, 4587), (85, 4659), (132, 4914), (154, 5073), (212, 5331), (229, 5364), (261, 5460), (277, 5514), (291, 5556), (302, 5592), (306, 5607),

Gene: Sumter\_8 Start: 4166, Stop: 5587, Start Num: 25

Candidate Starts for Sumter\_8:

(Start: 25 @4166 has 52 MA's), (64, 4445), (73, 4487), (85, 4580), (94, 4682), (132, 4805), (154, 4964), (160, 4991), (185, 5078), (212, 5222), (229, 5255), (261, 5351), (277, 5405), (291, 5447), (302, 5483), (306, 5498),

Gene: Sunshine924\_8 Start: 4137, Stop: 5570, Start Num: 28

Candidate Starts for Sunshine924\_8:

(Start: 28 @4137 has 166 MA's), (Start: 36 @4185 has 4 MA's), (64, 4389), (83, 4491), (84, 4494), (85, 4533), (94, 4665), (132, 4788), (154, 4947), (160, 4974), (212, 5205), (229, 5238), (277, 5388), (291, 5430), (306, 5481),

Gene: SuperAwesome\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for SuperAwesome\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: SuperCallie99\_13 Start: 5855, Stop: 7066, Start Num: 31

Candidate Starts for SuperCallie99\_13:

(Start: 31 @5855 has 70 MA's), (Start: 35 @5873 has 1 MA's), (59, 6023), (60, 6038), (66, 6134), (80, 6197), (85, 6281), (86, 6293), (88, 6326), (129, 6527), (155, 6746), (168, 6785), (171, 6791), (191, 6854),

Gene: Superphikiman\_47 Start: 37700, Stop: 39088, Start Num: 25

Candidate Starts for Superphikiman\_47:

(Start: 25 @37700 has 52 MA's), (Start: 36 @37751 has 4 MA's), (47, 37799), (62, 37922), (64, 37955), (70, 37988), (84, 38060), (85, 38099), (121, 38297), (123, 38309), (131, 38345), (132, 38360), (155, 38522), (160, 38546), (180, 38633), (212, 38813), (222, 38834), (271, 38966), (272, 38969), (277, 38984), (279, 38987), (301, 39053),

Gene: SwissCheese\_9 Start: 4599, Stop: 6032, Start Num: 28

Candidate Starts for SwissCheese\_9:

(Start: 28 @4599 has 166 MA's), (Start: 36 @4647 has 4 MA's), (64, 4851), (83, 4953), (84, 4956), (85, 4995), (94, 5127), (132, 5250), (154, 5409), (160, 5436), (212, 5667), (229, 5700), (277, 5850), (291, 5892), (306, 5943),

Gene: Switzer\_9 Start: 4184, Stop: 5617, Start Num: 28

Candidate Starts for Switzer\_9:

(Start: 28 @4184 has 166 MA's), (Start: 36 @4232 has 4 MA's), (48, 4286), (64, 4436), (83, 4538), (84, 4541), (85, 4580), (132, 4835), (154, 4994), (160, 5021), (185, 5108), (212, 5252), (229, 5285), (261, 5381), (277, 5435), (291, 5477), (302, 5513), (306, 5528),

Gene: Swole\_11 Start: 5068, Stop: 6501, Start Num: 28

Candidate Starts for Swole\_11:

(Start: 28 @5068 has 166 MA's), (Start: 36 @5116 has 4 MA's), (64, 5320), (83, 5422), (84, 5425), (85, 5464), (132, 5719), (154, 5878), (160, 5905), (212, 6136), (229, 6169), (261, 6265), (277, 6319), (291, 6361), (306, 6412),

Gene: TA17A\_48 Start: 40779, Stop: 42290, Start Num: 31

Candidate Starts for TA17A\_48:

(Start: 31 @40779 has 70 MA's), (Start: 34 @40791 has 37 MA's), (53, 40902), (62, 40998), (72, 41103), (80, 41133), (82, 41145), (84, 41178), (85, 41217), (86, 41229), (95, 41355), (99, 41364), (100, 41370), (107, 41388), (111, 41400), (113, 41403), (117, 41415), (119, 41421), (131, 41487), (143, 41619), (151, 41676), (155, 41706), (159, 41727), (172, 41775), (179, 41805), (186, 41835), (189, 41841), (199, 41907), (215, 41964), (241, 42021), (246, 42039), (247, 42042), (265, 42114), (268, 42123), (273, 42132), (299, 42216),

Gene: Taquarus\_8 Start: 3924, Stop: 5426, Start Num: 26

Candidate Starts for Taquarus\_8:

(Start: 26 @3924 has 172 MA's), (53, 4059), (64, 4176), (83, 4296), (85, 4335), (86, 4347), (127, 4554), (132, 4593), (157, 4776), (158, 4779), (191, 4911), (193, 4917), (212, 5037), (237, 5091), (250, 5142), (265, 5205), (275, 5238),

Gene: Target\_10 Start: 4856, Stop: 6289, Start Num: 28

Candidate Starts for Target\_10:

(Start: 28 @4856 has 166 MA's), (Start: 36 @4904 has 4 MA's), (64, 5108), (83, 5210), (84, 5213), (85, 5252), (132, 5507), (154, 5666), (160, 5693), (212, 5924), (229, 5957), (277, 6107), (291, 6149), (302, 6185), (306, 6200),

Gene: TarsusIV\_9 Start: 4687, Stop: 5979, Start Num: 26

Candidate Starts for TarsusIV\_9:

(Start: 26 @4687 has 172 MA's), (48, 4789), (69, 4972), (82, 5038), (85, 5080), (86, 5092), (88, 5140), (121, 5245), (136, 5317), (203, 5584), (212, 5617), (225, 5641), (236, 5665), (265, 5779), (268, 5788), (272, 5797), (287, 5845), (309, 5908), (313, 5941),

Gene: Tasp14\_10 Start: 4839, Stop: 6272, Start Num: 28

Candidate Starts for Tasp14\_10:

(Start: 28 @4839 has 166 MA's), (Start: 36 @4887 has 4 MA's), (64, 5091), (83, 5193), (84, 5196), (85, 5235), (132, 5490), (154, 5649), (160, 5676), (212, 5907), (229, 5940), (277, 6090), (291, 6132), (306, 6183),

Gene: Temprado\_14 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Temprado\_14:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Teodoridan\_7 Start: 3991, Stop: 5403, Start Num: 28

Candidate Starts for Teodoridan\_7:

(Start: 28 @3991 has 166 MA's), (Start: 36 @4039 has 4 MA's), (64, 4243), (80, 4315), (84, 4348), (85, 4387), (132, 4621), (154, 4780), (160, 4807), (212, 5038), (229, 5071), (277, 5221), (291, 5263), (306, 5314),

Gene: Thanksgivukkah\_8 Start: 3926, Stop: 5428, Start Num: 26

Candidate Starts for Thanksgivukkah\_8:

(Start: 26 @3926 has 172 MA's), (53, 4061), (64, 4178), (82, 4280), (83, 4298), (85, 4337), (86, 4349), (102, 4487), (127, 4556), (132, 4595), (157, 4778), (158, 4781), (191, 4913), (193, 4919), (212, 5039), (237, 5093), (250, 5144), (265, 5207), (275, 5240),

Gene: TheloniousMonk\_10 Start: 5059, Stop: 6516, Start Num: 25

Candidate Starts for TheloniousMonk\_10:

(16, 5023), (Start: 20 @5032 has 3 MA's), (Start: 25 @5059 has 52 MA's), (64, 5338), (73, 5380), (85, 5473), (94, 5575), (132, 5698), (154, 5857), (160, 5884), (178, 5959), (212, 6151), (229, 6184), (261, 6280), (277, 6334), (291, 6376), (306, 6427),

Gene: Thibault\_41 Start: 38285, Stop: 39661, Start Num: 25

Candidate Starts for Thibault\_41:

(Start: 25 @38285 has 52 MA's), (Start: 36 @38336 has 4 MA's), (Start: 42 @38363 has 2 MA's), (47, 38384), (64, 38540), (85, 38684), (94, 38819), (122, 38888), (132, 38942), (159, 39152), (165, 39179), (212, 39386), (222, 39407), (265, 39524), (270, 39536), (272, 39542), (277, 39557), (279, 39560), (290, 39587),

Gene: Thor\_9 Start: 4422, Stop: 5855, Start Num: 28

Candidate Starts for Thor\_9:

(Start: 28 @4422 has 166 MA's), (Start: 36 @4470 has 4 MA's), (64, 4674), (83, 4776), (84, 4779), (85, 4818), (132, 5073), (154, 5232), (160, 5259), (212, 5490), (229, 5523), (261, 5619), (277, 5673), (291, 5715), (306, 5766),

Gene: Timshel\_9 Start: 5547, Stop: 6899, Start Num: 26

Candidate Starts for Timshel\_9:

(23, 5532), (Start: 26 @5547 has 172 MA's), (52, 5685), (64, 5805), (85, 5967), (86, 5979), (88, 6027), (138, 6204), (139, 6225), (156, 6339), (157, 6345), (212, 6558), (265, 6699), (313, 6861), (318, 6882),

Gene: TinaFeyge\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for TinaFeyge\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),



Gene: Tinciduntolum\_48 Start: 40935, Stop: 42434, Start Num: 34

Candidate Starts for Tinciduntolum\_48:

(Start: 31 @40923 has 70 MA's), (Start: 34 @40935 has 37 MA's), (53, 41046), (62, 41142), (72, 41247), (80, 41277), (84, 41322), (85, 41361), (86, 41373), (95, 41499), (99, 41508), (100, 41514), (107, 41532), (111, 41544), (113, 41547), (117, 41559), (119, 41565), (131, 41631), (143, 41763), (151, 41820), (155, 41850), (159, 41871), (172, 41919), (179, 41949), (186, 41979), (189, 41985), (199, 42051), (215, 42108), (241, 42165), (246, 42183), (247, 42186), (265, 42258), (268, 42267), (273, 42276), (299, 42360),

Gene: Tinybot\_7 Start: 4009, Stop: 5412, Start Num: 42

Candidate Starts for Tinybot\_7:

(Start: 26 @3931 has 172 MA's), (Start: 42 @4009 has 2 MA's), (64, 4189), (85, 4348), (86, 4360), (132, 4609), (140, 4678), (157, 4792), (158, 4795), (176, 4864), (191, 4927), (212, 5050), (224, 5074), (265, 5212), (290, 5284), (300, 5305), (305, 5323),

Gene: TiroTheta9\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for TiroTheta9\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: ToneTone\_12 Start: 5764, Stop: 6978, Start Num: 31

Candidate Starts for ToneTone\_12:

(Start: 31 @5764 has 70 MA's), (Start: 35 @5782 has 1 MA's), (59, 5932), (66, 6043), (80, 6106), (85, 6190), (86, 6202), (88, 6235), (92, 6307), (99, 6325), (120, 6391), (129, 6439), (155, 6658), (164, 6685), (168, 6697), (171, 6703), (191, 6766), (245, 6949),

Gene: Topgun\_9 Start: 4348, Stop: 5760, Start Num: 28

Candidate Starts for Topgun\_9:

(Start: 28 @4348 has 166 MA's), (Start: 36 @4396 has 4 MA's), (64, 4600), (80, 4672), (84, 4705), (85, 4744), (132, 4978), (152, 5122), (154, 5137), (160, 5164), (212, 5395), (229, 5428), (277, 5578), (291, 5620), (306, 5671),

Gene: Tote\_11 Start: 5068, Stop: 6501, Start Num: 28

Candidate Starts for Tote\_11:

(Start: 28 @5068 has 166 MA's), (Start: 36 @5116 has 4 MA's), (64, 5320), (83, 5422), (84, 5425), (85, 5464), (132, 5719), (154, 5878), (160, 5905), (212, 6136), (229, 6169), (261, 6265), (277, 6319), (291, 6361), (306, 6412),

Gene: Traft412\_11 Start: 5255, Stop: 6688, Start Num: 28

Candidate Starts for Traft412\_11:

(Start: 28 @5255 has 166 MA's), (Start: 36 @5303 has 4 MA's), (64, 5507), (83, 5609), (84, 5612), (85, 5651), (132, 5906), (154, 6065), (160, 6092), (212, 6323), (229, 6356), (277, 6506), (291, 6548), (306, 6599),

Gene: Treddle\_10 Start: 5074, Stop: 6495, Start Num: 25

Candidate Starts for Treddle\_10:

(16, 5038), (Start: 20 @5047 has 3 MA's), (Start: 25 @5074 has 52 MA's), (64, 5353), (73, 5395), (85, 5488), (94, 5590), (132, 5713), (154, 5872), (160, 5899), (212, 6130), (229, 6163), (261, 6259), (277, 6313), (291, 6355), (306, 6406),

Gene: Tres\_47 Start: 40804, Stop: 42303, Start Num: 34

Candidate Starts for Tres\_47:

(Start: 31 @40792 has 70 MA's), (Start: 34 @40804 has 37 MA's), (53, 40915), (62, 41011), (72, 41116), (80, 41146), (84, 41191), (85, 41230), (86, 41242), (95, 41368), (99, 41377), (100, 41383), (107, 41401), (111, 41413), (113, 41416), (117, 41428), (119, 41434), (131, 41500), (143, 41632), (151, 41689), (155, 41719), (159, 41740), (172, 41788), (179, 41818), (186, 41848), (189, 41854), (199, 41920), (215, 41977), (241, 42034), (246, 42052), (247, 42055), (265, 42127), (268, 42136), (273, 42145), (299, 42229),

Gene: TriFive\_26 Start: 24962, Stop: 26434, Start Num: 28

Candidate Starts for TriFive\_26:

(Start: 28 @24962 has 166 MA's), (Start: 36 @25010 has 4 MA's), (48, 25064), (52, 25094), (53, 25097), (58, 25139), (64, 25214), (85, 25358), (86, 25370), (132, 25598), (141, 25667), (158, 25784), (191, 25916), (193, 25922), (212, 26042), (229, 26075), (233, 26087), (250, 26147), (272, 26225), (314, 26390),

Gene: Trike\_7 Start: 2276, Stop: 3772, Start Num: 31

Candidate Starts for Trike\_7:

(Start: 31 @2276 has 70 MA's), (Start: 35 @2294 has 1 MA's), (59, 2444), (66, 2555), (72, 2588), (79, 2609), (85, 2702), (86, 2714), (88, 2747), (124, 2954), (148, 3146), (150, 3161), (153, 3188), (174, 3272), (175, 3278), (199, 3398), (207, 3422), (210, 3434), (219, 3461), (252, 3551), (256, 3566), (274, 3623), (297, 3704),

Gene: Tripl3t\_10 Start: 5250, Stop: 6683, Start Num: 28

Candidate Starts for Tripl3t\_10:

(Start: 28 @5250 has 166 MA's), (Start: 36 @5298 has 4 MA's), (64, 5502), (83, 5604), (84, 5607), (85, 5646), (132, 5901), (154, 6060), (160, 6087), (212, 6318), (229, 6351), (277, 6501), (291, 6543), (306, 6594),

Gene: Tristan\_10 Start: 6216, Stop: 7721, Start Num: 26

Candidate Starts for Tristan\_10:

(Start: 26 @6216 has 172 MA's), (85, 6627), (86, 6639), (132, 6894), (140, 6963), (157, 7077), (158, 7080), (191, 7212), (212, 7335), (232, 7377), (250, 7440), (286, 7566), (309, 7656),

Gene: Trooper\_9 Start: 4486, Stop: 5796, Start Num: 26

Candidate Starts for Trooper\_9:

(Start: 26 @4486 has 172 MA's), (48, 4588), (69, 4771), (82, 4837), (85, 4879), (86, 4891), (88, 4939), (121, 5032), (136, 5104), (203, 5371), (212, 5404), (233, 5449), (250, 5509), (286, 5635), (311, 5737),

Gene: Trouble\_9 Start: 4899, Stop: 6332, Start Num: 28

Candidate Starts for Trouble\_9:

(Start: 28 @4899 has 166 MA's), (Start: 36 @4947 has 4 MA's), (64, 5151), (83, 5253), (84, 5256), (85, 5295), (94, 5427), (132, 5550), (154, 5709), (160, 5736), (212, 5967), (229, 6000), (277, 6150), (291, 6192), (306, 6243),

Gene: TroyPia\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for TroyPia\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (102, 4482), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Tucker\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for Tucker\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (59, 6022), (60, 6037), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (168, 6784), (171, 6790), (191, 6853),

Gene: Turbido\_11 Start: 5124, Stop: 6437, Start Num: 26

Candidate Starts for Turbido\_11:

(Start: 26 @5124 has 172 MA's), (45, 5208), (48, 5226), (58, 5301), (75, 5442), (85, 5535), (86, 5547), (88, 5595), (121, 5691), (136, 5763), (145, 5811), (202, 6027), (203, 6030), (212, 6063), (255, 6195), (309, 6363), (315, 6399),

Gene: Turj99\_8 Start: 4343, Stop: 5776, Start Num: 28

Candidate Starts for Turj99\_8:

(Start: 28 @4343 has 166 MA's), (Start: 36 @4391 has 4 MA's), (64, 4595), (83, 4697), (84, 4700), (85, 4739), (132, 4994), (154, 5153), (160, 5180), (212, 5411), (229, 5444), (277, 5594), (291, 5636), (306, 5687),

Gene: TwoPeat\_10 Start: 4861, Stop: 6294, Start Num: 28

Candidate Starts for TwoPeat\_10:

(Start: 28 @4861 has 166 MA's), (Start: 36 @4909 has 4 MA's), (64, 5113), (83, 5215), (84, 5218), (85, 5257), (132, 5512), (154, 5671), (160, 5698), (212, 5929), (229, 5962), (277, 6112), (291, 6154), (306, 6205),

Gene: TygerBlood\_8 Start: 3923, Stop: 5425, Start Num: 26

Candidate Starts for TygerBlood\_8:

(Start: 26 @3923 has 172 MA's), (53, 4058), (64, 4175), (83, 4295), (85, 4334), (86, 4346), (127, 4553), (132, 4592), (157, 4775), (158, 4778), (191, 4910), (193, 4916), (212, 5036), (237, 5090), (250, 5141), (265, 5204), (275, 5237),

Gene: U2\_8 Start: 4186, Stop: 5619, Start Num: 28

Candidate Starts for U2\_8:

(Start: 28 @4186 has 166 MA's), (Start: 36 @4234 has 4 MA's), (48, 4288), (64, 4438), (83, 4540), (84, 4543), (85, 4582), (132, 4837), (154, 4996), (160, 5023), (185, 5110), (212, 5254), (229, 5287), (261, 5383), (277, 5437), (291, 5479), (302, 5515), (306, 5530),

Gene: Ulysses\_7 Start: 3670, Stop: 5151, Start Num: 26

Candidate Starts for Ulysses\_7:

(13, 3607), (Start: 26 @3670 has 172 MA's), (Start: 42 @3748 has 2 MA's), (64, 3928), (85, 4087), (86, 4099), (132, 4348), (140, 4417), (157, 4531), (158, 4534), (191, 4666), (212, 4789), (224, 4813), (265, 4951), (290, 5023), (300, 5044), (305, 5062),

Gene: Vic9\_00046 Start: 41313, Stop: 42812, Start Num: 34

Candidate Starts for Vic9\_00046:

(Start: 31 @41301 has 70 MA's), (Start: 34 @41313 has 37 MA's), (47, 41385), (53, 41424), (62, 41520), (72, 41625), (80, 41655), (84, 41700), (85, 41739), (86, 41751), (95, 41877), (99, 41886), (100, 41892), (107, 41910), (111, 41922), (113, 41925), (117, 41937), (119, 41943), (131, 42009), (143, 42141), (151, 42198), (155, 42228), (159, 42249), (172, 42297), (179, 42327), (186, 42357), (189, 42363), (199, 42429), (215, 42486), (241, 42543), (246, 42561), (247, 42564), (265, 42636), (268, 42645), (273, 42654), (299, 42738),

Gene: Violet\_8 Start: 4156, Stop: 5568, Start Num: 28

Candidate Starts for Violet\_8:

(Start: 28 @4156 has 166 MA's), (Start: 36 @4204 has 4 MA's), (64, 4408), (80, 4480), (84, 4513), (85, 4552), (132, 4786), (154, 4945), (160, 4972), (212, 5203), (229, 5236), (277, 5386), (291, 5428), (306,

5479),

Gene: VohminGhazi\_13 Start: 5854, Stop: 7065, Start Num: 31

Candidate Starts for VohminGhazi\_13:

(Start: 31 @5854 has 70 MA's), (Start: 35 @5872 has 1 MA's), (58, 6019), (59, 6022), (66, 6133), (80, 6196), (85, 6280), (86, 6292), (88, 6325), (129, 6526), (155, 6745), (164, 6772), (168, 6784), (171, 6790), (191, 6853), (245, 7036),

Gene: Wander\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for Wander\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Watermelon\_11 Start: 5450, Stop: 6883, Start Num: 28

Candidate Starts for Watermelon\_11:

(Start: 28 @5450 has 166 MA's), (Start: 36 @5498 has 4 MA's), (64, 5702), (83, 5804), (84, 5807), (85, 5846), (132, 6101), (154, 6260), (160, 6287), (212, 6518), (229, 6551), (277, 6701), (291, 6743), (306, 6794),

Gene: Weiss13\_35 Start: 32290, Stop: 33759, Start Num: 34

Candidate Starts for Weiss13\_35:

(Start: 34 @32290 has 37 MA's), (41, 32332), (51, 32395), (62, 32497), (82, 32644), (83, 32662), (85, 32704), (86, 32716), (90, 32764), (109, 32860), (114, 32872), (116, 32881), (122, 32914), (132, 32968), (137, 33013), (155, 33172), (159, 33193), (160, 33196), (172, 33241), (178, 33271), (197, 33340), (198, 33355), (200, 33379), (212, 33424), (223, 33448), (253, 33535), (260, 33565), (270, 33598), (278, 33628), (293, 33670),

Gene: West99\_47 Start: 40924, Stop: 42423, Start Num: 34

Candidate Starts for West99\_47:

(Start: 31 @40912 has 70 MA's), (Start: 34 @40924 has 37 MA's), (53, 41035), (62, 41131), (72, 41236), (80, 41266), (84, 41311), (85, 41350), (86, 41362), (95, 41488), (99, 41497), (100, 41503), (107, 41521), (111, 41533), (113, 41536), (117, 41548), (119, 41554), (131, 41620), (143, 41752), (151, 41809), (155, 41839), (159, 41860), (172, 41908), (179, 41938), (186, 41968), (189, 41974), (199, 42040), (215, 42097), (241, 42154), (246, 42172), (247, 42175), (265, 42247), (268, 42256), (273, 42265), (299, 42349),

Gene: Whabigail7\_11 Start: 5127, Stop: 6449, Start Num: 26

Candidate Starts for Whabigail7\_11:

(Start: 26 @5127 has 172 MA's), (45, 5211), (48, 5229), (58, 5304), (75, 5445), (85, 5538), (86, 5550), (88, 5598), (121, 5694), (136, 5766), (145, 5814), (203, 6033), (212, 6066), (237, 6120), (250, 6171), (262, 6216), (265, 6234), (286, 6297),

Gene: Wheeler\_9 Start: 4616, Stop: 6049, Start Num: 28

Candidate Starts for Wheeler\_9:

(Start: 28 @4616 has 166 MA's), (Start: 36 @4664 has 4 MA's), (64, 4868), (83, 4970), (84, 4973), (85, 5012), (132, 5267), (154, 5426), (160, 5453), (212, 5684), (229, 5717), (261, 5813), (277, 5867), (291, 5909), (306, 5960),

Gene: Whirlwind\_27 Start: 24700, Stop: 26172, Start Num: 28

Candidate Starts for Whirlwind\_27:

(Start: 28 @24700 has 166 MA's), (Start: 36 @24748 has 4 MA's), (48, 24802), (53, 24835), (64, 24952), (82, 25036), (85, 25096), (86, 25108), (88, 25138), (132, 25336), (158, 25522), (191, 25654),

(192, 25657), (193, 25660), (212, 25780), (229, 25813), (250, 25885), (272, 25963), (314, 26128),

Gene: Wiks\_13 Start: 5832, Stop: 7046, Start Num: 31

Candidate Starts for Wiks\_13:

(Start: 31 @5832 has 70 MA's), (Start: 35 @5850 has 1 MA's), (58, 5997), (59, 6000), (66, 6111), (72, 6144), (80, 6174), (85, 6258), (86, 6270), (88, 6303), (92, 6375), (99, 6393), (120, 6459), (129, 6507), (155, 6726), (164, 6753), (168, 6765), (171, 6771), (191, 6834), (245, 7017),

Gene: Wilbur\_8 Start: 3920, Stop: 5422, Start Num: 26

Candidate Starts for Wilbur\_8:

(Start: 26 @3920 has 172 MA's), (53, 4055), (64, 4172), (83, 4292), (85, 4331), (86, 4343), (102, 4481), (127, 4550), (132, 4589), (157, 4772), (158, 4775), (191, 4907), (193, 4913), (212, 5033), (237, 5087), (250, 5138), (265, 5201), (275, 5234),

Gene: Wile\_8 Start: 3937, Stop: 5433, Start Num: 26

Candidate Starts for Wile\_8:

(Start: 26 @3937 has 172 MA's), (53, 4072), (58, 4114), (64, 4189), (82, 4291), (83, 4309), (85, 4348), (86, 4360), (132, 4609), (157, 4792), (158, 4795), (191, 4927), (192, 4930), (193, 4933), (200, 5008), (212, 5050), (250, 5155), (263, 5203), (280, 5263), (286, 5281), (304, 5347), (309, 5368),

Gene: Wilkins\_9 Start: 4348, Stop: 5760, Start Num: 28

Candidate Starts for Wilkins\_9:

(Start: 28 @4348 has 166 MA's), (Start: 36 @4396 has 4 MA's), (64, 4600), (80, 4672), (84, 4705), (85, 4744), (132, 4978), (152, 5122), (154, 5137), (160, 5164), (212, 5395), (229, 5428), (277, 5578), (291, 5620), (306, 5671),

Gene: Wizard007\_8 Start: 3923, Stop: 5425, Start Num: 26

Candidate Starts for Wizard007\_8:

(Start: 26 @3923 has 172 MA's), (53, 4058), (64, 4175), (82, 4277), (83, 4295), (85, 4334), (86, 4346), (102, 4484), (127, 4553), (132, 4592), (157, 4775), (158, 4778), (191, 4910), (193, 4916), (212, 5036), (237, 5090), (250, 5141), (265, 5204), (275, 5237),

Gene: WunderPhul\_13 Start: 5832, Stop: 7046, Start Num: 31

Candidate Starts for WunderPhul\_13:

(Start: 31 @5832 has 70 MA's), (Start: 35 @5850 has 1 MA's), (59, 6000), (66, 6111), (72, 6144), (80, 6174), (85, 6258), (86, 6270), (88, 6303), (92, 6375), (99, 6393), (120, 6459), (129, 6507), (155, 6726), (164, 6753), (168, 6765), (171, 6771), (191, 6834), (245, 7017),

Gene: Xena\_8 Start: 3936, Stop: 5432, Start Num: 26

Candidate Starts for Xena\_8:

(Start: 26 @3936 has 172 MA's), (53, 4071), (58, 4113), (64, 4188), (82, 4290), (83, 4308), (85, 4347), (86, 4359), (132, 4608), (157, 4791), (158, 4794), (191, 4926), (192, 4929), (193, 4932), (200, 5007), (212, 5049), (250, 5154), (263, 5202), (280, 5262), (286, 5280), (304, 5346), (309, 5367),

Gene: XianYue\_9 Start: 4609, Stop: 5916, Start Num: 26

Candidate Starts for XianYue\_9:

(Start: 26 @4609 has 172 MA's), (48, 4714), (69, 4897), (82, 4963), (85, 5005), (86, 5017), (88, 5065), (106, 5137), (203, 5488), (212, 5521), (237, 5575), (250, 5626), (260, 5668), (263, 5674), (286, 5752), (309, 5842), (311, 5854),

Gene: Yelo\_35 Start: 32583, Stop: 34052, Start Num: 34

Candidate Starts for Yelo\_35:

(Start: 34 @32583 has 37 MA's), (41, 32625), (51, 32688), (62, 32790), (82, 32937), (83, 32955), (85, 32997), (86, 33009), (90, 33057), (109, 33153), (114, 33165), (116, 33174), (122, 33207), (132, 33261), (137, 33306), (155, 33465), (159, 33486), (160, 33489), (172, 33534), (178, 33564), (197, 33633), (198, 33648), (200, 33672), (212, 33717), (223, 33741), (253, 33828), (260, 33858), (270, 33891), (278, 33921), (293, 33963),

Gene: YoSam321\_8 Start: 3921, Stop: 5423, Start Num: 26

Candidate Starts for YoSam321\_8:

(Start: 26 @3921 has 172 MA's), (53, 4056), (64, 4173), (82, 4275), (83, 4293), (85, 4332), (86, 4344), (127, 4551), (132, 4590), (157, 4773), (158, 4776), (191, 4908), (193, 4914), (212, 5034), (237, 5088), (250, 5139), (265, 5202), (275, 5235),

Gene: Yokurt\_13 Start: 5832, Stop: 7046, Start Num: 31

Candidate Starts for Yokurt\_13:

(Start: 31 @5832 has 70 MA's), (Start: 35 @5850 has 1 MA's), (59, 6000), (66, 6111), (72, 6144), (80, 6174), (85, 6258), (86, 6270), (88, 6303), (92, 6375), (99, 6393), (120, 6459), (129, 6507), (155, 6726), (164, 6753), (168, 6765), (171, 6771), (191, 6834), (245, 7017),

Gene: Zaka\_13 Start: 5832, Stop: 7046, Start Num: 31

Candidate Starts for Zaka\_13:

(Start: 31 @5832 has 70 MA's), (Start: 35 @5850 has 1 MA's), (59, 6000), (66, 6111), (72, 6144), (80, 6174), (85, 6258), (86, 6270), (88, 6303), (92, 6375), (99, 6393), (120, 6459), (129, 6507), (155, 6726), (164, 6753), (168, 6765), (171, 6771), (191, 6834), (245, 7017),

Gene: Zeeculate\_8 Start: 4311, Stop: 5744, Start Num: 28

Candidate Starts for Zeeculate\_8:

(Start: 28 @4311 has 166 MA's), (Start: 36 @4359 has 4 MA's), (64, 4563), (83, 4665), (84, 4668), (85, 4707), (132, 4962), (154, 5121), (160, 5148), (212, 5379), (229, 5412), (261, 5508), (277, 5562), (291, 5604), (302, 5640), (306, 5655),

Gene: Zenon\_36 Start: 32602, Stop: 34071, Start Num: 34

Candidate Starts for Zenon\_36:

(Start: 34 @32602 has 37 MA's), (41, 32644), (51, 32707), (62, 32809), (82, 32956), (83, 32974), (85, 33016), (86, 33028), (90, 33076), (109, 33172), (114, 33184), (116, 33193), (122, 33226), (132, 33280), (137, 33325), (155, 33484), (159, 33505), (160, 33508), (172, 33553), (178, 33583), (197, 33652), (198, 33667), (200, 33691), (212, 33736), (223, 33760), (253, 33847), (260, 33877), (262, 33880), (270, 33910), (278, 33940), (293, 33982),

Gene: Zenteno07\_51 Start: 39992, Stop: 41485, Start Num: 31

Candidate Starts for Zenteno07\_51:

(2, 39143), (3, 39170), (6, 39530), (8, 39560), (9, 39617), (15, 39938), (Start: 31 @39992 has 70 MA's), (Start: 34 @40004 has 37 MA's), (56, 40136), (58, 40157), (59, 40160), (68, 40280), (80, 40346), (83, 40376), (85, 40418), (86, 40430), (88, 40469), (95, 40559), (107, 40613), (108, 40616), (119, 40655), (132, 40736), (143, 40853), (149, 40883), (159, 40961), (169, 41000), (172, 41009), (178, 41039), (215, 41198), (245, 41267), (296, 41432), (308, 41474),

Gene: Zephyr\_9 Start: 4464, Stop: 5885, Start Num: 25

Candidate Starts for Zephyr\_9:

(Start: 25 @4464 has 52 MA's), (64, 4743), (73, 4785), (85, 4878), (94, 4980), (132, 5103), (154, 5262), (160, 5289), (212, 5520), (229, 5553), (261, 5649), (277, 5703), (291, 5745), (306, 5796),

Gene: Zeuska\_9 Start: 4959, Stop: 6347, Start Num: 32

Candidate Starts for Zeuska\_9:

(21, 4917), (Start: 32 @4959 has 10 MA's), (47, 5037), (64, 5193), (84, 5298), (85, 5337), (132, 5571), (154, 5730), (160, 5757), (212, 5988), (229, 6021), (277, 6171), (291, 6213), (306, 6264), (316, 6324),

Gene: Zimmer\_11 Start: 6242, Stop: 7636, Start Num: 31

Candidate Starts for Zimmer\_11:

(Start: 31 @6242 has 70 MA's), (40, 6296), (47, 6332), (48, 6338), (50, 6347), (53, 6371), (64, 6488), (77, 6548), (85, 6629), (86, 6641), (103, 6767), (123, 6824), (132, 6875), (155, 7037), (162, 7070), (177, 7124), (195, 7187), (213, 7295), (265, 7436), (267, 7439), (287, 7502), (298, 7541), (317, 7622),

Gene: Zulu\_13 Start: 5849, Stop: 7045, Start Num: 35

Candidate Starts for Zulu\_13:

(Start: 31 @5831 has 70 MA's), (Start: 35 @5849 has 1 MA's), (59, 5999), (66, 6110), (72, 6143), (80, 6173), (85, 6257), (86, 6269), (88, 6302), (92, 6374), (99, 6392), (120, 6458), (129, 6506), (155, 6725), (164, 6752), (168, 6764), (171, 6770), (191, 6833), (245, 7016),