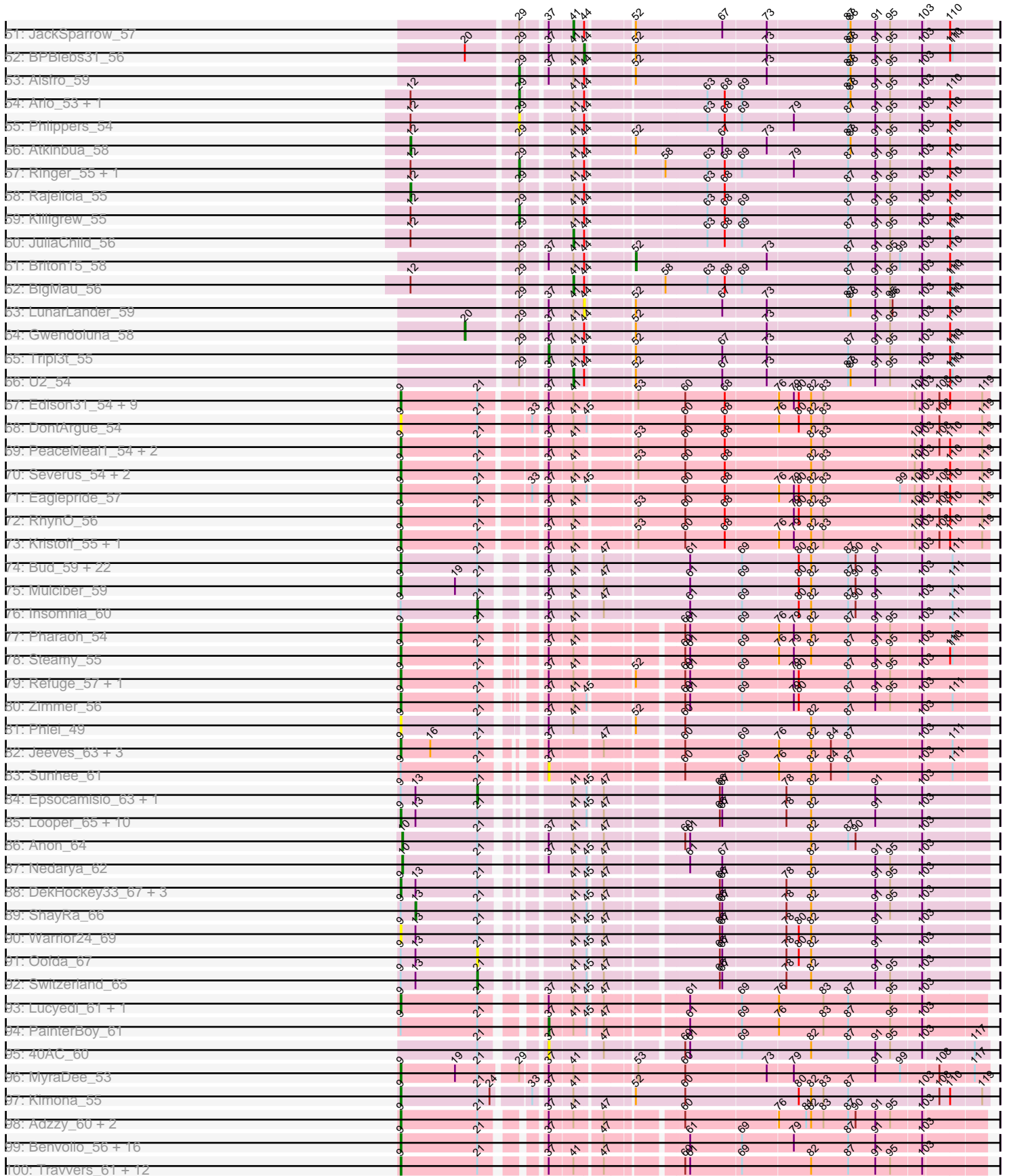


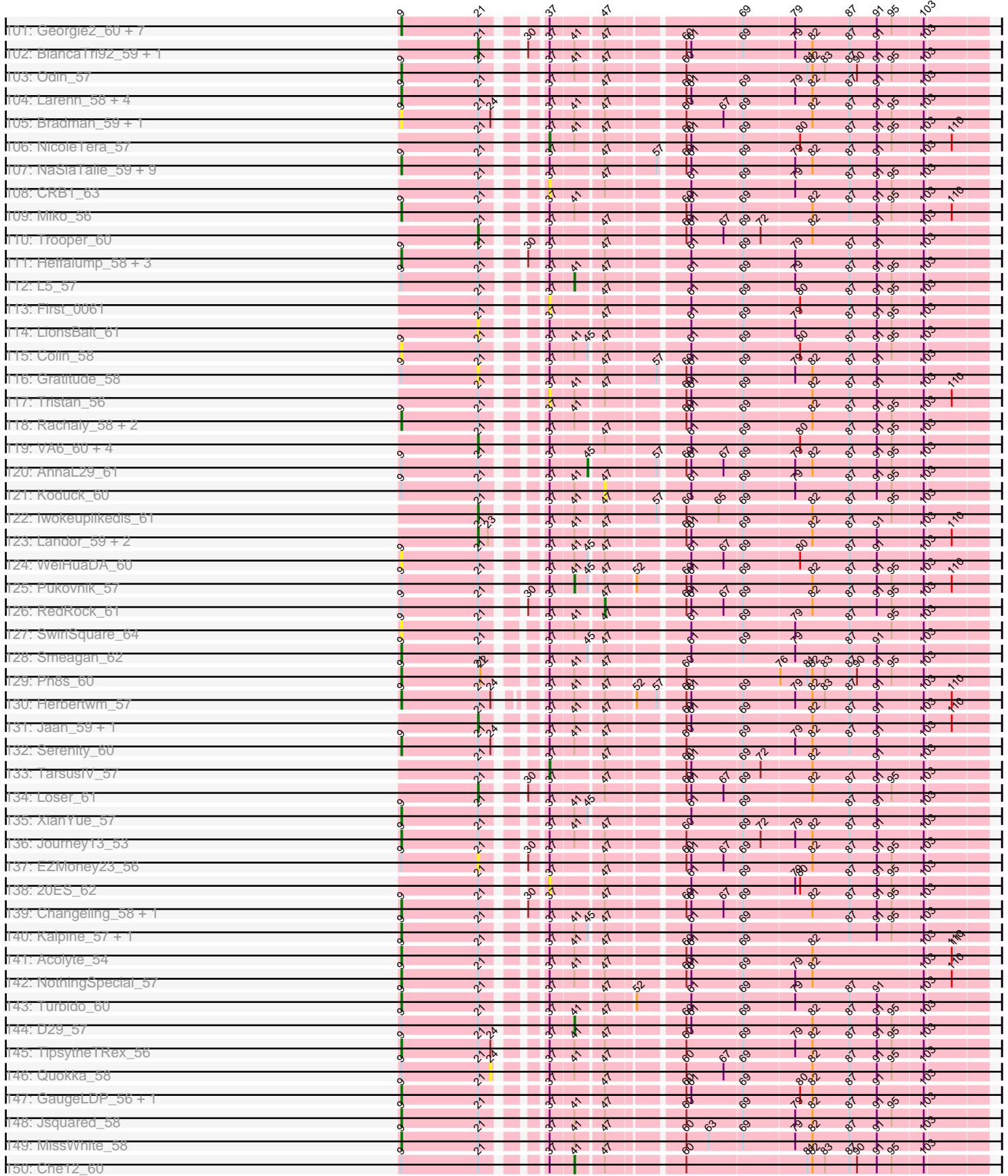
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|                          | 9  | 21 | 31 | 40 | 50 | 60 | 69 | 76 | 82 | 87 | 95 | 103 | 110 |
|--------------------------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|
| 1: Chargerpower_57       | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 2: Jerm2_56 + 2          |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 3: Greg_56 + 10          | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 4: MrGordo_54 + 4        |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 5: Trouble_57 + 3        |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 6: Jasper_56             | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 7: PSullivan_55 + 2      |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 8: Seabiscuit_57 + 30    | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 9: Conceptii_57 + 3      |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 10: DD5_54 + 1           |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 11: Buttons_53           |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 12: SarFire_52 + 24      |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 13: Dussy_56 + 5         |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 14: Wheeler_55 + 2       | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 15: Jorgensen_55         |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 16: CactusRose_52 + 3    |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 17: Violet_53 + 11       |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 18: Dexes_55             |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 19: Marge_54             |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 20: PinkPlastic_55       |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 21: Fenn_57              |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 22: Magnito_53 + 2       |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 23: Blue_54 + 2          |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 24: GMonster_52 + 11     |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 25: ShortQueendom_49 + 3 | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 26: Tote_51 + 3          |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 27: Dynamix_56 + 6       |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 28: Bxb1_50              |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 29: Marsna_54            | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 30: Niza_57              |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 31: Euphoria_52 + 5      | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 32: Ciao_54              |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 33: SkipPole_59          |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 34: PherisBuelter_54 + 2 |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 35: Homines_47           |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 36: iLeeKay_58           |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 37: Norz_56 + 1          |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 38: Eyeball_56           |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 39: Zephyr_55 + 2        |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 40: StrongArm_53 + 1     | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 41: Arcanine_56          |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 42: Rutnerferd_56 + 8    |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 43: iQorha_51 + 4        |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 44: Naira_57 + 1         | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 45: NEHalo_53            |    | 70 | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 46: Sagefire_57          |    |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 47: GrecoEtereo_55       | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 48: Museum_56            | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 49: Betmenem_55 + 1      | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |
| 50: Siagathor_57         | 72 |    | 79 | 79 | 82 | 88 | 89 | 76 | 82 | 87 | 95 | 103 | 110 |

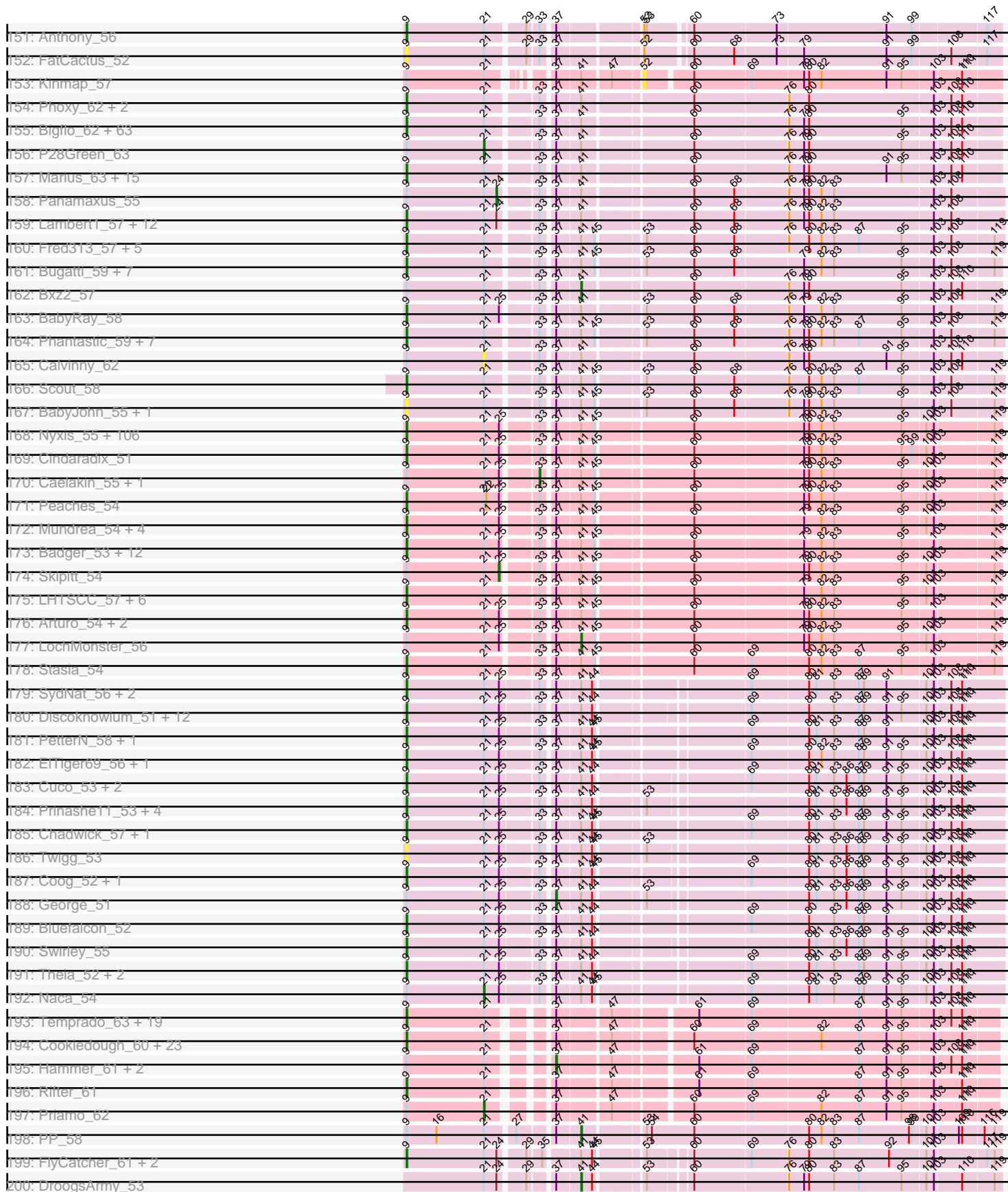
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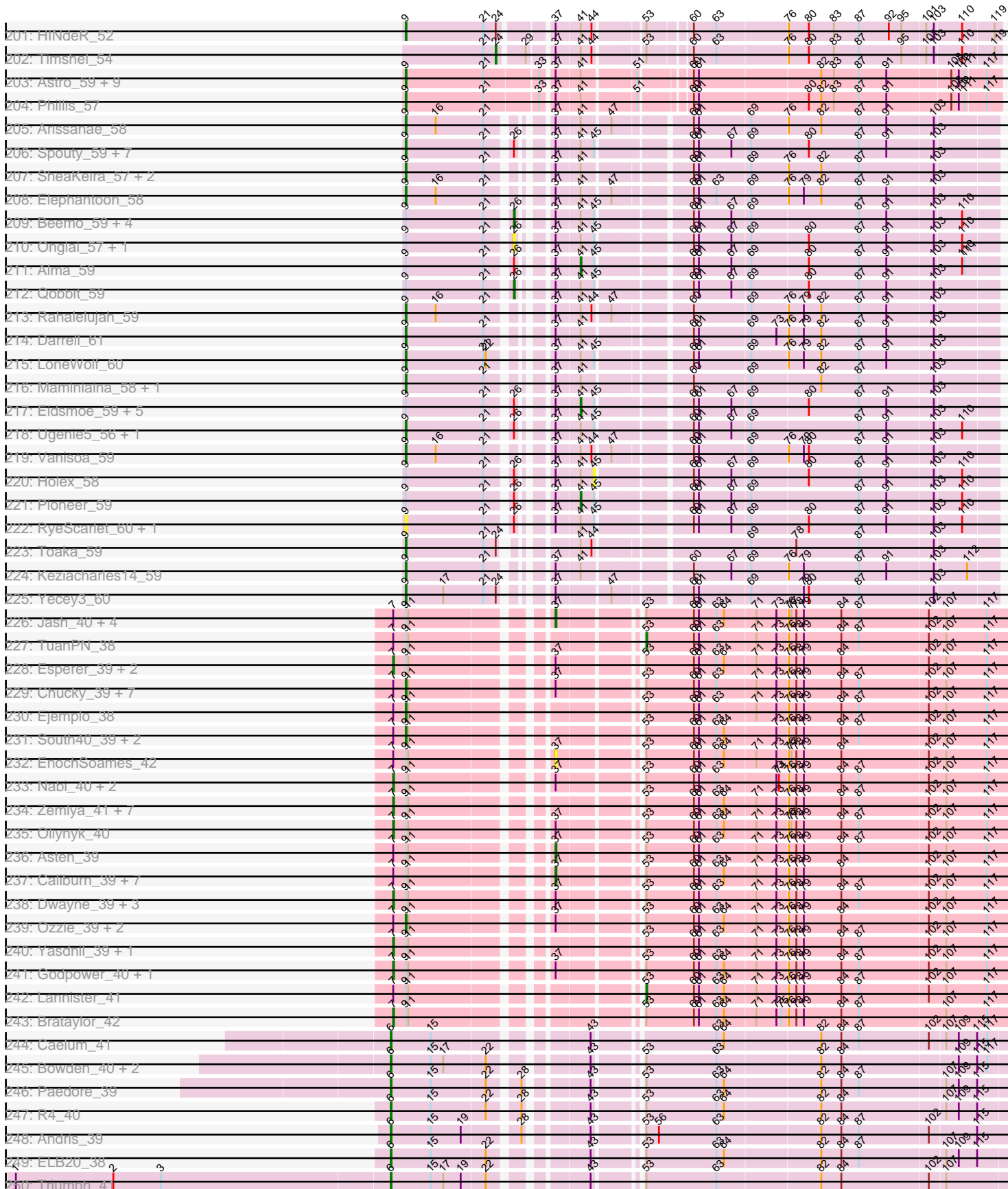
# Pham 219230



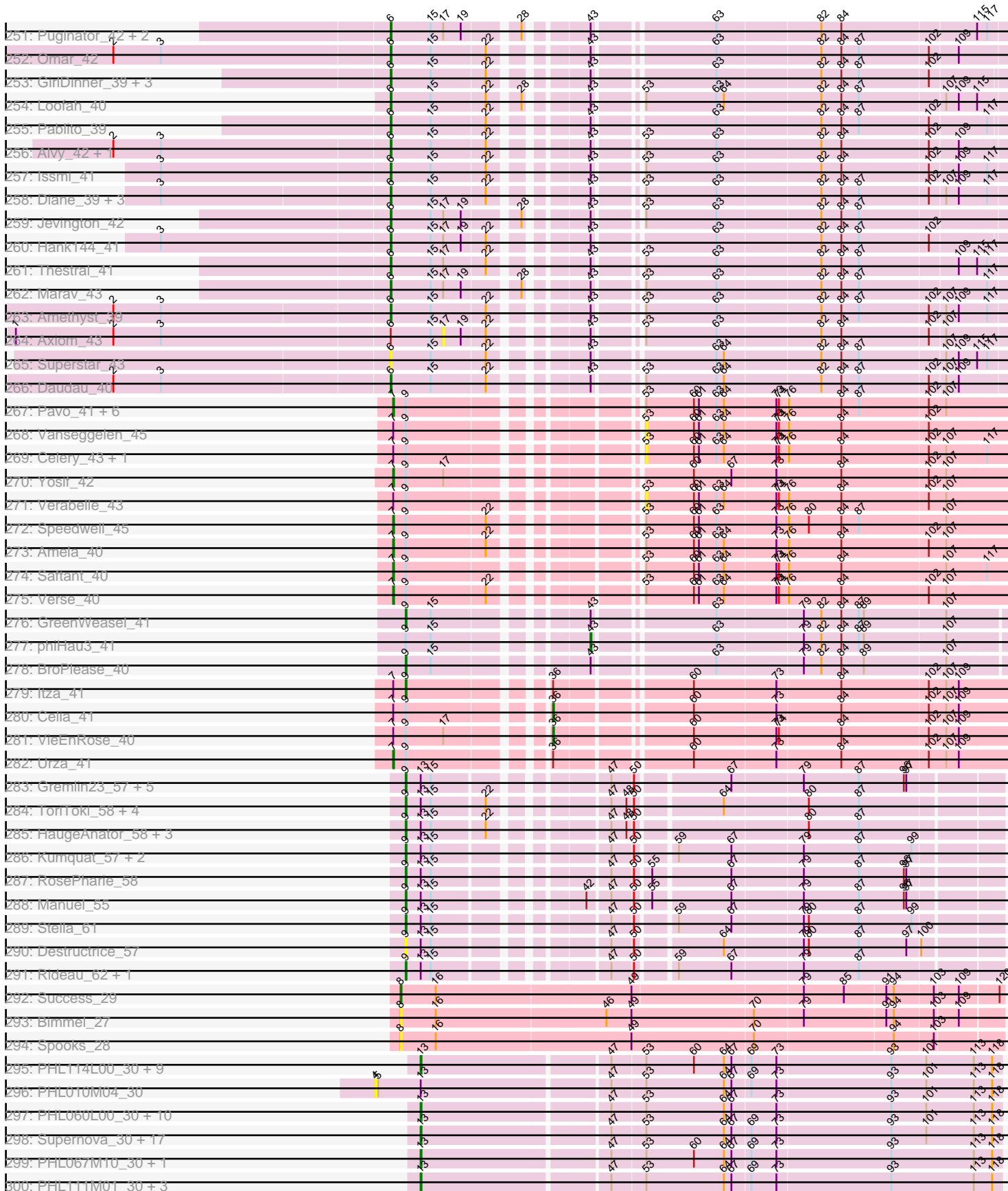
Pham 219230



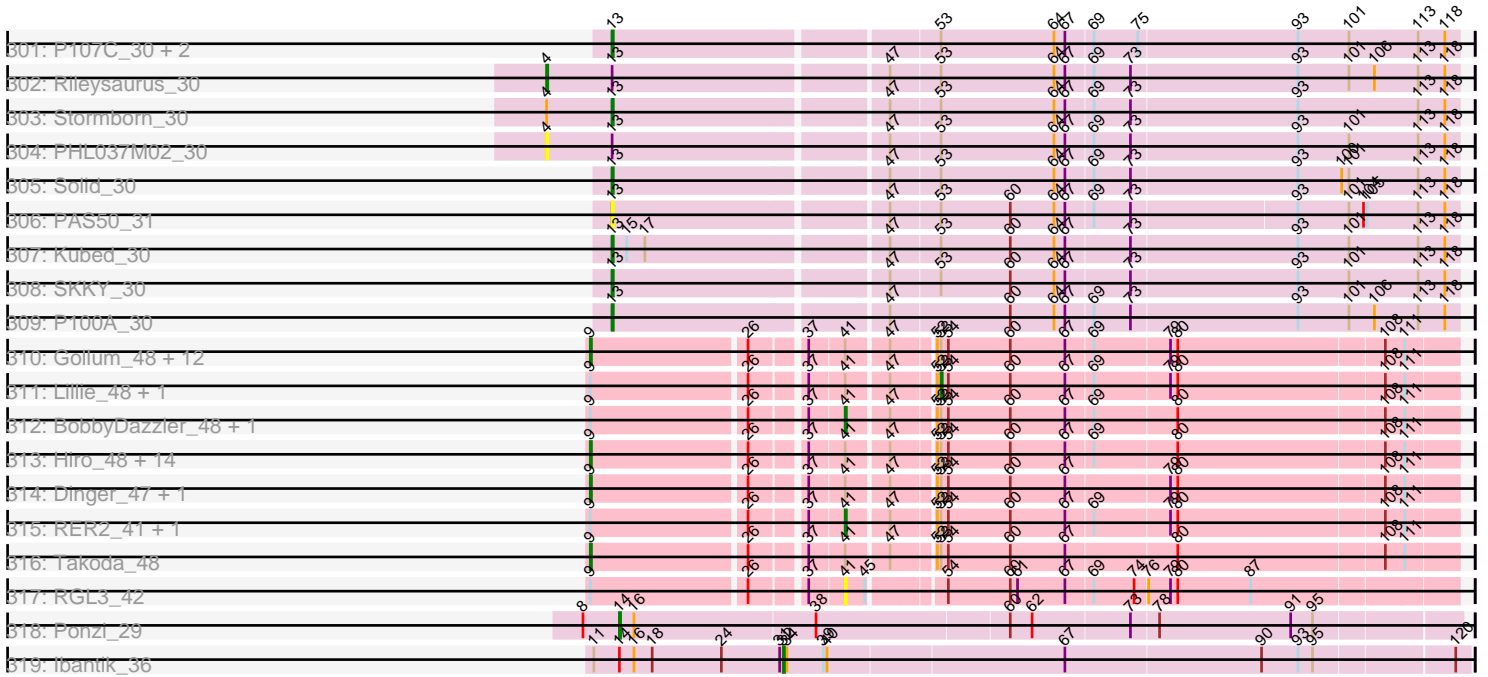
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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 219230 Report

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

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

Pham number 219230 has 1084 members, 114 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_57
- Track 2 : Jerm2\_56, Rohr\_56, HermioneGrange\_55
- Track 3 : Greg\_56, Sorpresa\_53, Sandaddy\_53, Pippin\_56, Froghopper\_52, Fajezeel\_56, Doom\_53, Hami1\_48, Pinto\_55, Ajay\_56, Alvin\_54
- Track 4 : MrGordo\_54, Burton\_55, Gandalf20\_57, Big3\_54, Espresso\_54
- Track 5 : Trouble\_57, BigPaolini\_54, Mkhusei\_53, Petruccio\_54
- Track 6 : Jasper\_56
- Track 7 : PSullivan\_55, Pita2\_58, KBG\_55
- Track 8 : Seabiscuit\_57, Licorice\_57, SwissCheese\_56, Monet\_57, Nerujay\_57, Altman\_58, Francis47\_53, Gompeii16\_53, PacerPaul\_54, Marchy\_49, Bircsak\_53, Beatrix\_54, StewieG\_53, McSinger\_55, PascalRango\_55, Payneful\_54, Agaliana\_50, Edtherson\_54, Hermia\_55, DreamCatcher\_58, IgnatiusPatJac\_55, McGuire\_56, Treddle\_55, Moose\_54, Kanely\_57, HarryOW\_54, Forsytheast\_54, Dulcie\_55, Parliament\_54, Applejack\_49, BluSpix\_53
- Track 9 : ConceptII\_57, Raid\_55, GageAP\_55, AFIS\_52
- Track 10 : DD5\_54, Lockley\_53
- Track 11 : Buttons\_53
- Track 12 : SarFire\_52, Barriga\_55, A6\_50, Papez\_57, Bruns\_54, MetalQZJ\_53, ProMouse\_56, Corvo\_55, Levia\_51, MaryBeth\_54, BK1\_50, Hope4ever\_56, Smeagol\_57, Tasp14\_56, PhineBark\_55, Rhynn\_53, Crispicous1\_52, Teodoridan\_53, Lamina13\_55, STLscum\_57, Nhonho\_54, Zeeculate\_53, BarrowTuph\_55, Pepe\_51, Thor\_52
- Track 13 : Dussy\_56, Bigchung\_55, Ichabod\_58, Abbysshoes\_57, Paraselene\_52, Sumter\_51
- Track 14 : Wheeler\_55, HanShotFirst\_55, Sanya\_52
- Track 15 : Jorgensen\_55
- Track 16 : CactusRose\_52, Mryolo\_52, Marcell\_52, QTRlifeCrisis\_54
- Track 17 : Violet\_53, MPlant7149\_53, Kykar\_54, Abrogate\_540, DrFeelGood\_52, Rufus\_56, Pari\_57, Rubeus\_55, Sibs6\_57, Molly\_56, Bob3\_53, Acme\_56
- Track 18 : Dexes\_55
- Track 19 : Marge\_54
- Track 20 : PinkPlastic\_55
- Track 21 : Fenn\_57



- Track 22 : Magnito\_53, Carlyle\_53, Lesedi\_51
- Track 23 : Blue\_54, Kugel\_55, BaconJack\_57
- Track 24 : GMonster\_52, Makemake\_55, Kenmech\_58, EnzoK\_55, Target\_55, Gyzlar\_51, LilBib\_55, Marco3\_58, Paphu\_53, Snazzy\_54, Peterson\_59, Pelly\_55
- Track 25 : ShortQueendom\_49, Perseus\_55, RidgeCB\_54, Seanderson\_56
- Track 26 : Tote\_51, PattyP\_55, Chanagan\_51, Swole\_56
- Track 27 : Dynamix\_56, Wilkins\_54, Graduation\_58, BeesKnees\_57, Topgun\_54, Oogway\_54, Cueyllyss\_56
- Track 28 : Bxb1\_50
- Track 29 : Marsha\_54
- Track 30 : Niza\_57
- Track 31 : Euphoria\_52, Watermelon\_55, Manatee\_56, Ohno789\_56, Lopton\_55, Anglerfish\_56
- Track 32 : Ciao\_54
- Track 33 : SkiPole\_59
- Track 34 : PherrisBueller\_54, Dreamboat\_56, Scowl\_55
- Track 35 : Homines\_47
- Track 36 : lLeeKay\_58
- Track 37 : Norz\_56, Sunshine924\_56
- Track 38 : Eyeball\_56
- Track 39 : Zephyr\_55, TheloniousMonk\_55, Magnar\_54
- Track 40 : StrongArm\_53, Bexan\_52
- Track 41 : Arcanine\_56
- Track 42 : Rutherford\_56, Solon\_53, Adahisdi\_55, JC27\_57, Smairt\_57, Mule\_52, Ashballer\_57, Aeneas\_57, PhrostyMug\_54
- Track 43 : Iqorha\_51, KyMonks1A\_57, Zeuska\_53, Inyanga\_51, Traft412\_57
- Track 44 : Naira\_57, Squee\_55
- Track 45 : NEHalo\_53
- Track 46 : Sagefire\_57
- Track 47 : GrecoEtereo\_55
- Track 48 : Museum\_56
- Track 49 : Bethlehem\_55, KSSJEB\_54
- Track 50 : Slagathor\_57
- Track 51 : JackSparrow\_57
- Track 52 : BPBiebs31\_56
- Track 53 : Alsfro\_59
- Track 54 : Arlo\_53, TwoPeat\_56
- Track 55 : Phlippers\_54
- Track 56 : Atkinbua\_58
- Track 57 : Ringer\_55, SpikeBT\_54
- Track 58 : Rajelicia\_55
- Track 59 : Killigrew\_55
- Track 60 : JuliaChild\_56
- Track 61 : Briton15\_58
- Track 62 : BigMau\_56
- Track 63 : LunarLander\_59
- Track 64 : Gwendoluna\_58
- Track 65 : Tripl3t\_55
- Track 66 : U2\_54
- Track 67 : Edison31\_54, Goose\_56, Rowdy\_59, Shapes\_59, Chupacabra\_54, Topanga\_53, Twister\_54, DustyMartin\_59, OKCentral2016\_55, WalterMcMickey\_54
- Track 68 : DontArgue\_54
- Track 69 : PeaceMeal1\_54, Drake94\_54, Poompha\_54

- Track 70 : Severus\_54, KittenMittens\_53, Trike\_54
- Track 71 : Eaglepride\_57
- Track 72 : RhynO\_56
- Track 73 : Kristoff\_55, Rebeuca\_56
- Track 74 : Bud\_59, Jabith\_60, Hutc2\_59, MaCh\_60, Flaverint\_60, Salz\_58, Orange\_59, TinyTimmy\_59, Bachome\_61, Et2Brutus\_58, Ebony\_59, Fibonacci\_59, Bowtie\_60, Joselito\_60, Sham4\_59, Snape\_59, Mabel\_59, Munch\_60, Gilberta\_60, Timothy\_59, Aneem\_60, Petersenfast\_58, Lucivia\_60
- Track 75 : Mulciber\_59
- Track 76 : Insomnia\_60
- Track 77 : Pharaoh\_54
- Track 78 : Steamy\_55
- Track 79 : Refuge\_57, DARTHPhader\_56
- Track 80 : Zimmer\_56
- Track 81 : Phlei\_49
- Track 82 : Jeeves\_63, Gail\_62, Luchador\_62, SororFago\_60
- Track 83 : Sunhee\_61
- Track 84 : Epsocamisio\_63, Battleship\_68
- Track 85 : Looper\_65, Boohoo\_66, Waits\_66, MinecraftSteve\_66, KatherineG\_66, JSwag\_65, Nebulosus\_64, Remus\_66, Strosahl\_66, Rosalind\_64, Anaysia\_66
- Track 86 : Anon\_64
- Track 87 : Nedarya\_62
- Track 88 : DekHockey33\_67, Soups\_66, ReMo\_64, LastResort\_64
- Track 89 : ShayRa\_66
- Track 90 : Warrior24\_69
- Track 91 : Oofda\_67
- Track 92 : Switzerland\_65
- Track 93 : Lucyedi\_61, EagleEye\_62
- Track 94 : PainterBoy\_61
- Track 95 : 40AC\_60
- Track 96 : MyraDee\_53
- Track 97 : Kimona\_55
- Track 98 : Adzzy\_60, Caraxes\_59, Superchunk\_57
- Track 99 : Benvolio\_56, EvilGenius\_61, Echild\_59, ChipMunk\_61, Dalmatian\_60, Anselm\_60, Agape74\_61, AbbyPaige\_61, Retro23\_60, Whabigail7\_60, Buggy\_61, KingCyrus\_61, Dignity\_61, Jerm\_61, Leviathan\_61, DudeLittle\_58, LilTurb\_60
- Track 100 : Travvers\_61, Duplo\_61, Kerberos\_61, DBQu4n\_61, StarStuff\_61, Pomar16\_61, C3\_57, D32\_60, Naji\_61, VC3\_62, AN9\_62, Tomathan\_61, ANI8\_62
- Track 101 : Georgie2\_60, FiringLine\_59, Power\_58, SemperFi\_60, SweetiePie\_59, SnapTap\_59, Crucio\_59, QueenBeesly\_59
- Track 102 : BiancaTri92\_59, Leogania\_59
- Track 103 : Odin\_57
- Track 104 : Larenn\_58, HarryHoudini\_60, Piro94\_59, Malec\_59, Drake55\_61
- Track 105 : Bradman\_59, MajorMajor\_59
- Track 106 : NicoleTera\_57
- Track 107 : NaSiaTalie\_59, Updawg\_60, Sknot\_60, Equemioh13\_60, MiculUcigas\_59, WideWale\_60, Centaur\_60, Baehexic\_58, Terrific\_61, Flare16\_59
- Track 108 : CRB1\_63
- Track 109 : Miko\_56
- Track 110 : Trooper\_60
- Track 111 : Heffalump\_58, QueenB2\_58, Fameo\_59, JoshKayV\_61
- Track 112 : L5\_57
- Track 113 : First\_0061

- Track 114 : LionsBait\_61
- Track 115 : Colin\_58
- Track 116 : Gratitude\_58
- Track 117 : Tristan\_56
- Track 118 : Rachaly\_58, BobSwaget\_55, Lökk\_56
- Track 119 : VA6\_60, AN3\_62, LadyBird\_64, BengiVuitton\_60, Deloris\_60
- Track 120 : AnnaL29\_61
- Track 121 : Koduck\_60
- Track 122 : Iwokeuplikedis\_61
- Track 123 : Landor\_59, Bactobuster\_57, Phaded\_59
- Track 124 : WeiHuaDA\_60
- Track 125 : Pukovnik\_57
- Track 126 : RedRock\_61
- Track 127 : SwirlSquare\_64
- Track 128 : Smeagan\_62
- Track 129 : Ph8s\_60
- Track 130 : Herbertwm\_57
- Track 131 : Jaan\_59, IronMan\_58
- Track 132 : Serenity\_60
- Track 133 : TarsusIV\_57
- Track 134 : Loser\_61
- Track 135 : XianYue\_57
- Track 136 : Journey13\_53
- Track 137 : EZMoney23\_56
- Track 138 : 20ES\_62
- Track 139 : Changeling\_58, ArcherNM\_54
- Track 140 : Kalpine\_57, Trixie\_57
- Track 141 : Acolyte\_54
- Track 142 : NothingSpecial\_57
- Track 143 : Turbido\_60
- Track 144 : D29\_57
- Track 145 : TopsytheTRex\_56
- Track 146 : Quokka\_58
- Track 147 : GaugeLDP\_56, BabyBack\_57
- Track 148 : Jsquared\_58
- Track 149 : MissWhite\_58
- Track 150 : Che12\_60
- Track 151 : Anthony\_56
- Track 152 : FatCactus\_52
- Track 153 : Kinmap\_57
- Track 154 : Phoxy\_62, Spike509\_62, Louie6\_61
- Track 155 : Bigflo\_62, Hercules11\_62, SoilDragon\_62, Fernando\_62, Sabia\_62, Jobu08\_60, Lilith\_62, MadMarie\_62, TinyPebbles\_61, Grub\_62, HashRod\_63, Beauxregard13\_62, Sabinator\_61, Wooldri\_64, LBerry\_63, LarryKay\_62, Ollie\_62, PGHhamlin\_64, JenCasNa\_63, AgronaGT15\_61, Vix\_61, Penny1\_63, DaHudson\_62, BreSam8\_62, MoneyMay\_62, KADY\_62, Methuselah\_57, Marie\_61, BuzzBuzz\_59, EpicPhail\_63, Dieselweasel\_63, Anubis\_65, Aglet\_63, Daishi\_61, Malinsilva\_64, Farber\_62, Microwolf\_61, Watson\_62, Zetzy\_61, Snickers\_62, Soshari\_64, JHC117\_61, Grif\_62, MuchMore\_65, Colbster\_62, MarQuardt\_62, Pembroke\_62, Misomonster\_63, GingkoMaracino\_62, Lowa\_62, Grum1\_62, StepMih\_62, Taurus\_63, GtownJaz\_62, Tiffany\_61, Stagni\_62, Rummer\_61, Phoebe\_63, PotatoSplit\_64, AugsMagnumOpus\_65, LugYA\_65, Mainiac\_62, SoYo\_62, Cullens\_62

- Track 156 : P28Green\_63
- Track 157 : Marius\_63, JeppNRM\_63, Kalb97\_63, Phranny\_63, Heliosoles\_61, Reba\_62, Kalnoky\_63, Manu\_62, PhishRPhriends\_60, HaveUMetTed\_63, ACFishhook\_61, Groupthink\_63, Gemma\_61, OlanP\_61, PurpleHaze\_62, Pawn\_62
- Track 158 : Panamaxus\_55
- Track 159 : Lambert1\_57, Caviar\_57, Noella\_57, ResDef\_57, Popcicle\_57, Hookmount\_57, Pocahontas\_57, Todacoro\_57, Texage\_56, Margo\_57, QuinnKiro\_56, Norbert\_56, Veracruz\_56
- Track 160 : Fred313\_57, Marchesa\_58, HelDan\_58, Kachowdy\_58, Heathen\_58, DropBear\_58
- Track 161 : Bugatti\_59, Giroux\_59, BlueBird\_60, Idleandcovert\_58, Pistachio\_59, Puppy\_59, TNguyen7\_59, SaturnRing\_59
- Track 162 : Bxz2\_57
- Track 163 : BabyRay\_58
- Track 164 : Phantastic\_59, Isca\_57, MA5\_58, JF4\_56, B1\_52, JF2\_56, Rockstar\_57, MK4\_58
- Track 165 : Calvinny\_62
- Track 166 : Scout\_58
- Track 167 : BabyJohn\_55, Chiqui\_55
- Track 168 : Nyxis\_55, Lemur\_55, Chaph\_55, Phighter1804\_55, JetBlade\_55, TroyPia\_56, LittleB\_55, Iceman\_55, DirtyDunning\_54, Phacado\_55, Sparxx\_56, Wizard007\_55, BubbleTrouble\_54, Eurydice\_56, Kremtemulon\_55, LeoAvram\_55, MeeZee\_55, Florean\_55, Roosevelt\_54, Spino\_54, Dhanush\_55, Pipcraft\_53, Maverick\_55, SenorClean\_53, NorthStar\_54, NotAPhaseMom\_55, CentreCat\_55, Commander\_55, Rosa24\_54, Taquarus\_55, BellusTerra\_56, Connomayer\_55, KFPoly\_54, Eros\_55, Clarenza\_54, HamSlice\_53, Blackmoor\_55, Citius\_55, Koan\_53, LittleGuy\_55, ICleared\_55, Deano\_54, Eapen\_55, Shaka\_55, Jaykayelowell\_53, Phontbonne\_55, Ohfah\_56, Annyong\_55, Palestino\_54, Funston\_54, OKaNui\_55, JoongJeon\_54, Mazhar510\_55, Koreni\_54, Millski\_54, Gadost\_55, Nebs\_56, Bartimeaus\_55, Medusa\_55, Polymorphads\_56, Sabertooth\_55, Mayonnaise\_55, Lunsford\_56, Morrow\_56, Bruiser\_54, Burger\_53, Albee\_55, Iracema64\_56, Flux\_55, Cintron\_54, Eris\_54, TiroTheta9\_55, Pumbaa\_55, Lorenzo\_55, Bombshell\_55, Kingmustik0402\_55, TygerBlood\_55, Relief\_54, TinaFeyge\_54, Wander\_55, Nemo27\_55, PeterPeter\_55, Phelipe\_56, Melvin\_57, YoSam321\_55, Huxley\_55, Ulysses\_54, Alberto7\_56, Wilbur\_55, Maxo\_56, Ruin\_55, Houdini22\_55, Romney\_55, Thanksgivukkah\_54, Scamp\_55, Camperdownii\_53, Baby16\_55, LappelDuVide\_55, Noelle\_55, Tinybot\_54, Druantia\_55, Abdiel\_55, Cocoaberry\_55, Holli\_54, Broseidon\_55, Kyee\_55, Kampy\_54
- Track 169 : Cindaradix\_51
- Track 170 : Caelakin\_55, Eagle\_55
- Track 171 : Peaches\_54
- Track 172 : Mundrea\_54, AvatarAhPeg\_53, Miramae\_53, Avle17\_55, Stink\_53
- Track 173 : Badger\_53, Bumblebee11\_53, Cici\_54, Datway\_54, PetiteSangsue\_54, Wile\_54, Katalie136\_54, Achebe\_53, Morpher26\_54, Xena\_53, AbbysRanger\_54, Backyardigan\_52, Perplexer\_54
- Track 174 : Skipitt\_54
- Track 175 : LHTSCC\_57, BangNhom\_55, Obama12\_56, Cerulean\_56, Happiness\_54, ChampagnePapi\_57, SheldonCooper\_56
- Track 176 : Arturo\_54, Kratak\_55, Shygu2\_54
- Track 177 : LochMonster\_56
- Track 178 : Stasia\_54
- Track 179 : SydNat\_56, Zolita\_55, Ghoulboy\_56

- Track 180 : Discoknowium\_51, Phlorence\_51, Archetta\_52, Tiger\_52, ForGetIt\_53, Dublin\_53, MarysWell\_53, Jovo\_53, PickleBack\_53, Lev2\_53, Aragog\_52, Conspiracy\_53, AgentM\_52
- Track 181 : PetterN\_58, Scorpia\_58
- Track 182 : ElTiger69\_56, Airmid\_54
- Track 183 : Cuco\_53, Tarynearal\_51, Bonamassa\_53
- Track 184 : Prinashel1\_53, LittleCherry\_53, HuhtaEnerson15\_53, Milcery\_53, Micasa\_54
- Track 185 : Chadwick\_57, Benedict\_57
- Track 186 : Twigg\_53
- Track 187 : Coog\_52, Midas2\_52
- Track 188 : George\_51
- Track 189 : Bluefalcon\_52
- Track 190 : Swirley\_55
- Track 191 : Theia\_52, UnionJack\_55, Jabiru\_55
- Track 192 : Naca\_54
- Track 193 : Temprado\_63, Tucker\_61, Wiks\_60, Koko\_62, CloudWang3\_61, Roksolana\_62, Yokurt\_61, Gruunaga\_61, ToneTone\_58, Zulu\_62, Lilbunny\_60, Garak\_63, Artemis2UCLA\_61, Helmet\_63, BlessJoy\_61, Gladiator\_58, WunderPhul\_61, Zaka\_61, Indra\_64, Hexamo\_61
- Track 194 : Cookiedough\_60, Blinn1\_63, McFly\_60, Candra\_59, VohminGhazi\_60, Pmask\_59, Isiphiwo\_58, SuperAwesome\_60, JewelBug\_61, Dorothea\_60, Chartreuse\_58, DaVinci\_59, SmellyB\_60, Kazan\_61, EricB\_59, Neeharika16\_59, Hoot\_55, Jordennis\_59, SuperCallie99\_58, Polyphemus\_61, Newrala\_60, GreedyLawyer\_59, Kipper29\_60, BABullseye\_53
- Track 195 : Hammer\_61, Blue7\_62, Jeffabunny\_61
- Track 196 : Rifter\_61
- Track 197 : Priamo\_62
- Track 198 : PP\_58
- Track 199 : FlyCatcher\_61, Sheen\_57, Toro\_59
- Track 200 : DroogsArmy\_53
- Track 201 : HINdeR\_52
- Track 202 : Timshel\_54
- Track 203 : Astro\_59, Danforth\_59, Expelliarmus\_57, NearlyHeadless\_59, Smeadley\_59, Saintus\_54, Groundhog\_58, Dixon\_58, StepHig9\_59, Roary\_60
- Track 204 : Phillis\_57
- Track 205 : Arissanae\_58
- Track 206 : Spouty\_59, Phaeder\_59, ExplosioNervosa\_59, Fayely\_59, Priya\_59, Aliter\_59, EmyBug\_58, Tubs\_59
- Track 207 : SheaKeira\_57, DreamTeam1\_57, Charm\_57
- Track 208 : Elephantoon\_58
- Track 209 : Beemo\_59, Scherzo\_59, Sachima\_56, Lilleskat\_57, EdogawaKiddo\_57
- Track 210 : Onglai\_57, Hanray\_57
- Track 211 : Alma\_59
- Track 212 : Qobbit\_59
- Track 213 : Rahalelujah\_59
- Track 214 : Darrell\_61
- Track 215 : LoneWolf\_60
- Track 216 : Maminiaina\_58, BogosyJay\_58
- Track 217 : Eidsmoe\_59, Myxus\_59, Conquerage\_59, Catalina\_60, PackMan\_58, HortumSL17\_59
- Track 218 : Ugenie5\_56, Phonnegut\_59
- Track 219 : Vanisoa\_59

- Track 220 : Halex\_58
- Track 221 : Pioneer\_59
- Track 222 : RyeScarlet\_60, Jiawan\_57
- Track 223 : Toaka\_59
- Track 224 : Keziacharles14\_59
- Track 225 : Yecey3\_60
- Track 226 : Jash\_40, Eddasa\_40, BryanRecycles\_40, Rusticus\_40, Izzy\_40
- Track 227 : TuanPN\_38
- Track 228 : Esperer\_39, Phettuccine\_39, Indigo\_38
- Track 229 : Chucky\_39, Emaanora\_42, BarryBee\_42, Werner\_39, TagePighter\_41, Triste\_39, Snorlax\_39, SarahRose\_39
- Track 230 : Ejemplo\_38
- Track 231 : South40\_39, RedBear\_40, Katalie\_39
- Track 232 : EnochSoames\_42
- Track 233 : Nabi\_40, Lorelei\_40, Rana\_40
- Track 234 : Zemlya\_41, Dattran\_41, Danzina\_41, Goby\_39, Toma\_39, Sujidade\_40, Celeste\_40, Nanodon\_41
- Track 235 : Oliynyk\_40
- Track 236 : Asten\_39
- Track 237 : Caliburn\_39, Legacy\_39, Nerdos\_38, Unstoppable\_39, Leviticus\_39, Aaronocolus\_39, Hydra\_41, SunsetPointe\_39
- Track 238 : Dwayne\_39, Hippo\_39, OzzyJ\_40, Whatever\_39
- Track 239 : Ozzie\_39, Bovely\_39, BeardedLady\_40
- Track 240 : Yasdnil\_39, Maneekul\_39
- Track 241 : Godpower\_40, Lika\_39
- Track 242 : Lannister\_41
- Track 243 : Brataylor\_42
- Track 244 : Caelum\_41
- Track 245 : Bowden\_40, TinaBelcher\_40, TrvxScott\_39
- Track 246 : Paedore\_39
- Track 247 : R4\_40
- Track 248 : Andris\_39
- Track 249 : ELB20\_38
- Track 250 : Triumph\_41
- Track 251 : Puginator\_42, Paolo\_42, Zainub\_42
- Track 252 : Omar\_42
- Track 253 : GirlDinner\_39, Animus\_39, SqueakyClean\_39, Janus\_40
- Track 254 : Loofah\_40
- Track 255 : Pablito\_39
- Track 256 : Alvy\_42, BartholomewSD\_42
- Track 257 : Issmi\_41
- Track 258 : Diane\_39, Nishikigoi\_41, Haizum\_41, Tefunt\_41
- Track 259 : Jevington\_42
- Track 260 : Hank144\_41
- Track 261 : Thestral\_41
- Track 262 : Marav\_43
- Track 263 : Amethyst\_39
- Track 264 : Axiom\_43
- Track 265 : Superstar\_43
- Track 266 : Daudau\_40
- Track 267 : Pavo\_41, Conan\_41, Alsaber\_41, Kaine\_40, Provolone\_41, Dexers\_39, ElGato\_41
- Track 268 : Vanseggelen\_45

- Track 269 : Celery\_43, phiCAM\_38
- Track 270 : Yosif\_42
- Track 271 : Verabelle\_43
- Track 272 : Speedwell\_45
- Track 273 : Amela\_40
- Track 274 : Saftant\_40
- Track 275 : Verse\_40
- Track 276 : GreenWeasel\_41
- Track 277 : phiHau3\_41
- Track 278 : BroPlease\_40
- Track 279 : Itza\_41
- Track 280 : Celia\_41
- Track 281 : VieEnRose\_40
- Track 282 : Urza\_41
- Track 283 : Gremlin23\_57, Geostin\_52, FlowerPower\_57, Fabian\_55, Vorvolakos\_58, RetrieverFever\_57
- Track 284 : ToriToki\_58, Treat\_58, Romero\_58, Percastrophe\_58, JPandJE\_58
- Track 285 : HaugeAnator\_58, Olicious\_58, Immanuel3\_57, ZooBear\_58
- Track 286 : Kumquat\_57, Zeigle\_57, WRightOn\_61
- Track 287 : RosePharie\_58
- Track 288 : Manuel\_55
- Track 289 : Stella\_61
- Track 290 : Destructrice\_57
- Track 291 : Rideau\_62, Dennebes\_62
- Track 292 : Success\_29
- Track 293 : Bimmel\_27
- Track 294 : Spooks\_28
- Track 295 : PHL114L00\_30, LilBandit\_30, P104A\_30, P101A\_30, PAD20\_31, P1.1\_30, Leviosa\_30, Wizzo\_30, P100.1\_30, PHL112N00\_30
- Track 296 : PHL010M04\_30
- Track 297 : PHL060L00\_30, Aquarius\_30, DrParker\_30, Attacne\_30, P106M\_30, P9.1\_30, P106L\_30, P106I\_30, Procrass1\_30, P106A\_30, P106C\_31
- Track 298 : Supernova\_30, Enochoraptor\_30, P100D\_30, PA6\_31, P108C\_30, Lauchelly\_30, BruceLethal\_30, MrAK\_30, Cota\_30, Moyashi\_30, QueenBey\_30, Pirate\_30, P14.4\_30, Ouroboros\_30, Enoki\_30, PHL071N05\_30, Keiki\_30, MEAK\_30
- Track 299 : PHL067M10\_30, P104B\_30
- Track 300 : PHL111M01\_30, P105\_30, P107A\_30, PHL113M01\_30
- Track 301 : P107C\_30, ATCC29399BC\_30, ATCC29399BT\_30
- Track 302 : Rileysaurus\_30
- Track 303 : Stormborn\_30
- Track 304 : PHL037M02\_30
- Track 305 : Solid\_30
- Track 306 : PAS50\_31
- Track 307 : Kubed\_30
- Track 308 : SKKY\_30
- Track 309 : P100A\_30
- Track 310 : Gollum\_48, StCroix\_47, RexFury\_47, Erik\_48, Partridge\_47, Swann\_48, Naiad\_47, Bradshaw\_48, TWAMP\_48, Phrankenstein\_48, Krishelle\_48, Alatin\_47, Rasputin\_48
- Track 311 : Lillie\_48, Rhodalysa\_48
- Track 312 : BobbyDazzler\_48, PhailMary\_47
- Track 313 : Hiro\_48, Jester\_47, Bryce\_47, Yoncess\_47, Nancinator\_48, Yogi\_47, Espica\_48, UhSalsa\_48, AppleCloud\_45, Natosaleda\_47, Bonanza\_48,

- Belenaria\_48, Shuman\_48, Alpacados\_47, Harlequin\_47
- Track 314 : Dinger\_47, AngryOrchard\_46
- Track 315 : RER2\_41, CosmicSans\_48
- Track 316 : Takoda\_48
- Track 317 : RGL3\_42
- Track 318 : Ponzi\_29
- Track 319 : Ibantik\_36

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

The start number called the most often in the published annotations is 9, it was called in 573 of the 970 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook\_61, AN9\_62, ANI8\_62, AbbyPaige\_61, AbbysRanger\_54, Abdiel\_55, Achebe\_53, Acolyte\_54, Adzzy\_60, Agape74\_61, AgentM\_52, Aglet\_63, AgronaGT15\_61, Airmid\_54, Alatin\_47, Albee\_55, Alberto7\_56, Aliter\_59, Alpacados\_47, Anaysia\_66, Aneem\_60, AngryOrchard\_46, Annyong\_55, Anselm\_60, Anthony\_56, Anubis\_65, AppleCloud\_45, Aragog\_52, ArcherNM\_54, Archetta\_52, Arissanae\_58, Artemis2UCLA\_61, Arturo\_54, Astro\_59, AugsMagnumOpus\_65, AvatarAhPeg\_53, Avle17\_55, B1\_52, BABullseye\_53, Baby16\_55, BabyBack\_57, BabyJohn\_55, BabyRay\_58, Bachome\_61, Backyardigan\_52, Badger\_53, Baehexic\_58, BangNhom\_55, BarryBee\_42, Bartimeaus\_55, BeardedLady\_40, Beauxregard13\_62, Belenaria\_48, BellusTerra\_56, Benedict\_57, Benvolio\_56, Bigflo\_62, Blackmoor\_55, BlessJoy\_61, Blinn1\_63, BlueBird\_60, Bluefalcon\_52, BobSwaget\_55, BogosyJay\_58, Bombshell\_55, Bonamassa\_53, Bonanza\_48, Boohoo\_66, Bovely\_39, Bowtie\_60, Bradman\_59, Bradshaw\_48, BreSam8\_62, BroPlease\_40, Broseidon\_55, Bruiser\_54, Bryce\_47, BubbleTrouble\_54, Bud\_59, Bugatti\_59, Buggy\_61, Bumblebee11\_53, Burger\_53, BuzzBuzz\_59, C3\_57, Camperdownii\_53, Candra\_59, Caraxes\_59, Caviar\_57, Centaur\_60, CentreCat\_55, Cerulean\_56, Chadwick\_57, ChampagnePapi\_57, Changeling\_58, Chaph\_55, Chargerpower\_57, Charm\_57, Chartreuse\_58, ChipMunk\_61, Chiqui\_55, Chucky\_39, Chupacabra\_54, Cici\_54, Cindaradix\_51, Cintron\_54, Citius\_55, Clarenza\_54, CloudWang3\_61, Cocoaberry\_55, Colbster\_62, Colin\_58, Commander\_55, Connomayer\_55, Conspiracy\_53, Coog\_52, Cookiedough\_60, Crucio\_59, Cuco\_53, Cullens\_62, D32\_60, DBQu4n\_61, DaHudson\_62, DaVinci\_59, Daishi\_61, Dalmatian\_60, Danforth\_59, Darrell\_61, DarthPhader\_56, Datway\_54, Deano\_54, DekHockey33\_67, Dennebes\_62, Destructrice\_57, Dhanush\_55, Dieselweasel\_63, Dignity\_61, Dinger\_47, DirtyDunning\_54, Discoknowium\_51, Dixon\_58, DontArgue\_54, Dorothea\_60, Drake55\_61, Drake94\_54, DreamTeam1\_57, DropBear\_58, Druantia\_55, Dublin\_53, DudeLittle\_58, Duplo\_61, DustyMartin\_59, EagleEye\_62, Eaglepride\_57, Eapen\_55, Ebony\_59, Echild\_59, Edison31\_54, Ejemplo\_38, ElTiger69\_56, Elephantoon\_58, Emaanora\_42, EmyBug\_58, EpicPhail\_63, Equemioh13\_60, EricB\_59, Erik\_48, Eris\_54, Eros\_55, Espica\_48, Et2Brutus\_58, Eurydice\_56, EvilGenius\_61, Expelliarmus\_57, ExplosioNervosa\_59, Fabian\_55, Fameo\_59, Farber\_62, FatCactus\_52, Fayely\_59, Fernando\_62, Fibonacci\_59, FiringLine\_59, Flare16\_59, Flaverint\_60, Florean\_55, FlowerPower\_57, Flux\_55, FlyCatcher\_61, ForGetIt\_53, Fred313\_57, Funston\_54, Gadost\_55, Gail\_62, Garak\_63, GaugeLDP\_56, Gemma\_61, Georgie2\_60, Geostin\_52, Ghoulyboy\_56, Gilberta\_60, GingkoMaracino\_62, Giroux\_59,



Gladiator\_58, Gollum\_48, Goose\_56, GreedyLawyer\_59, GreenWeasel\_41, Gremlin23\_57, Grif\_62, Groundhog\_58, Groupthink\_63, Grub\_62, Grum1\_62, Gruunaga\_61, GtownJaz\_62, HINdeR\_52, HamSlice\_53, Happiness\_54, Harlequin\_47, HarryHoudini\_60, HashRod\_63, HaugeAnator\_58, HaveUMetTed\_63, Heathen\_58, Heffalump\_58, HelDan\_58, Heliosoles\_61, Helmet\_63, Herbertwm\_57, Hercules11\_62, Hexamo\_61, Hiro\_48, Holli\_54, Hookmount\_57, Hoot\_55, Houdini22\_55, HuhtaEnerson15\_53, Hutc2\_59, Huxley\_55, ICleared\_55, Iceman\_55, Idleandcovert\_58, Immanuel3\_57, Indra\_64, Iracema64\_56, Isca\_57, Isiphiwo\_58, Itza\_41, JF2\_56, JF4\_56, JHC117\_61, JPandJE\_58, JSwag\_65, Jabiru\_55, Jabith\_60, Jaykayelowell\_53, Jeeves\_63, JenCasNa\_63, JeppNRM\_63, Jerm\_61, Jester\_47, JetBlade\_55, JewelBug\_61, Jiawan\_57, Jobu08\_60, JoongJeon\_54, Jordennis\_59, Joselito\_60, JoshKayV\_61, Journey13\_53, Jovo\_53, Jsquared\_58, KADY\_62, KFPoly\_54, Kachowdy\_58, Kalb97\_63, Kalnoky\_63, Kalpine\_57, Kamy\_54, Katalie136\_54, Katalie\_39, KatherineG\_66, Kazan\_61, Kerberos\_61, Keziacharles14\_59, Kimona\_55, KingCyrus\_61, Kingmustik0402\_55, Kipper29\_60, KittenMittens\_53, Koan\_53, Koko\_62, Koreni\_54, Kratark\_55, Kremtemulon\_55, Krishelle\_48, Kristoff\_55, Kumquat\_57, Kyee\_55, LBerry\_63, LHTSCC\_57, Lambert1\_57, LappelDuVide\_55, Larenn\_58, LarryKay\_62, LastResort\_64, Lemur\_55, LeoAvram\_55, Lev2\_53, Leviathan\_61, LilTurb\_60, Lilbunny\_60, Lilith\_62, LittleB\_55, LittleCherry\_53, LittleGuy\_55, Lokk\_56, LoneWolf\_60, Looper\_65, Lorenzo\_55, Louie6\_61, Iowa\_62, Luchador\_62, Lucivia\_60, Lucyedi\_61, LugYA\_65, Lunsford\_56, MA5\_58, MK4\_58, MaCh\_60, Mabel\_59, MadMarie\_62, Mainiac\_62, MajorMajor\_59, Malec\_59, Malinsilva\_64, Maminiaina\_58, Manu\_62, Manuel\_55, MarQuardt\_62, Marchesa\_58, Margo\_57, Marie\_61, Marius\_63, MarysWell\_53, Maverick\_55, Maxo\_56, Mayonnaise\_55, Mazhar510\_55, McFly\_60, Medusa\_55, MeeZee\_55, Melvin\_57, Methuselah\_57, Micasa\_54, Microwolf\_61, MiculUcigas\_59, Midas2\_52, Miko\_56, Milcery\_53, Millski\_54, MinecraftSteve\_66, Miramae\_53, Misomonster\_63, MissWhite\_58, MoneyMay\_62, Morpher26\_54, Morrow\_56, MuchMore\_65, Mulciber\_59, Munch\_60, Mundrea\_54, MyraDee\_53, NaSiaTalie\_59, Naiad\_47, Naji\_61, Nancinator\_48, Natosaleda\_47, NearlyHeadless\_59, Nebs\_56, Nebulosus\_64, Neeharika16\_59, Nemo27\_55, Newrala\_60, Noella\_57, Noelle\_55, Norbert\_56, NorthStar\_54, NotAPhaseMom\_55, NothingSpecial\_57, Nyxis\_55, OKCentral2016\_55, OKaNui\_55, Obama12\_56, Odin\_57, Ohfah\_56, OlanP\_61, Olicious\_58, Ollie\_62, Orange\_59, Ozzie\_39, PGHhamlin\_64, Palestino\_54, Partridge\_47, Pawn\_62, PeaceMeal1\_54, Peaches\_54, Pembroke\_62, Penny1\_63, Percastrophe\_58, Perplexer\_54, PeterPeter\_55, Petersenfast\_58, PetiteSangsue\_54, PetterN\_58, Ph8s\_60, Phacado\_55, Phaeder\_59, Phantastic\_59, Pharaoh\_54, Phelipe\_56, Phighter1804\_55, Phillis\_57, PhishRPhriends\_60, Phlei\_49, Phlorence\_51, Phoebe\_63, Phonnegut\_59, Phontbonne\_55, Phoxy\_62, Phrankenstein\_48, Phranny\_63, PickleBack\_53, Pipcraft\_53, Piro94\_59, Pistachio\_59, Pmask\_59, Pocahontas\_57, Polymorphads\_56, Polyphemus\_61, Pomar16\_61, Poompha\_54, Popcicle\_57, PotatoSplit\_64, Power\_58, Prinash11\_53, Priya\_59, Pumbaa\_55, Puppy\_59, PurpleHaze\_62, QueenB2\_58, QueenBeesly\_59, QuinnKiro\_56, Rachaly\_58, Rahalelujah\_59, Rasputin\_48, ReMo\_64, Reba\_62, Rebeuca\_56, RedBear\_40, Refuge\_57, Relief\_54, Remus\_66, ResDef\_57, RetrieverFever\_57, Retro23\_60, RexFury\_47, RhynO\_56, Rideau\_62, Rifter\_61, Roary\_60, Rockstar\_57, Roksolana\_62, Romero\_58, Romney\_55, Roosevelt\_54, Rosa24\_54, Rosalind\_64, RosePharie\_58, Rowdy\_59, Ruin\_55, Rummer\_61, RyeScarlet\_60, Sabertooth\_55, Sabia\_62, Sabinator\_61, Saintus\_54, Salz\_58, SarahRose\_39, SaturnRing\_59, Scamp\_55, Scorpia\_58, Scout\_58, SemperFi\_60, SenorClean\_53, Serenity\_60, Severus\_54, Shaka\_55, Sham4\_59, Shapes\_59, SheaKeira\_57, Sheen\_57, SheldonCooper\_56, Shuman\_48, Shygu2\_54, Sknot\_60, Smeadley\_59, Smeagan\_62, SmellyB\_60, SnapTap\_59, Snape\_59, Snickers\_62,

Snorlax\_39, SoYo\_62, SoilDragon\_62, SororFago\_60, Soshari\_64, Soups\_66, South40\_39, Sparxx\_56, Spike509\_62, Spino\_54, Spouty\_59, StCroix\_47, Stagni\_62, StarStuff\_61, Stasia\_54, Steamy\_55, Stella\_61, StepMih\_62, Stephig9\_59, Stink\_53, Strosahl\_66, SuperAwesome\_60, SuperCallie99\_58, Superchunk\_57, Swann\_48, SweetiePie\_59, SwirlSquare\_64, Swirley\_55, SydNat\_56, TNguyen7\_59, TWAMP\_48, TagePhighter\_41, Takoda\_48, Taquarus\_55, Tarynearal\_51, Taurus\_63, Temprado\_63, Terrific\_61, Texage\_56, Thanksgivukkah\_54, Theia\_52, Tiffany\_61, Tiger\_52, Timothy\_59, TinaFeyge\_54, TinyPebbles\_61, TinyTimmy\_59, Tinybot\_54, TipsytheTRex\_56, TiroTheta9\_55, Toaka\_59, Todacoro\_57, Tomathan\_61, ToneTone\_58, Topanga\_53, ToriToki\_58, Toro\_59, Travvers\_61, Treat\_58, Trike\_54, Triste\_39, Trixie\_57, TroyPia\_56, Tubs\_59, Tucker\_61, Turbido\_60, Twigg\_53, Twister\_54, TygerBlood\_55, Ugenie5\_56, UhSalsa\_48, Ulysses\_54, UnionJack\_55, Updawg\_60, VC3\_62, Vanisoa\_59, Veracruz\_56, Vix\_61, VohminGhazi\_60, Vorvolakos\_58, WRightOn\_61, Waits\_66, WalterMcMickey\_54, Wander\_55, Warrior24\_69, Watson\_62, WeiHuaDA\_60, Werner\_39, Whabigail7\_60, WideWale\_60, Wiks\_60, Wilbur\_55, Wile\_54, Wizard007\_55, Wooldri\_64, WunderPhul\_61, Xena\_53, XianYue\_57, Yecey3\_60, YoSam321\_55, Yogi\_47, Yokurt\_61, Yoncess\_47, Zaka\_61, Zeigle\_57, Zetty\_61, Zimmer\_56, Zolita\_55, ZooBear\_58, Zulu\_62,

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

- Aaronocolus\_39, Alma\_59, Alsaber\_41, Amela\_40, AnnaL29\_61, Asten\_39, Battleship\_68, Beemo\_59, Blue7\_62, BobbyDazzler\_48, Brataylor\_42, BryanRecycles\_40, Bxz2\_57, Caelakin\_55, Caliburn\_39, Calvinny\_62, Catalina\_60, Celery\_43, Celeste\_40, Celia\_41, Che12\_60, Conan\_41, Conquerage\_59, CosmicSans\_48, D29\_57, Danzina\_41, Dattran\_41, Dexers\_39, Dwayne\_39, EZMoney23\_56, Eagle\_55, Eddasa\_40, EdogawaKiddo\_57, Eidsmoe\_59, ElGato\_41, EnochSoames\_42, Epsocamisio\_63, Esperer\_39, George\_51, Goby\_39, Godpower\_40, Gratitude\_58, Hammer\_61, Hanray\_57, Hippo\_39, Holes\_58, HortumSL17\_59, Hydra\_41, Indigo\_38, Insomnia\_60, Izzy\_40, Jash\_40, Jeffabunny\_61, Kaine\_40, Kinmap\_57, Koduck\_60, L5\_57, Lannister\_41, Legacy\_39, Leviticus\_39, Lika\_39, Lilleskat\_57, Lillie\_48, LochMonster\_56, Lorelei\_40, Maneekul\_39, Myxus\_59, Nabi\_40, Naca\_54, Nanodon\_41, Nerdos\_38, Oliinyk\_40, Onglai\_57, Oofda\_67, OzzyJ\_40, P28Green\_63, PP\_58, PackMan\_58, PainterBoy\_61, Panamaxus\_55, Pavo\_41, PhailMary\_47, Phettuccine\_39, Pioneer\_59, Priamo\_62, Provolone\_41, Pukovnik\_57, Qobbit\_59, Quokka\_58, RER2\_41, RGL3\_42, Rana\_40, RedRock\_61, Rhodalysa\_48, Rusticus\_40, Sachima\_56, Saftant\_40, Scherzo\_59, ShayRa\_66, Skipitt\_54, Speedwell\_45, Sujidade\_40, Sunhee\_61, SunsetPointe\_39, Switzerland\_65, Toma\_39, TuanPN\_38, Unstoppable\_39, Urza\_41, Vanseggelen\_45, Verabelle\_43, Verse\_40, VieEnRose\_40, Whatever\_39, Yasdnil\_39, Yosif\_42, Zemlya\_41, phiCAM\_38, phiHau3\_41,

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

- 20ES\_62, 40AC\_60, A6\_50, AFIS\_52, AN3\_62, ATCC29399BC\_30, ATCC29399BT\_30, Abbyshoes\_57, Abrogate\_540, Acme\_56, Adahisdi\_55, Aeneas\_57, Agaliana\_50, Ajay\_56, Alsfro\_59, Altman\_58, Alvin\_54, Alvy\_42, Amethyst\_39, Andris\_39, Anglerfish\_56, Animus\_39, Anon\_64, Applejack\_49, Aquarius\_30, Arcanine\_56, Arlo\_53, Ashballer\_57, Atkinbua\_58, Attacne\_30, Axiom\_43, BK1\_50, BPBiabs31\_56, BaconJack\_57, Bactobuster\_57, Barriga\_55, BarrowTuph\_55, BartholomewSD\_42, Beatrix\_54, BeesKnees\_57, BengiVuitton\_60, Bethlehem\_55, Bexan\_52, BiancaTri92\_59, Big3\_54, BigMau\_56, BigPaolini\_54, Bigchungl\_55, Bimmel\_27, Bircsak\_53, BluSpix\_53, Blue\_54, Bob3\_53, Bowden\_40,

Briton15\_58, BruceLethal\_30, Bruns\_54, Burton\_55, Buttons\_53, Bxb1\_50, CRB1\_63, CactusRose\_52, Caelum\_41, Carlyle\_53, Chanagan\_51, Ciao\_54, Conceptll\_57, Corvo\_55, Cota\_30, Crispicous1\_52, Cueyllyss\_56, DD5\_54, Daudau\_40, Deloris\_60, Dexes\_55, Diane\_39, Doom\_53, DrFeelGood\_52, DrParker\_30, DreamCatcher\_58, Dreamboat\_56, DroogsArmy\_53, Dulcie\_55, Dussy\_56, Dynamix\_56, ELB20\_38, Edtherson\_54, Enochoraptor\_30, Enoki\_30, EnzoK\_55, Espresso\_54, Euphoria\_52, Eyeball\_56, Fajezeel\_56, Fenn\_57, First\_0061, Forsytheast\_54, Francis47\_53, Froghopper\_52, GMonster\_52, GageAP\_55, Gandalf20\_57, GirlDinner\_39, Gompeii16\_53, Graduation\_58, GrecoEtereo\_55, Greg\_56, Gwendoluna\_58, Gyzlar\_51, Haizum\_41, Hami1\_48, HanShotFirst\_55, Hank144\_41, HarryOW\_54, Hermia\_55, HermioneGrange\_55, Homines\_47, Hope4ever\_56, ILeeKay\_58, Ibantik\_36, Ichabod\_58, IgnatiusPatJac\_55, Inyanga\_51, Iqorha\_51, IronMan\_58, Issmi\_41, Iwokeuplikedis\_61, JC27\_57, Jaan\_59, JackSparrow\_57, Janus\_40, Jasper\_56, Jerm2\_56, Jevington\_42, Jorgensen\_55, JuliaChild\_56, KBG\_55, KSSJEB\_54, Kanely\_57, Keiki\_30, Kenmech\_58, Killigrew\_55, Kubed\_30, Kugel\_55, KyMonks1A\_57, Kykar\_54, LadyBird\_64, Lamina13\_55, Landor\_59, Lauchelly\_30, Leogania\_59, Lesedi\_51, Levia\_51, Leviosa\_30, Licorice\_57, LilBandit\_30, LilBib\_55, LionsBait\_61, Lockley\_53, Loofah\_40, Lopton\_55, Loser\_61, LunarLander\_59, MEAK\_30, MPlant7149\_53, Magnar\_54, Magnito\_53, Makemake\_55, Manatee\_56, Marav\_43, Marcell\_52, Marchy\_49, Marco3\_58, Marge\_54, Marsha\_54, MaryBeth\_54, McGuire\_56, McSinger\_55, MetalQZJ\_53, Mkhuseli\_53, Molly\_56, Monet\_57, Moose\_54, Moyashi\_30, MrAK\_30, MrGordo\_54, Mryolo\_52, Mule\_52, Museum\_56, NEHalo\_53, Naira\_57, Nedarya\_62, Nerujay\_57, Nhonho\_54, NicoleTera\_57, Nishikigoi\_41, Niza\_57, Norz\_56, Ohno789\_56, Omar\_42, Oogway\_54, Ouroboros\_30, P1.1\_30, P100.1\_30, P100A\_30, P100D\_30, P101A\_30, P104A\_30, P104B\_30, P105\_30, P106A\_30, P106C\_31, P106I\_30, P106L\_30, P106M\_30, P107A\_30, P107C\_30, P108C\_30, P14.4\_30, P9.1\_30, PA6\_31, PAD20\_31, PAS50\_31, PHL010M04\_30, PHL037M02\_30, PHL060L00\_30, PHL067M10\_30, PHL071N05\_30, PHL111M01\_30, PHL112N00\_30, PHL113M01\_30, PHL114L00\_30, PSullivan\_55, Pablito\_39, PacerPaul\_54, Paedore\_39, Paolo\_42, Papez\_57, Paphu\_53, Paraselene\_52, Pari\_57, Parliament\_54, PascalRango\_55, PattyP\_55, Payneful\_54, Pelly\_55, Pepe\_51, Perseus\_55, Peterson\_59, Petruccio\_54, Phaded\_59, PherrisBueller\_54, PhineBark\_55, Phlippers\_54, PhrostyMug\_54, PinkPlastic\_55, Pinto\_55, Pippin\_56, Pirate\_30, Pita2\_58, Ponzi\_29, ProMouse\_56, Procrass1\_30, Puginator\_42, QTRLifeCrisis\_54, QueenBey\_30, R4\_40, Raid\_55, Rajelicia\_55, Rhynn\_53, RidgeCB\_54, Rileysaurus\_30, Ringer\_55, Rohr\_56, Rubeus\_55, Rufus\_56, Rutherford\_56, SKKY\_30, STLscum\_57, Sagefire\_57, Sandaddy\_53, Sanya\_52, SarFire\_52, Scowl\_55, Seabiscuit\_57, Seanderson\_56, ShortQueendom\_49, Sibs6\_57, SkiPole\_59, Slagathor\_57, Smairt\_57, Smeagol\_57, Snazzy\_54, Solid\_30, Solon\_53, Sorpresa\_53, SpikeBT\_54, Spooks\_28, SqueakyClean\_39, Squee\_55, StewieG\_53, Stormborn\_30, StrongArm\_53, Success\_29, Sumter\_51, Sunshine924\_56, Supernova\_30, Superstar\_43, SwissCheese\_56, Swole\_56, Target\_55, TarsusIV\_57, Tasp14\_56, Tefunt\_41, Teodoridan\_53, TheloniousMonk\_55, Thestral\_41, Thor\_52, Timshel\_54, TinaBelcher\_40, Topgun\_54, Tote\_51, Traft412\_57, Treddle\_55, Tripl3t\_55, Tristan\_56, Triumph\_41, Trooper\_60, Trouble\_57, TrvxScott\_39, TwoPeat\_56, U2\_54, VA6\_60, Violet\_53, Watermelon\_55, Wheeler\_55, Wilkins\_54, Wizzo\_30, Zainub\_42, Zeeculate\_53, Zephyr\_55, Zeuska\_53,

**Summary by start number:**

#### Start 4:

- Found in 4 of 1084 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 75.0% of time when present
- Phage (with cluster) where this start called: PHL010M04\_30 (BU), PHL037M02\_30 (BU), Rileysaurus\_30 (BU),

#### Start 6:

- Found in 34 of 1084 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 32 of 970
- Called 97.1% of time when present
- Phage (with cluster) where this start called: Alvy\_42 (BD2), Amethyst\_39 (BD2), Andris\_39 (BD2), Animus\_39 (BD2), BartholomewSD\_42 (BD2), Bowden\_40 (BD2), Caelum\_41 (BD2), Daudau\_40 (BD2), Diane\_39 (BD2), ELB20\_38 (BD2), GirlDinner\_39 (BD2), Haizum\_41 (BD2), Hank144\_41 (BD2), Issmi\_41 (BD2), Janus\_40 (BD2), Jevington\_42 (BD2), Loofah\_40 (BD2), Marav\_43 (BD2), Nishikigoi\_41 (BD2), Omar\_42 (BD2), Pablito\_39 (BD2), Paedore\_39 (BD2), Paolo\_42 (BD2), Puginator\_42 (BD2), R4\_40 (BD2), SqueakyClean\_39 (BD2), Superstar\_43 (BD2), Tefunt\_41 (BD2), Thestral\_41 (BD2), TinaBelcher\_40 (BD2), Triumph\_41 (BD2), TrvxScott\_39 (BD2), Zainub\_42 (BD2),

#### Start 7:

- Found in 76 of 1084 ( 7.0% ) of genes in pham
- Manual Annotations of this start: 37 of 970
- Called 48.7% of time when present
- Phage (with cluster) where this start called: Alsaber\_41 (BD3), Amela\_40 (BD3), Brataylor\_42 (BD1), Celeste\_40 (BD1), Conan\_41 (BD3), Danzina\_41 (BD1), Dattran\_41 (BD1), Dexers\_39 (BD3), Dwayne\_39 (BD1), ElGato\_41 (BD3), Esperer\_39 (BD1), Goby\_39 (BD1), Godpower\_40 (BD1), Hippo\_39 (BD1), Indigo\_38 (BD1), Kaine\_40 (BD3), Lika\_39 (BD1), Lorelei\_40 (BD1), Maneekul\_39 (BD1), Nabi\_40 (BD1), Nanodon\_41 (BD1), Oliynyk\_40 (BD1), OzzyJ\_40 (BD1), Pavo\_41 (BD3), Phettuccine\_39 (BD1), Provolone\_41 (BD3), Rana\_40 (BD1), Saftant\_40 (BD3), Speedwell\_45 (BD3), Sujidade\_40 (BD1), Toma\_39 (BD1), Urza\_41 (BD6), Verse\_40 (BD3), Whatever\_39 (BD1), YasdniI\_39 (BD1), Yosif\_42 (BD3), Zemlya\_41 (BD1),

#### Start 8:

- Found in 4 of 1084 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Bimmel\_27 (BT), Spooks\_28 (BT), Success\_29 (BT),

#### Start 9:

- Found in 742 of 1084 ( 68.5% ) of genes in pham
- Manual Annotations of this start: 573 of 970
- Called 84.0% of time when present
- Phage (with cluster) where this start called: ACFishhook\_61 (A3), AN9\_62 (A2), ANI8\_62 (A2), AbbyPaige\_61 (A2), AbbysRanger\_54 (A4), Abdiel\_55 (A4), Achebe\_53 (A4), Acolyte\_54 (A2), Adzzy\_60 (A2), Agape74\_61 (A2), AgentM\_52 (A5), Aglet\_63 (A3), AgronaGT15\_61 (A3), Airmid\_54 (A5), Alatin\_47 (CA), Albee\_55 (A4), Alberto7\_56 (A4), Aliter\_59 (A9), Alpacados\_47 (CA), Anaysia\_66 (A15), Aneem\_60 (A11), AngryOrchard\_46 (CA), Annyong\_55 (A4), Anselm\_60 (A2),

Anthony\_56 (A20), Anubis\_65 (A3), AppleCloud\_45 (CA), Aragog\_52 (A5), ArcherNM\_54 (A2), Archetta\_52 (A5), Arissanae\_58 (A9), Artemis2UCLA\_61 (A6), Arturo\_54 (A4), Astro\_59 (A8), AugsMagnumOpus\_65 (A3), AvatarAhPeg\_53 (A4), Avle17\_55 (A4), B1\_52 (A3), BABullseye\_53 (A6), Baby16\_55 (A4), BabyBack\_57 (A2), BabyJohn\_55 (A3), BabyRay\_58 (A3), Bachome\_61 (A11), Backyardigan\_52 (A4), Badger\_53 (A4), Baehexic\_58 (A2), BangNhom\_55 (A4), BarryBee\_42 (BD1), Bartimeaus\_55 (A4), BeardedLady\_40 (BD1), Beauxregard13\_62 (A3), Belenaria\_48 (CA), BellusTerra\_56 (A4), Benedict\_57 (A5), Benvolio\_56 (A2), Bigflo\_62 (A3), Blackmoor\_55 (A4), BlessJoy\_61 (A6), Blinn1\_63 (A6), BlueBird\_60 (A3), Bluefalcon\_52 (A5), BobSwaget\_55 (A2), BogosyJay\_58 (A9), Bombshell\_55 (A4), Bonamassa\_53 (A5), Bonanza\_48 (CA), Boohoo\_66 (A15), Bovely\_39 (BD1), Bowtie\_60 (A11), Bradman\_59 (A2), Bradshaw\_48 (CA), BreSam8\_62 (A3), BroPlease\_40 (BD4), Broseidon\_55 (A4), Bruiser\_54 (A4), Bryce\_47 (CA), BubbleTrouble\_54 (A4), Bud\_59 (A11), Bugatti\_59 (A3), Buggy\_61 (A2), Bumblebee11\_53 (A4), Burger\_53 (A4), BuzzBuzz\_59 (A3), C3\_57 (A2), Camperdownii\_53 (A4), Candra\_59 (A6), Caraxes\_59 (A2), Caviar\_57 (A3), Centaur\_60 (A2), CentreCat\_55 (A4), Cerulean\_56 (A4), Chadwick\_57 (A5), ChampagnePapi\_57 (A4), Changeling\_58 (A2), Chaph\_55 (A4), Chargerpower\_57 (A), Charm\_57 (A9), Chartreuse\_58 (A6), ChipMunk\_61 (A2), Chiqui\_55 (A3), Chucky\_39 (BD1), Chupacabra\_54 (A10), Cici\_54 (A4), Cindaradix\_51 (A4), Cintron\_54 (A4), Citius\_55 (A4), Clarenza\_54 (A4), CloudWang3\_61 (A6), Cocoaberry\_55 (A4), Colbster\_62 (A3), Colin\_58 (A2), Commander\_55 (A4), Connomayer\_55 (A4), Conspiracy\_53 (A5), Coog\_52 (A5), Cookiedough\_60 (A6), Crucio\_59 (A2), Cuco\_53 (A5), Cullens\_62 (A3), D32\_60 (A2), DBQu4n\_61 (A2), DaHudson\_62 (A3), DaVinci\_59 (A6), Daishi\_61 (A3), Dalmatian\_60 (A2), Danforth\_59 (A8), Darrell\_61 (A9), DARTHPhader\_56 (A12), Datway\_54 (A4), Deano\_54 (A4), DekHockey33\_67 (A15), Dennebes\_62 (BF), Destructrice\_57 (BF), Dhanush\_55 (A4), Dieselweasel\_63 (A3), Dignity\_61 (A2), Dinger\_47 (CA), DirtyDunning\_54 (A4), Discoknowium\_51 (A5), Dixon\_58 (A8), DontArgue\_54 (A10), Dorothea\_60 (A6), Drake55\_61 (A2), Drake94\_54 (A10), DreamTeam1\_57 (A9), DropBear\_58 (A3), Druantia\_55 (A4), Dublin\_53 (A5), DudeLittle\_58 (A2), Duplo\_61 (A2), DustyMartin\_59 (A10), EagleEye\_62 (A16), Eaglepride\_57 (A10), Eapen\_55 (A4), Ebony\_59 (A11), Echild\_59 (A2), Edison31\_54 (A10), Ejemplo\_38 (BD1), EITiger69\_56 (A5), Elephantoon\_58 (A9), Emaanora\_42 (BD1), EmyBug\_58 (A9), EpicPhail\_63 (A3), Equemioh13\_60 (A2), EricB\_59 (A6), Erik\_48 (CA), Eris\_54 (A4), Eros\_55 (A4), Espica\_48 (CA), Et2Brutus\_58 (A11), Eurydice\_56 (A4), EvilGenius\_61 (A2), Expelliarmus\_57 (A8), ExplosioNervosa\_59 (A9), Fabian\_55 (BF), Fameo\_59 (A2), Farber\_62 (A3), FatCactus\_52 (A20), Fayely\_59 (A9), Fernando\_62 (A3), Fibonacci\_59 (A11), FiringLine\_59 (A2), Flare16\_59 (A2), Flaverint\_60 (A11), Florean\_55 (A4), FlowerPower\_57 (BF), Flux\_55 (A4), FlyCatcher\_61 (A7), ForGetIt\_53 (A5), Fred313\_57 (A3), Funston\_54 (A4), Gadost\_55 (A4), Gail\_62 (A14), Garak\_63 (A6), GaugeLDP\_56 (A2), Gemma\_61 (A3), Georgie2\_60 (A2), Geostin\_52 (BF), Ghoulboy\_56 (A5), Gilberta\_60 (A11), GingkoMaracino\_62 (A3), Giroux\_59 (A3), Gladiator\_58 (A6), Gollum\_48 (CA), Goose\_56 (A10), GreedyLawyer\_59 (A6), GreenWeasel\_41 (BD4), Gremlin23\_57 (BF), Grif\_62 (A3), Groundhog\_58 (A8), Groupthink\_63 (A3), Grub\_62 (A3), Grum1\_62 (A3), Gruunaga\_61 (A6), GtownJaz\_62 (A3), HINdeR\_52 (A7), HamSlice\_53 (A4), Happiness\_54 (A4), Harlequin\_47 (CA), HarryHoudini\_60 (A2), HashRod\_63 (A3), HaugeAnator\_58 (BF), HaveUMetTed\_63 (A3), Heathen\_58 (A3), Heffalump\_58 (A2), HelDan\_58 (A3), Heliosoles\_61 (A3), Helmet\_63 (A6), Herbertwm\_57 (A2), Hercules11\_62 (A3), Hexamo\_61 (A6), Hiro\_48 (CA), Holli\_54 (A4), Hookmount\_57 (A3), Hoot\_55 (A6), Houdini22\_55 (A4), HuhtaEnerson15\_53 (A5), Hutc2\_59 (A11), Huxley\_55 (A4), ICleared\_55 (A4), Iceman\_55 (A4), Idleandcovert\_58 (A3),

Immanuel3\_57 (BF), Indra\_64 (A6), Iracema64\_56 (A4), Isca\_57 (A3), Isiphiwo\_58 (A6), Itza\_41 (BD6), JF2\_56 (A3), JF4\_56 (A3), JHC117\_61 (A3), JPandJE\_58 (BF), JSwag\_65 (A15), Jabiru\_55 (A5), Jabith\_60 (A11), Jaykayelowell\_53 (A4), Jeeves\_63 (A14), JenCasNa\_63 (A3), JeppNRM\_63 (A3), Jerm\_61 (A2), Jester\_47 (CA), JetBlade\_55 (A4), JewelBug\_61 (A6), Jiawan\_57 (A9), Jobu08\_60 (A3), JoongJeon\_54 (A4), Jordennis\_59 (A6), Joselito\_60 (A11), JoshKayV\_61 (A2), Journey13\_53 (A2), Jovo\_53 (A5), Jsquared\_58 (A2), KADY\_62 (A3), KFPoly\_54 (A4), Kachowdy\_58 (A3), Kalb97\_63 (A3), Kalnoky\_63 (A3), Kalpine\_57 (A2), Kamy\_54 (A4), Katalie136\_54 (A4), Katalie\_39 (BD1), KatherineG\_66 (A15), Kazan\_61 (A6), Kerberos\_61 (A2), Keziacharles14\_59 (A9), Kimona\_55 (A19), KingCyrus\_61 (A2), Kingmustik0402\_55 (A4), Kipper29\_60 (A6), KittenMittens\_53 (A10), Koan\_53 (A4), Koko\_62 (A6), Koreni\_54 (A4), Kratark\_55 (A4), Kremtemulon\_55 (A4), Krishelle\_48 (CA), Kristoff\_55 (A10), Kumquat\_57 (BF), Kyee\_55 (A4), LBerry\_63 (A3), LHTSCC\_57 (A4), Lambert1\_57 (A3), LappelDuVide\_55 (A4), Larenn\_58 (A2), LarryKay\_62 (A3), LastResort\_64 (A15), Lemur\_55 (A4), LeoAvram\_55 (A4), Lev2\_53 (A5), Leviathan\_61 (A2), LiITurb\_60 (A2), Lilbunny\_60 (A6), Lilith\_62 (A3), LittleB\_55 (A4), LittleCherry\_53 (A5), LittleGuy\_55 (A4), Lokk\_56 (A2), LoneWolf\_60 (A9), Looper\_65 (A15), Lorenzo\_55 (A4), Louie6\_61 (A3), Lowa\_62 (A3), Luchador\_62 (A14), Lucivia\_60 (A11), Lucyedi\_61 (A16), LugYA\_65 (A3), Lunsford\_56 (A4), MA5\_58 (A3), MK4\_58 (A3), MaCh\_60 (A11), Mabel\_59 (A11), MadMarie\_62 (A3), Mainiac\_62 (A3), MajorMajor\_59 (A2), Malec\_59 (A2), Malinsilva\_64 (A3), Maminiana\_58 (A9), Manu\_62 (A3), Manuel\_55 (BF), MarQuardt\_62 (A3), Marchesa\_58 (A3), Margo\_57 (A3), Marie\_61 (A3), Marius\_63 (A3), MarysWell\_53 (A5), Maverick\_55 (A4), Maxo\_56 (A4), Mayonnaise\_55 (A4), Mazhar510\_55 (A4), McFly\_60 (A6), Medusa\_55 (A4), MeeZee\_55 (A4), Melvin\_57 (A4), Methuselah\_57 (A3), Micasa\_54 (A5), Microwolf\_61 (A3), MiculUcigas\_59 (A2), Midas2\_52 (A5), Miko\_56 (A2), Milcery\_53 (A5), Millski\_54 (A4), MinecraftSteve\_66 (A15), Miramae\_53 (A4), Misomonster\_63 (A3), MissWhite\_58 (A2), MoneyMay\_62 (A3), Morpher26\_54 (A4), Morrow\_56 (A4), MuchMore\_65 (A3), Mulciber\_59 (A11), Munch\_60 (A11), Mundrea\_54 (A4), MyraDee\_53 (A18), NaSiaTalie\_59 (A2), Naiad\_47 (CA), Naji\_61 (A2), Nancinator\_48 (CA), Natosaleda\_47 (CA), NearlyHeadless\_59 (A8), Nebs\_56 (A4), Nebulosus\_64 (A15), Neeharika16\_59 (A6), Nemo27\_55 (A4), Newrala\_60 (A6), Noella\_57 (A3), Noelle\_55 (A4), Norbert\_56 (A3), NorthStar\_54 (A4), NotAPhaseMom\_55 (A4), NothingSpecial\_57 (A2), Nyxis\_55 (A4), OKCentral2016\_55 (A10), OKaNui\_55 (A4), Obama12\_56 (A4), Odin\_57 (A2), Ohfah\_56 (A4), OlanP\_61 (A3), Olicious\_58 (BF), Ollie\_62 (A3), Orange\_59 (A11), Ozzie\_39 (BD1), PGHhamlin\_64 (A3), Palestino\_54 (A4), Partridge\_47 (CA), Pawn\_62 (A3), PeaceMeal1\_54 (A10), Peaches\_54 (A4), Pembroke\_62 (A3), Penny1\_63 (A3), Percastrophe\_58 (BF), Perplexer\_54 (A4), PeterPeter\_55 (A4), Petersenfast\_58 (A11), PetiteSangsue\_54 (A4), PetterN\_58 (A5), Ph8s\_60 (A2), Phacado\_55 (A4), Phaeder\_59 (A9), Phantastic\_59 (A3), Pharaoh\_54 (A12), Felipe\_56 (A4), Phighter1804\_55 (A4), Phillis\_57 (A8), PhishRPhriends\_60 (A3), Phlei\_49 (A13), Phlorence\_51 (A5), Phoebe\_63 (A3), Phonnegut\_59 (A9), Phontbonne\_55 (A4), Phoxy\_62 (A3), Phrankenstein\_48 (CA), Phranny\_63 (A3), PickleBack\_53 (A5), Pipcraft\_53 (A4), Piro94\_59 (A2), Pistachio\_59 (A3), Pmask\_59 (A6), Pocahontas\_57 (A3), Polymorphads\_56 (A4), Polyphemus\_61 (A6), Pomar16\_61 (A2), Poompha\_54 (A10), Popcicle\_57 (A3), PotatoSplit\_64 (A3), Power\_58 (A2), Prinasha11\_53 (A5), Priya\_59 (A9), Pumbaa\_55 (A4), Puppy\_59 (A3), PurpleHaze\_62 (A3), QueenB2\_58 (A2), QueenBeesly\_59 (A2), QuinnKiro\_56 (A3), Rachaly\_58 (A2), Rahalelujah\_59 (A9), Rasputin\_48 (CA), ReMo\_64 (A15), Reba\_62 (A3), Rebeuca\_56 (A10), RedBear\_40 (BD1), Refuge\_57 (A12), Relief\_54 (A4), Remus\_66 (A15), ResDef\_57 (A3), RetrieverFever\_57 (BF), Retro23\_60 (A2),

RexFury\_47 (CA), RhynO\_56 (A10), Rideau\_62 (BF), Rifter\_61 (A6), Roary\_60 (A8), Rockstar\_57 (A3), Roksolana\_62 (A6), Romero\_58 (BF), Romney\_55 (A4), Roosevelt\_54 (A4), Rosa24\_54 (A4), Rosalind\_64 (A15), RosePharie\_58 (BF), Rowdy\_59 (A10), Ruin\_55 (A4), Rummer\_61 (A3), RyeScarlet\_60 (A9), Sabertooth\_55 (A4), Sabia\_62 (A3), Sabinator\_61 (A3), Saintus\_54 (A8), Salz\_58 (A11), SarahRose\_39 (BD1), SaturnRing\_59 (A3), Scamp\_55 (A4), Scorpia\_58 (A5), Scout\_58 (A3), SemperFi\_60 (A2), SenorClean\_53 (A4), Serenity\_60 (A2), Severus\_54 (A10), Shaka\_55 (A4), Sham4\_59 (A11), Shapes\_59 (A10), SheaKeira\_57 (A9), Sheen\_57 (A7), SheldonCooper\_56 (A4), Shuman\_48 (CA), Shygu2\_54 (A4), Sknot\_60 (A2), Smeadley\_59 (A8), Smeagan\_62 (A2), SmellyB\_60 (A6), SnapTap\_59 (A2), Snape\_59 (A11), Snickers\_62 (A3), Snorlax\_39 (BD1), SoYo\_62 (A3), SoilDragon\_62 (A3), SororFago\_60 (A14), Soshari\_64 (A3), Soups\_66 (A15), South40\_39 (BD1), Sparxx\_56 (A4), Spike509\_62 (A3), Spino\_54 (A4), Spouty\_59 (A9), StCroix\_47 (CA), Stagni\_62 (A3), StarStuff\_61 (A2), Stasia\_54 (A4), Steamy\_55 (A12), Stella\_61 (BF), StepMih\_62 (A3), StepHig9\_59 (A8), Stink\_53 (A4), Strosahl\_66 (A15), SuperAwesome\_60 (A6), SuperCallie99\_58 (A6), Superchunk\_57 (A2), Swann\_48 (CA), SweetiePie\_59 (A2), SwirlSquare\_64 (A2), Swirley\_55 (A5), SydNat\_56 (A5), TNguyen7\_59 (A3), TWAMP\_48 (CA), TAgePhighter\_41 (BD1), Takoda\_48 (CA), Taquarus\_55 (A4), Tarynearl\_51 (A5), Taurus\_63 (A3), Temprado\_63 (A6), Terrific\_61 (A2), Texage\_56 (A3), Thanksgivukkah\_54 (A4), Theia\_52 (A5), Tiffany\_61 (A3), Tiger\_52 (A5), Timothy\_59 (A11), TinaFeyge\_54 (A4), TinyPebbles\_61 (A3), TinyTimmy\_59 (A11), Tinybot\_54 (A4), TipsytheTRex\_56 (A2), TiroTheta9\_55 (A4), Toaka\_59 (A9), Todacoro\_57 (A3), Tomathan\_61 (A2), ToneTone\_58 (A6), Topanga\_53 (A10), ToriToki\_58 (BF), Toro\_59 (A7), Travvers\_61 (A2), Treat\_58 (BF), Trike\_54 (A10), Triste\_39 (BD1), Trixie\_57 (A2), TroyPia\_56 (A4), Tubs\_59 (A9), Tucker\_61 (A6), Turbido\_60 (A2), Twigg\_53 (A5), Twister\_54 (A10), TygerBlood\_55 (A4), Ugenie5\_56 (A9), UhSalsa\_48 (CA), Ulysses\_54 (A4), UnionJack\_55 (A5), Updawg\_60 (A2), VC3\_62 (A2), Vanisoa\_59 (A9), Veracruz\_56 (A3), Vix\_61 (A3), VohminGhazi\_60 (A6), Vorvolakos\_58 (BF), WRightOn\_61 (BF), Waits\_66 (A15), WalterMcMickey\_54 (A10), Wander\_55 (A4), Warrior24\_69 (A15), Watson\_62 (A3), WeiHuaDA\_60 (A2), Werner\_39 (BD1), Whabigail7\_60 (A2), WideWale\_60 (A2), Wiks\_60 (A6), Wilbur\_55 (A4), Wile\_54 (A4), Wizard007\_55 (A4), Wooldri\_64 (A3), WunderPhul\_61 (A6), Xena\_53 (A4), XianYue\_57 (A2), Yecey3\_60 (A9), YoSam321\_55 (A4), Yogi\_47 (CA), Yokurt\_61 (A6), Yoncess\_47 (CA), Zaka\_61 (A6), Zeigle\_57 (BF), Zetzy\_61 (A3), Zimmer\_56 (A12), Zolita\_55 (A5), ZooBear\_58 (BF), Zulu\_62 (A6),

#### Start 10:

- Found in 2 of 1084 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 2 of 970
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anon\_64 (A15), Nedarya\_62 (A15),

#### Start 12:

- Found in 43 of 1084 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 28 of 970
- Called 67.4% of time when present
- Phage (with cluster) where this start called: AFIS\_52 (A1), Anglerfish\_56 (A1), Arcanine\_56 (A1), Atkinbua\_58 (A1), Big3\_54 (A1), Burton\_55 (A1), Chanagan\_51 (A1), Conceptll\_57 (A1), Espresso\_54 (A1), Euphoria\_52 (A1), GageAP\_55 (A1), Gandalf20\_57 (A1), HermioneGrange\_55 (A1), Jerm2\_56 (A1), KBG\_55 (A1), Lopton\_55 (A1), Manatee\_56 (A1), MrGordo\_54 (A1), NEHalo\_53 (A1), Ohno789\_56 (A1), PSullivan\_55 (A1), PattyP\_55 (A1), Pita2\_58 (A1), Raid\_55 (A1), Rajelicia\_55

(A1), Rohr\_56 (A1), Swole\_56 (A1), Tote\_51 (A1), Watermelon\_55 (A1),

Start 13:

- Found in 102 of 1084 ( 9.4% ) of genes in pham
- Manual Annotations of this start: 45 of 970
- Called 53.9% of time when present
- Phage (with cluster) where this start called: ATCC29399BC\_30 (BU), ATCC29399BT\_30 (BU), Aquarius\_30 (BU), Attacne\_30 (BU), BruceLethal\_30 (BU), Cota\_30 (BU), DrParker\_30 (BU), Enochoraptor\_30 (BU), Enoki\_30 (BU), Keiki\_30 (BU), Kubed\_30 (BU), Lauchelly\_30 (BU), Leviosa\_30 (BU), LilBandit\_30 (BU), MEAK\_30 (BU), Moyashi\_30 (BU), MrAK\_30 (BU), Ouroboros\_30 (BU), P1.1\_30 (BU), P100.1\_30 (BU), P100A\_30 (BU), P100D\_30 (BU), P101A\_30 (BU), P104A\_30 (BU), P104B\_30 (BU), P105\_30 (BU), P106A\_30 (BU), P106C\_31 (BU), P106I\_30 (BU), P106L\_30 (BU), P106M\_30 (BU), P107A\_30 (BU), P107C\_30 (BU), P108C\_30 (BU), P14.4\_30 (BU), P9.1\_30 (BU), PA6\_31 (BU), PAD20\_31 (BU), PAS50\_31 (BU), PHL060L00\_30 (BU), PHL067M10\_30 (BU), PHL071N05\_30 (BU), PHL111M01\_30 (BU), PHL112N00\_30 (BU), PHL113M01\_30 (BU), PHL114L00\_30 (BU), Pirate\_30 (BU), Procrass1\_30 (BU), QueenBey\_30 (BU), SKKY\_30 (BU), ShayRa\_66 (A15), Solid\_30 (BU), Stormborn\_30 (BU), Supernova\_30 (BU), Wizzo\_30 (BU),

Start 14:

- Found in 2 of 1084 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Ponzi\_29 (singleton),

Start 17:

- Found in 16 of 1084 ( 1.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Axiom\_43 (BD2),

Start 20:

- Found in 46 of 1084 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 38 of 970
- Called 91.3% of time when present
- Phage (with cluster) where this start called: Abrogate\_540 (A1), Acme\_56 (A1), BaconJack\_57 (A1), BigPaolini\_54 (A1), Blue\_54 (A1), Bob3\_53 (A1), Buttons\_53 (A1), Carlyle\_53 (A1), DrFeelGood\_52 (A1), Eyeball\_56 (A1), Gwendoluna\_58 (A1), Inyanga\_51 (A1), Iqorha\_51 (A1), Kugel\_55 (A1), KyMonks1A\_57 (A1), Kykar\_54 (A1), Lesedi\_51 (A1), MPlant7149\_53 (A1), Magnar\_54 (A1), Magnito\_53 (A1), Mkhusele\_53 (A1), Molly\_56 (A1), Naira\_57 (A1), Norz\_56 (A1), Pari\_57 (A1), Perseus\_55 (A1), Petruccio\_54 (A1), RidgeCB\_54 (A1), Rubeus\_55 (A1), Rufus\_56 (A1), Sagefire\_57 (A1), Seanderson\_56 (A1), ShortQueendom\_49 (A1), Sibs6\_57 (A1), Squee\_55 (A1), Sunshine924\_56 (A1), TheloniousMonk\_55 (A1), Traft412\_57 (A1), Trouble\_57 (A1), Violet\_53 (A1), Zephyr\_55 (A1), Zeuska\_53 (A1),

Start 21:

- Found in 628 of 1084 ( 57.9% ) of genes in pham
- Manual Annotations of this start: 22 of 970
- Called 4.3% of time when present
- Phage (with cluster) where this start called: AN3\_62 (A2), Bactobuster\_57 (A2), Battleship\_68 (A15), BengiVuitton\_60 (A2), BiancaTri92\_59 (A2), Calvinny\_62 (A3),



Deloris\_60 (A2), EZMoney23\_56 (A2), Epsocamisio\_63 (A15), Gratitude\_58 (A2), Insomnia\_60 (A11), IronMan\_58 (A2), Iwokeuplikedis\_61 (A2), Jaan\_59 (A2), LadyBird\_64 (A2), Landor\_59 (A2), Leogania\_59 (A2), LionsBait\_61 (A2), Loser\_61 (A2), Naca\_54 (A5), Oofda\_67 (A15), P28Green\_63 (A3), Phaded\_59 (A2), Priamo\_62 (A6), Switzerland\_65 (A15), Trooper\_60 (A2), VA6\_60 (A2),

#### Start 24:

- Found in 30 of 1084 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 2 of 970
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Panamaxus\_55 (A3), Quokka\_58 (A2), Timshel\_54 (A7),

#### Start 25:

- Found in 175 of 1084 ( 16.1% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Skipitt\_54 (A4),

#### Start 26:

- Found in 67 of 1084 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 3 of 970
- Called 11.9% of time when present
- Phage (with cluster) where this start called: Beemo\_59 (A9), EdogawaKiddo\_57 (A9), Hanray\_57 (A9), Lilleskat\_57 (A9), Onglai\_57 (A9), Qobbit\_59 (A9), Sachima\_56 (A9), Scherzo\_59 (A9),

#### Start 29:

- Found in 227 of 1084 ( 20.9% ) of genes in pham
- Manual Annotations of this start: 115 of 970
- Called 57.3% of time when present
- Phage (with cluster) where this start called: A6\_50 (A1), Abbyshoes\_57 (A1), Adahisdi\_55 (A1), Aeneas\_57 (A1), Agaliana\_50 (A1), Ajay\_56 (A1), Alsfro\_59 (A1), Altman\_58 (A1), Alvin\_54 (A1), Applejack\_49 (A1), Arlo\_53 (A1), Ashballer\_57 (A1), BK1\_50 (A1), Barriga\_55 (A1), BarrowTuph\_55 (A1), Beatrix\_54 (A1), BeesKnees\_57 (A1), Bexan\_52 (A1), Bigchungji\_55 (A1), Bircsak\_53 (A1), BluSpix\_53 (A1), Bruns\_54 (A1), CactusRose\_52 (A1), Corvo\_55 (A1), Crispicous1\_52 (A1), Cueyllyss\_56 (A1), Dexes\_55 (A1), Doom\_53 (A1), DreamCatcher\_58 (A1), Dreamboat\_56 (A1), Dulcie\_55 (A1), Dussy\_56 (A1), Dynamix\_56 (A1), Edtherson\_54 (A1), EnzoK\_55 (A1), Fajezeel\_56 (A1), Fenn\_57 (A1), Forsytheast\_54 (A1), Francis47\_53 (A1), Froghopper\_52 (A1), GMonster\_52 (A1), Gompeii16\_53 (A1), Graduation\_58 (A1), GrecoEtereo\_55 (A1), Greg\_56 (A1), Gyzlar\_51 (A1), Hami1\_48 (A1), HanShotFirst\_55 (A1), HarryOW\_54 (A1), Hermia\_55 (A1), Homines\_47 (A1), Hope4ever\_56 (A1), ILeeKay\_58 (A1), Ichabod\_58 (A1), IgnatiusPatJac\_55 (A1), JC27\_57 (A1), Jorgensen\_55 (A1), Kanely\_57 (A1), Kenmech\_58 (A1), Killigrew\_55 (A1), Lamina13\_55 (A1), Levia\_51 (A1), Licorice\_57 (A1), LilBib\_55 (A1), Makemake\_55 (A1), Marcell\_52 (A1), Marchy\_49 (A1), Marco3\_58 (A1), Marsha\_54 (A1), MaryBeth\_54 (A1), McGuire\_56 (A1), McSinger\_55 (A1), MetalQZJ\_53 (A1), Monet\_57 (A1), Moose\_54 (A1), Mryolo\_52 (A1), Mule\_52 (A1), Museum\_56 (A1), Nerujay\_57 (A1), Nhonho\_54 (A1), Oogway\_54 (A1), PacerPaul\_54 (A1), Papez\_57 (A1), Paphu\_53 (A1), Paraselene\_52 (A1), Parliament\_54 (A1), PascalRango\_55 (A1), Payneful\_54 (A1), Pelly\_55 (A1), Pepe\_51 (A1), Peterson\_59 (A1), PherrisBueller\_54 (A1),

PhineBark\_55 (A1), Phlippers\_54 (A1), PhrostyMug\_54 (A1), PinkPlastic\_55 (A1), Pinto\_55 (A1), Pippin\_56 (A1), ProMouse\_56 (A1), QTRlifeCrisis\_54 (A1), Rhynn\_53 (A1), Ringer\_55 (A1), Rutherford\_56 (A1), STLscum\_57 (A1), Sandaddy\_53 (A1), Sanya\_52 (A1), SarFire\_52 (A1), Scowl\_55 (A1), Seabiscuit\_57 (A1), Slagathor\_57 (A1), Smairt\_57 (A1), Smeagol\_57 (A1), Snazzy\_54 (A1), Solon\_53 (A1), Sorpresa\_53 (A1), SpikeBT\_54 (A1), StewieG\_53 (A1), StrongArm\_53 (A1), Sumter\_51 (A1), SwissCheese\_56 (A1), Target\_55 (A1), Tasp14\_56 (A1), Teodoridan\_53 (A1), Thor\_52 (A1), Topgun\_54 (A1), Treddle\_55 (A1), TwoPeat\_56 (A1), Wheeler\_55 (A1), Wilkins\_54 (A1), Zeeculate\_53 (A1),

#### Start 32:

- Found in 1 of 1084 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik\_36 (singleton),

#### Start 33:

- Found in 324 of 1084 ( 29.9% ) of genes in pham
- Manual Annotations of this start: 2 of 970
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Caelakin\_55 (A4), Eagle\_55 (A4),

#### Start 36:

- Found in 4 of 1084 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 2 of 970
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Celia\_41 (BD6), VieEnRose\_40 (BD6),

#### Start 37:

- Found in 856 of 1084 ( 79.0% ) of genes in pham
- Manual Annotations of this start: 23 of 970
- Called 3.5% of time when present
- Phage (with cluster) where this start called: 20ES\_62 (A2), 40AC\_60 (A17), Aaronocolus\_39 (BD1), Asten\_39 (BD1), Blue7\_62 (A6), BryanRecycles\_40 (BD1), CRB1\_63 (A2), Caliburn\_39 (BD1), Eddasa\_40 (BD1), EnochSoames\_42 (BD1), First\_0061 (A2), George\_51 (A5), Hammer\_61 (A6), Hydra\_41 (BD1), Izzy\_40 (BD1), Jash\_40 (BD1), Jeffabunny\_61 (A6), Legacy\_39 (BD1), Leviticus\_39 (BD1), Marge\_54 (A1), Nerdos\_38 (BD1), NicoleTera\_57 (A2), PainterBoy\_61 (A16), Rusticus\_40 (BD1), Sunhee\_61 (A14), SunsetPointe\_39 (BD1), TarsusIV\_57 (A2), Tripl3t\_55 (A1), Tristan\_56 (A2), Unstoppable\_39 (BD1),

#### Start 41:

- Found in 760 of 1084 ( 70.1% ) of genes in pham
- Manual Annotations of this start: 29 of 970
- Called 4.1% of time when present
- Phage (with cluster) where this start called: Alma\_59 (A9), BigMau\_56 (A1), BobbyDazzler\_48 (CA), Bxb1\_50 (A1), Bxb2\_57 (A3), Catalina\_60 (A9), Che12\_60 (A2), Ciao\_54 (A1), Conquerage\_59 (A9), CosmicSans\_48 (CA), D29\_57 (A2), DD5\_54 (A1), DroogsArmy\_53 (A7), Eidsmoe\_59 (A9), HortumSL17\_59 (A9), JackSparrow\_57 (A1), Jasper\_56 (A1), JuliaChild\_56 (A1), L5\_57 (A2), LochMonster\_56 (A4), Lockley\_53 (A1), Myxus\_59 (A9), Niza\_57 (A1), PP\_58 (A7), PackMan\_58 (A9), PhailMary\_47 (CA), Pioneer\_59 (A9), Pukovnik\_57 (A2), RER2\_41 (CA), RGL3\_42 (CA), U2\_54 (A1),

Start 43:

- Found in 37 of 1084 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 2.7% of time when present
- Phage (with cluster) where this start called: phiHau3\_41 (BD4),

Start 44:

- Found in 268 of 1084 ( 24.7% ) of genes in pham
- Manual Annotations of this start: 4 of 970
- Called 1.9% of time when present
- Phage (with cluster) where this start called: BPBiebs31\_56 (A1), Bethlehem\_55 (A1), KSSJEB\_54 (A1), LunarLander\_59 (A1), SkiPole\_59 (A1),

Start 45:

- Found in 247 of 1084 ( 22.8% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 0.8% of time when present
- Phage (with cluster) where this start called: AnnaL29\_61 (A2), Holecx\_58 (A9),

Start 47:

- Found in 340 of 1084 ( 31.4% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Koduck\_60 (A2), RedRock\_61 (A2),

Start 52:

- Found in 225 of 1084 ( 20.8% ) of genes in pham
- Manual Annotations of this start: 1 of 970
- Called 0.9% of time when present
- Phage (with cluster) where this start called: Briton15\_58 (A1), Kinmap\_57 (A21),

Start 53:

- Found in 247 of 1084 ( 22.8% ) of genes in pham
- Manual Annotations of this start: 4 of 970
- Called 3.2% of time when present
- Phage (with cluster) where this start called: Celery\_43 (BD3), Lannister\_41 (BD1), Lillie\_48 (CA), Rhodalysa\_48 (CA), TuanPN\_38 (BD1), Vanseggelen\_45 (BD3), Verabelle\_43 (BD3), phiCAM\_38 (BD3),

**Summary by clusters:**

There are 32 clusters represented in this pham: BF, singleton, BT, BU, BD1, A15, A14, A17, A16, A11, A10, A13, A12, A19, A18, A1, BD4, A3, A2, A5, A4, A7, BD2, A9, A8, A, BD3, CA, A6, A20, A21, BD6,

Info for manual annotations of cluster A:

- Start number 9 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A1:

- Start number 12 was manually annotated 28 times for cluster A1.
- Start number 20 was manually annotated 38 times for cluster A1.
- Start number 29 was manually annotated 115 times for cluster A1.

- Start number 37 was manually annotated 2 times for cluster A1.
- Start number 41 was manually annotated 10 times for cluster A1.
- Start number 44 was manually annotated 4 times for cluster A1.
- Start number 52 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A10:

- Start number 9 was manually annotated 17 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 9 was manually annotated 23 times for cluster A11.
- Start number 21 was manually annotated 1 time for cluster A11.

Info for manual annotations of cluster A12:

- Start number 9 was manually annotated 5 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 9 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 9 was manually annotated 15 times for cluster A15.
- Start number 10 was manually annotated 2 times for cluster A15.
- Start number 13 was manually annotated 1 time for cluster A15.
- Start number 21 was manually annotated 3 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 9 was manually annotated 2 times for cluster A16.
- Start number 37 was manually annotated 1 time for cluster A16.

Info for manual annotations of cluster A18:

- Start number 9 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 9 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 9 was manually annotated 79 times for cluster A2.
- Start number 21 was manually annotated 15 times for cluster A2.
- Start number 37 was manually annotated 2 times for cluster A2.
- Start number 41 was manually annotated 4 times for cluster A2.
- Start number 45 was manually annotated 1 time for cluster A2.
- Start number 47 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 9 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 9 was manually annotated 110 times for cluster A3.
- Start number 21 was manually annotated 1 time for cluster A3.
- Start number 24 was manually annotated 1 time for cluster A3.
- Start number 41 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A4:

- Start number 9 was manually annotated 133 times for cluster A4.
- Start number 25 was manually annotated 1 time for cluster A4.
- Start number 33 was manually annotated 2 times for cluster A4.
- Start number 41 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A5:

- Start number 9 was manually annotated 36 times for cluster A5.
- Start number 21 was manually annotated 1 time for cluster A5.
- Start number 37 was manually annotated 1 time for cluster A5.

Info for manual annotations of cluster A6:

- Start number 9 was manually annotated 38 times for cluster A6.
- Start number 21 was manually annotated 1 time for cluster A6.
- Start number 37 was manually annotated 3 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 9 was manually annotated 2 times for cluster A7.
- Start number 24 was manually annotated 1 time for cluster A7.
- Start number 41 was manually annotated 2 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 9 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 9 was manually annotated 24 times for cluster A9.
- Start number 26 was manually annotated 3 times for cluster A9.
- Start number 41 was manually annotated 8 times for cluster A9.

Info for manual annotations of cluster BD1:

- Start number 7 was manually annotated 24 times for cluster BD1.
- Start number 9 was manually annotated 15 times for cluster BD1.
- Start number 37 was manually annotated 14 times for cluster BD1.
- Start number 53 was manually annotated 2 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 6 was manually annotated 32 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 7 was manually annotated 12 times for cluster BD3.

Info for manual annotations of cluster BD4:

- Start number 9 was manually annotated 2 times for cluster BD4.
- Start number 43 was manually annotated 1 time for cluster BD4.

Info for manual annotations of cluster BD6:

- Start number 7 was manually annotated 1 time for cluster BD6.
- Start number 9 was manually annotated 1 time for cluster BD6.
- Start number 36 was manually annotated 2 times for cluster BD6.

Info for manual annotations of cluster BF:

- Start number 9 was manually annotated 21 times for cluster BF.

Info for manual annotations of cluster BT:

- Start number 8 was manually annotated 1 time for cluster BT.

Info for manual annotations of cluster BU:

- Start number 4 was manually annotated 1 time for cluster BU.
- Start number 13 was manually annotated 44 times for cluster BU.

Info for manual annotations of cluster CA:

- Start number 9 was manually annotated 31 times for cluster CA.
- Start number 41 was manually annotated 3 times for cluster CA.
- Start number 53 was manually annotated 2 times for cluster CA.

### **Gene Information:**

Gene: 20ES\_62 Start: 39206, Stop: 38721, Start Num: 37

Candidate Starts for 20ES\_62:

(Start: 21 @39260 has 22 MA's), (Start: 37 @39206 has 23 MA's), (Start: 47 @39149 has 1 MA's), (61, 39065), (69, 39005), (79, 38945), (80, 38939), (87, 38879), (91, 38846), (95, 38828), (103, 38792),

Gene: 40AC\_60 Start: 40016, Stop: 39528, Start Num: 37

Candidate Starts for 40AC\_60:

(Start: 21 @40070 has 22 MA's), (Start: 37 @40016 has 23 MA's), (Start: 47 @39959 has 1 MA's), (60, 39881), (61, 39875), (69, 39815), (82, 39734), (87, 39689), (91, 39656), (95, 39638), (103, 39602), (117, 39545),

Gene: A6\_50 Start: 37463, Stop: 36942, Start Num: 29

Candidate Starts for A6\_50:

(Start: 29 @37463 has 115 MA's), (Start: 37 @37439 has 23 MA's), (Start: 41 @37412 has 29 MA's), (Start: 44 @37400 has 4 MA's), (Start: 52 @37352 has 1 MA's), (73, 37202), (87, 37106), (91, 37073), (95, 37055), (103, 37019), (110, 36989),

Gene: ACFishhook\_61 Start: 38856, Stop: 38197, Start Num: 9

Candidate Starts for ACFishhook\_61:

(Start: 9 @38856 has 573 MA's), (Start: 21 @38763 has 22 MA's), (Start: 33 @38709 has 2 MA's), (Start: 37 @38697 has 23 MA's), (Start: 41 @38670 has 29 MA's), (60, 38550), (76, 38442), (79, 38424), (80, 38418), (91, 38325), (95, 38307), (103, 38271), (108, 38253), (110, 38241),

Gene: AFIS\_52 Start: 38222, Stop: 37578, Start Num: 12

Candidate Starts for AFIS\_52:

(Start: 12 @38222 has 28 MA's), (Start: 29 @38099 has 115 MA's), (Start: 41 @38048 has 29 MA's), (Start: 44 @38036 has 4 MA's), (58, 37955), (63, 37907), (68, 37886), (69, 37868), (79, 37808), (87, 37742), (91, 37709), (95, 37691), (103, 37655), (110, 37625),

Gene: AN3\_62 Start: 37975, Stop: 37436, Start Num: 21

Candidate Starts for AN3\_62:

(Start: 21 @37975 has 22 MA's), (Start: 37 @37921 has 23 MA's), (Start: 47 @37864 has 1 MA's), (61, 37780), (69, 37720), (80, 37654), (87, 37594), (91, 37561), (95, 37543), (103, 37507),

Gene: AN9\_62 Start: 39337, Stop: 38705, Start Num: 9

Candidate Starts for AN9\_62:

(Start: 9 @39337 has 573 MA's), (Start: 21 @39244 has 22 MA's), (Start: 37 @39190 has 23 MA's), (Start: 41 @39163 has 29 MA's), (Start: 47 @39133 has 1 MA's), (60, 39055), (61, 39049), (69, 38989), (82, 38908), (87, 38863), (91, 38830), (95, 38812), (103, 38776),

Gene: ANI8\_62 Start: 39337, Stop: 38705, Start Num: 9

Candidate Starts for ANI8\_62:

(Start: 9 @39337 has 573 MA's), (Start: 21 @39244 has 22 MA's), (Start: 37 @39190 has 23 MA's), (Start: 41 @39163 has 29 MA's), (Start: 47 @39133 has 1 MA's), (60, 39055), (61, 39049), (69, 38989), (82, 38908), (87, 38863), (91, 38830), (95, 38812), (103, 38776),

Gene: ATCC29399BC\_30 Start: 21324, Stop: 20653, Start Num: 13

Candidate Starts for ATCC29399BC\_30:

(Start: 13 @21324 has 45 MA's), (Start: 53 @21072 has 4 MA's), (64, 20979), (67, 20970), (69, 20949), (75, 20913), (93, 20784), (101, 20742), (113, 20685), (118, 20664),

Gene: ATCC29399BT\_30 Start: 21324, Stop: 20653, Start Num: 13

Candidate Starts for ATCC29399BT\_30:

(Start: 13 @21324 has 45 MA's), (Start: 53 @21072 has 4 MA's), (64, 20979), (67, 20970), (69, 20949), (75, 20913), (93, 20784), (101, 20742), (113, 20685), (118, 20664),

Gene: Aaronocolus\_39 Start: 27976, Stop: 28482, Start Num: 37

Candidate Starts for Aaronocolus\_39:

(Start: 7 @27817 has 37 MA's), (Start: 9 @27832 has 573 MA's), (11, 27835), (Start: 37 @27976 has 23 MA's), (Start: 53 @28060 has 4 MA's), (60, 28117), (61, 28123), (63, 28144), (64, 28153), (71, 28189), (73, 28213), (76, 28225), (78, 28234), (79, 28243), (84, 28288), (102, 28390), (107, 28411), (117, 28459),

Gene: AbbyPaige\_61 Start: 39407, Stop: 38775, Start Num: 9

Candidate Starts for AbbyPaige\_61:

(Start: 9 @39407 has 573 MA's), (Start: 21 @39314 has 22 MA's), (Start: 37 @39260 has 23 MA's), (Start: 47 @39203 has 1 MA's), (61, 39119), (69, 39059), (79, 38999), (87, 38933), (91, 38900), (103, 38846),

Gene: AbbysRanger\_54 Start: 38106, Stop: 37447, Start Num: 9

Candidate Starts for AbbysRanger\_54:

(Start: 9 @38106 has 573 MA's), (Start: 21 @38013 has 22 MA's), (Start: 25 @37995 has 1 MA's), (Start: 33 @37959 has 2 MA's), (Start: 37 @37947 has 23 MA's), (Start: 41 @37920 has 29 MA's), (Start: 45 @37905 has 1 MA's), (60, 37800), (79, 37674), (82, 37653), (83, 37638), (95, 37557), (103, 37521), (119, 37455),

Gene: Abbysshoes\_57 Start: 39710, Stop: 39186, Start Num: 29

Candidate Starts for Abbysshoes\_57:

(Start: 29 @39710 has 115 MA's), (Start: 37 @39686 has 23 MA's), (Start: 41 @39659 has 29 MA's), (Start: 44 @39647 has 4 MA's), (Start: 52 @39599 has 1 MA's), (67, 39500), (73, 39449), (87, 39353), (88, 39350), (91, 39320), (95, 39302), (103, 39266), (110, 39233), (111, 39230),

Gene: Abdiel\_55 Start: 38140, Stop: 37481, Start Num: 9

Candidate Starts for Abdiel\_55:

(Start: 9 @38140 has 573 MA's), (Start: 21 @38047 has 22 MA's), (Start: 25 @38029 has 1 MA's), (Start: 33 @37993 has 2 MA's), (Start: 37 @37981 has 23 MA's), (Start: 41 @37954 has 29 MA's), (Start: 45 @37939 has 1 MA's), (60, 37834), (79, 37708), (80, 37702), (82, 37687), (83, 37672), (95, 37591), (101, 37564), (103, 37555), (119, 37489),

Gene: Abrogate\_540 Start: 40093, Stop: 39515, Start Num: 20

Candidate Starts for Abrogate\_540:

(Start: 20 @40093 has 38 MA's), (Start: 29 @40036 has 115 MA's), (Start: 37 @40012 has 23 MA's), (Start: 41 @39985 has 29 MA's), (Start: 44 @39973 has 4 MA's), (Start: 52 @39925 has 1 MA's), (73, 39775), (87, 39679), (88, 39676), (91, 39646), (95, 39628), (103, 39592), (110, 39562),

Gene: Achebe\_53 Start: 38089, Stop: 37430, Start Num: 9

Candidate Starts for Achebe\_53:

(Start: 9 @38089 has 573 MA's), (Start: 21 @37996 has 22 MA's), (Start: 25 @37978 has 1 MA's), (Start: 33 @37942 has 2 MA's), (Start: 37 @37930 has 23 MA's), (Start: 41 @37903 has 29 MA's), (Start: 45 @37888 has 1 MA's), (60, 37783), (79, 37657), (82, 37636), (83, 37621), (95, 37540), (103, 37504), (119, 37438),

Gene: Acme\_56 Start: 38690, Stop: 38112, Start Num: 20

Candidate Starts for Acme\_56:

(Start: 20 @38690 has 38 MA's), (Start: 29 @38633 has 115 MA's), (Start: 37 @38609 has 23 MA's), (Start: 41 @38582 has 29 MA's), (Start: 44 @38570 has 4 MA's), (Start: 52 @38522 has 1 MA's), (73, 38372), (87, 38276), (88, 38273), (91, 38243), (95, 38225), (103, 38189), (110, 38159),

Gene: Acolyte\_54 Start: 38229, Stop: 37597, Start Num: 9

Candidate Starts for Acolyte\_54:

(Start: 9 @38229 has 573 MA's), (Start: 21 @38136 has 22 MA's), (Start: 37 @38082 has 23 MA's), (Start: 41 @38055 has 29 MA's), (Start: 47 @38025 has 1 MA's), (60, 37947), (61, 37941), (69, 37881), (82, 37800), (103, 37668), (110, 37638), (111, 37635),

Gene: Adahisdi\_55 Start: 39766, Stop: 39242, Start Num: 29

Candidate Starts for Adahisdi\_55:

(Start: 29 @39766 has 115 MA's), (Start: 37 @39742 has 23 MA's), (Start: 41 @39715 has 29 MA's), (Start: 44 @39703 has 4 MA's), (Start: 52 @39655 has 1 MA's), (67, 39556), (73, 39505), (87, 39409), (91, 39376), (95, 39358), (103, 39322), (110, 39289), (111, 39286),

Gene: Adzzy\_60 Start: 37879, Stop: 37247, Start Num: 9

Candidate Starts for Adzzy\_60:

(Start: 9 @37879 has 573 MA's), (Start: 21 @37786 has 22 MA's), (Start: 37 @37732 has 23 MA's), (Start: 41 @37705 has 29 MA's), (Start: 47 @37675 has 1 MA's), (60, 37597), (76, 37489), (81, 37456), (82, 37450), (83, 37435), (87, 37405), (90, 37396), (91, 37372), (95, 37354), (103, 37318),

Gene: Aeneas\_57 Start: 39983, Stop: 39459, Start Num: 29

Candidate Starts for Aeneas\_57:

(Start: 29 @39983 has 115 MA's), (Start: 37 @39959 has 23 MA's), (Start: 41 @39932 has 29 MA's), (Start: 44 @39920 has 4 MA's), (Start: 52 @39872 has 1 MA's), (67, 39773), (73, 39722), (87, 39626), (91, 39593), (95, 39575), (103, 39539), (110, 39506), (111, 39503),

Gene: Agaliana\_50 Start: 36301, Stop: 35780, Start Num: 29

Candidate Starts for Agaliana\_50:

(Start: 29 @36301 has 115 MA's), (Start: 37 @36277 has 23 MA's), (Start: 41 @36250 has 29 MA's), (Start: 44 @36238 has 4 MA's), (Start: 52 @36190 has 1 MA's), (67, 36091), (73, 36040), (87, 35944), (91, 35911), (95, 35893), (103, 35857), (110, 35827),

Gene: Agape74\_61 Start: 39401, Stop: 38769, Start Num: 9

Candidate Starts for Agape74\_61:

(Start: 9 @39401 has 573 MA's), (Start: 21 @39308 has 22 MA's), (Start: 37 @39254 has 23 MA's), (Start: 47 @39197 has 1 MA's), (61, 39113), (69, 39053), (79, 38993), (87, 38927), (91, 38894), (103,



38840),

Gene: AgentM\_52 Start: 38130, Stop: 37471, Start Num: 9

Candidate Starts for AgentM\_52:

(Start: 9 @38130 has 573 MA's), (Start: 21 @38037 has 22 MA's), (Start: 25 @38019 has 1 MA's), (Start: 33 @37977 has 2 MA's), (Start: 37 @37965 has 23 MA's), (Start: 41 @37938 has 29 MA's), (Start: 44 @37926 has 4 MA's), (69, 37764), (80, 37698), (83, 37668), (87, 37638), (89, 37632), (91, 37605), (95, 37587), (101, 37560), (103, 37551), (108, 37533), (110, 37521), (111, 37518),

Gene: Aglet\_63 Start: 38899, Stop: 38240, Start Num: 9

Candidate Starts for Aglet\_63:

(Start: 9 @38899 has 573 MA's), (Start: 21 @38806 has 22 MA's), (Start: 33 @38752 has 2 MA's), (Start: 37 @38740 has 23 MA's), (Start: 41 @38713 has 29 MA's), (60, 38593), (76, 38485), (79, 38467), (80, 38461), (95, 38350), (103, 38314), (108, 38296), (110, 38284),

Gene: AgronaGT15\_61 Start: 38747, Stop: 38088, Start Num: 9

Candidate Starts for AgronaGT15\_61:

(Start: 9 @38747 has 573 MA's), (Start: 21 @38654 has 22 MA's), (Start: 33 @38600 has 2 MA's), (Start: 37 @38588 has 23 MA's), (Start: 41 @38561 has 29 MA's), (60, 38441), (76, 38333), (79, 38315), (80, 38309), (95, 38198), (103, 38162), (108, 38144), (110, 38132),

Gene: Airmid\_54 Start: 38274, Stop: 37612, Start Num: 9

Candidate Starts for Airmid\_54:

(Start: 9 @38274 has 573 MA's), (Start: 21 @38181 has 22 MA's), (Start: 25 @38163 has 1 MA's), (Start: 33 @38121 has 2 MA's), (Start: 37 @38109 has 23 MA's), (Start: 41 @38082 has 29 MA's), (Start: 44 @38070 has 4 MA's), (Start: 45 @38067 has 1 MA's), (69, 37905), (80, 37839), (82, 37824), (83, 37809), (87, 37779), (89, 37773), (91, 37746), (95, 37728), (101, 37701), (103, 37692), (108, 37674), (110, 37662), (111, 37659),

Gene: Ajay\_56 Start: 39761, Stop: 39240, Start Num: 29

Candidate Starts for Ajay\_56:

(Start: 29 @39761 has 115 MA's), (Start: 37 @39737 has 23 MA's), (Start: 41 @39710 has 29 MA's), (Start: 44 @39698 has 4 MA's), (Start: 52 @39650 has 1 MA's), (73, 39500), (87, 39404), (88, 39401), (91, 39371), (95, 39353), (103, 39317), (110, 39287),

Gene: Alatin\_47 Start: 35347, Stop: 34688, Start Num: 9

Candidate Starts for Alatin\_47:

(Start: 9 @35347 has 573 MA's), (Start: 26 @35224 has 3 MA's), (Start: 37 @35188 has 23 MA's), (Start: 41 @35161 has 29 MA's), (Start: 47 @35131 has 1 MA's), (Start: 52 @35101 has 1 MA's), (Start: 53 @35098 has 4 MA's), (54, 35092), (60, 35041), (67, 34996), (69, 34975), (79, 34915), (80, 34909), (108, 34744), (111, 34729),

Gene: Albee\_55 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Albee\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Alberto7\_56 Start: 38476, Stop: 37817, Start Num: 9

Candidate Starts for Alberto7\_56:

(Start: 9 @38476 has 573 MA's), (Start: 21 @38383 has 22 MA's), (Start: 25 @38365 has 1 MA's), (Start: 33 @38329 has 2 MA's), (Start: 37 @38317 has 23 MA's), (Start: 41 @38290 has 29 MA's),

(Start: 45 @38275 has 1 MA's), (60, 38170), (79, 38044), (80, 38038), (82, 38023), (83, 38008), (95, 37927), (101, 37900), (103, 37891), (119, 37825),

Gene: Aliter\_59 Start: 38782, Stop: 38153, Start Num: 9

Candidate Starts for Aliter\_59:

(Start: 9 @38782 has 573 MA's), (Start: 21 @38689 has 22 MA's), (Start: 26 @38665 has 3 MA's), (Start: 37 @38641 has 23 MA's), (Start: 41 @38614 has 29 MA's), (Start: 45 @38599 has 1 MA's), (60, 38503), (61, 38497), (67, 38458), (69, 38437), (80, 38371), (87, 38311), (91, 38278), (103, 38224),

Gene: Alma\_59 Start: 38989, Stop: 38528, Start Num: 41

Candidate Starts for Alma\_59:

(Start: 9 @39157 has 573 MA's), (Start: 21 @39064 has 22 MA's), (Start: 26 @39040 has 3 MA's), (Start: 37 @39016 has 23 MA's), (Start: 41 @38989 has 29 MA's), (Start: 45 @38974 has 1 MA's), (60, 38878), (61, 38872), (67, 38833), (69, 38812), (80, 38746), (87, 38686), (91, 38653), (103, 38599), (110, 38569), (111, 38566),

Gene: Alpacados\_47 Start: 35249, Stop: 34590, Start Num: 9

Candidate Starts for Alpacados\_47:

(Start: 9 @35249 has 573 MA's), (Start: 26 @35126 has 3 MA's), (Start: 37 @35090 has 23 MA's), (Start: 41 @35063 has 29 MA's), (Start: 47 @35033 has 1 MA's), (Start: 52 @35003 has 1 MA's), (Start: 53 @35000 has 4 MA's), (54, 34994), (60, 34943), (67, 34898), (69, 34877), (80, 34811), (108, 34646), (111, 34631),

Gene: Alsaber\_41 Start: 29707, Stop: 30372, Start Num: 7

Candidate Starts for Alsaber\_41:

(Start: 7 @29707 has 37 MA's), (Start: 9 @29722 has 573 MA's), (Start: 53 @29950 has 4 MA's), (60, 30007), (61, 30013), (63, 30034), (64, 30043), (73, 30103), (74, 30106), (76, 30115), (84, 30178), (87, 30199), (102, 30280), (107, 30301),

Gene: Alsfro\_59 Start: 39337, Stop: 38813, Start Num: 29

Candidate Starts for Alsfro\_59:

(Start: 29 @39337 has 115 MA's), (Start: 37 @39313 has 23 MA's), (Start: 41 @39286 has 29 MA's), (Start: 44 @39274 has 4 MA's), (Start: 52 @39226 has 1 MA's), (73, 39076), (87, 38980), (88, 38977), (91, 38947), (95, 38929), (103, 38893),

Gene: Altman\_58 Start: 39953, Stop: 39432, Start Num: 29

Candidate Starts for Altman\_58:

(Start: 29 @39953 has 115 MA's), (Start: 37 @39929 has 23 MA's), (Start: 41 @39902 has 29 MA's), (Start: 44 @39890 has 4 MA's), (Start: 52 @39842 has 1 MA's), (67, 39743), (73, 39692), (87, 39596), (91, 39563), (95, 39545), (103, 39509), (110, 39479),

Gene: Alvin\_54 Start: 39086, Stop: 38565, Start Num: 29

Candidate Starts for Alvin\_54:

(Start: 29 @39086 has 115 MA's), (Start: 37 @39062 has 23 MA's), (Start: 41 @39035 has 29 MA's), (Start: 44 @39023 has 4 MA's), (Start: 52 @38975 has 1 MA's), (73, 38825), (87, 38729), (88, 38726), (91, 38696), (95, 38678), (103, 38642), (110, 38612),

Gene: Alvy\_42 Start: 29365, Stop: 30027, Start Num: 6

Candidate Starts for Alvy\_42:

(2, 29038), (3, 29095), (Start: 6 @29365 has 32 MA's), (15, 29413), (22, 29476), (Start: 43 @29566 has 1 MA's), (Start: 53 @29611 has 4 MA's), (63, 29695), (82, 29815), (84, 29839), (102, 29941), (109, 29974),

Gene: Amela\_40 Start: 30514, Stop: 31179, Start Num: 7

Candidate Starts for Amela\_40:

(Start: 7 @30514 has 37 MA's), (Start: 9 @30529 has 573 MA's), (22, 30622), (Start: 53 @30757 has 4 MA's), (60, 30814), (61, 30820), (63, 30841), (64, 30850), (73, 30910), (76, 30922), (84, 30985), (102, 31087), (107, 31108),

Gene: Amethyst\_39 Start: 28730, Stop: 29392, Start Num: 6

Candidate Starts for Amethyst\_39:

(2, 28406), (3, 28463), (Start: 6 @28730 has 32 MA's), (15, 28778), (22, 28841), (Start: 43 @28931 has 1 MA's), (Start: 53 @28976 has 4 MA's), (63, 29060), (82, 29180), (84, 29204), (87, 29225), (102, 29306), (107, 29324), (109, 29339), (117, 29372),

Gene: Anaysia\_66 Start: 38505, Stop: 37873, Start Num: 9

Candidate Starts for Anaysia\_66:

(Start: 9 @38505 has 573 MA's), (Start: 13 @38487 has 45 MA's), (Start: 21 @38412 has 22 MA's), (Start: 41 @38334 has 29 MA's), (Start: 45 @38319 has 1 MA's), (Start: 47 @38304 has 1 MA's), (66, 38184), (67, 38181), (78, 38109), (82, 38079), (91, 38001), (103, 37947),

Gene: Andris\_39 Start: 28789, Stop: 29460, Start Num: 6

Candidate Starts for Andris\_39:

(Start: 6 @28789 has 32 MA's), (15, 28837), (19, 28873), (28, 28930), (Start: 43 @28990 has 1 MA's), (Start: 53 @29035 has 4 MA's), (56, 29050), (63, 29119), (82, 29239), (84, 29263), (87, 29284), (102, 29365), (115, 29419),

Gene: Aneem\_60 Start: 38660, Stop: 38013, Start Num: 9

Candidate Starts for Aneem\_60:

(Start: 9 @38660 has 573 MA's), (Start: 21 @38567 has 22 MA's), (Start: 37 @38513 has 23 MA's), (Start: 41 @38486 has 29 MA's), (Start: 47 @38456 has 1 MA's), (61, 38360), (69, 38300), (80, 38234), (82, 38219), (87, 38174), (90, 38165), (91, 38141), (103, 38087), (111, 38054),

Gene: Anglerfish\_56 Start: 40119, Stop: 39475, Start Num: 12

Candidate Starts for Anglerfish\_56:

(Start: 12 @40119 has 28 MA's), (Start: 29 @39996 has 115 MA's), (Start: 41 @39945 has 29 MA's), (Start: 44 @39933 has 4 MA's), (63, 39804), (68, 39783), (69, 39765), (87, 39639), (91, 39606), (95, 39588), (103, 39552), (110, 39522),

Gene: AngryOrchard\_46 Start: 35409, Stop: 34750, Start Num: 9

Candidate Starts for AngryOrchard\_46:

(Start: 9 @35409 has 573 MA's), (Start: 26 @35286 has 3 MA's), (Start: 37 @35250 has 23 MA's), (Start: 41 @35223 has 29 MA's), (Start: 47 @35193 has 1 MA's), (Start: 52 @35163 has 1 MA's), (Start: 53 @35160 has 4 MA's), (54, 35154), (60, 35103), (67, 35058), (79, 34977), (80, 34971), (108, 34806), (111, 34791),

Gene: Animus\_39 Start: 29205, Stop: 29864, Start Num: 6

Candidate Starts for Animus\_39:

(Start: 6 @29205 has 32 MA's), (15, 29253), (22, 29316), (Start: 43 @29406 has 1 MA's), (63, 29535), (82, 29655), (84, 29679), (87, 29700), (102, 29781),

Gene: AnnaL29\_61 Start: 39576, Stop: 39133, Start Num: 45

Candidate Starts for AnnaL29\_61:

(Start: 9 @39765 has 573 MA's), (Start: 21 @39672 has 22 MA's), (Start: 37 @39618 has 23 MA's), (Start: 45 @39576 has 1 MA's), (57, 39507), (60, 39483), (61, 39477), (67, 39438), (69, 39417), (79, 39357), (82, 39336), (87, 39291), (91, 39258), (95, 39240), (103, 39204),

Gene: Annyong\_55 Start: 38184, Stop: 37525, Start Num: 9

Candidate Starts for Annyong\_55:

(Start: 9 @38184 has 573 MA's), (Start: 21 @38091 has 22 MA's), (Start: 25 @38073 has 1 MA's), (Start: 33 @38037 has 2 MA's), (Start: 37 @38025 has 23 MA's), (Start: 41 @37998 has 29 MA's), (Start: 45 @37983 has 1 MA's), (60, 37878), (79, 37752), (80, 37746), (82, 37731), (83, 37716), (95, 37635), (101, 37608), (103, 37599), (119, 37533),

Gene: Anon\_64 Start: 38266, Stop: 37637, Start Num: 10

Candidate Starts for Anon\_64:

(Start: 10 @38266 has 2 MA's), (Start: 21 @38176 has 22 MA's), (Start: 37 @38125 has 23 MA's), (Start: 41 @38098 has 29 MA's), (Start: 47 @38068 has 1 MA's), (60, 37990), (61, 37984), (82, 37843), (87, 37798), (90, 37789), (103, 37711),

Gene: Anselm\_60 Start: 39308, Stop: 38676, Start Num: 9

Candidate Starts for Anselm\_60:

(Start: 9 @39308 has 573 MA's), (Start: 21 @39215 has 22 MA's), (Start: 37 @39161 has 23 MA's), (Start: 47 @39104 has 1 MA's), (61, 39020), (69, 38960), (79, 38900), (87, 38834), (91, 38801), (103, 38747),

Gene: Anthony\_56 Start: 37074, Stop: 36427, Start Num: 9

Candidate Starts for Anthony\_56:

(Start: 9 @37074 has 573 MA's), (Start: 21 @36981 has 22 MA's), (Start: 29 @36939 has 115 MA's), (Start: 33 @36927 has 2 MA's), (Start: 37 @36915 has 23 MA's), (Start: 52 @36828 has 1 MA's), (Start: 53 @36825 has 4 MA's), (60, 36780), (73, 36684), (91, 36555), (99, 36525), (117, 36444),

Gene: Anubis\_65 Start: 38785, Stop: 38126, Start Num: 9

Candidate Starts for Anubis\_65:

(Start: 9 @38785 has 573 MA's), (Start: 21 @38692 has 22 MA's), (Start: 33 @38638 has 2 MA's), (Start: 37 @38626 has 23 MA's), (Start: 41 @38599 has 29 MA's), (60, 38479), (76, 38371), (79, 38353), (80, 38347), (95, 38236), (103, 38200), (108, 38182), (110, 38170),

Gene: AppleCloud\_45 Start: 35074, Stop: 34415, Start Num: 9

Candidate Starts for AppleCloud\_45:

(Start: 9 @35074 has 573 MA's), (Start: 26 @34951 has 3 MA's), (Start: 37 @34915 has 23 MA's), (Start: 41 @34888 has 29 MA's), (Start: 47 @34858 has 1 MA's), (Start: 52 @34828 has 1 MA's), (Start: 53 @34825 has 4 MA's), (54, 34819), (60, 34768), (67, 34723), (69, 34702), (80, 34636), (108, 34471), (111, 34456),

Gene: Applejack\_49 Start: 35923, Stop: 35402, Start Num: 29

Candidate Starts for Applejack\_49:

(Start: 29 @35923 has 115 MA's), (Start: 37 @35899 has 23 MA's), (Start: 41 @35872 has 29 MA's), (Start: 44 @35860 has 4 MA's), (Start: 52 @35812 has 1 MA's), (67, 35713), (73, 35662), (87, 35566), (91, 35533), (95, 35515), (103, 35479), (110, 35449),

Gene: Aquarius\_30 Start: 20797, Stop: 20126, Start Num: 13

Candidate Starts for Aquarius\_30:

(Start: 13 @20797 has 45 MA's), (Start: 47 @20584 has 1 MA's), (Start: 53 @20545 has 4 MA's), (64, 20452), (67, 20443), (73, 20392), (93, 20257), (101, 20215), (113, 20158), (118, 20137),

Gene: Aragog\_52 Start: 38150, Stop: 37491, Start Num: 9

Candidate Starts for Aragog\_52:

(Start: 9 @38150 has 573 MA's), (Start: 21 @38057 has 22 MA's), (Start: 25 @38039 has 1 MA's), (Start: 33 @37997 has 2 MA's), (Start: 37 @37985 has 23 MA's), (Start: 41 @37958 has 29 MA's), (Start: 44 @37946 has 4 MA's), (69, 37784), (80, 37718), (83, 37688), (87, 37658), (89, 37652), (91, 37625), (95, 37607), (101, 37580), (103, 37571), (108, 37553), (110, 37541), (111, 37538),

Gene: Arcanine\_56 Start: 39739, Stop: 39092, Start Num: 12

Candidate Starts for Arcanine\_56:

(Start: 12 @39739 has 28 MA's), (Start: 29 @39616 has 115 MA's), (Start: 41 @39565 has 29 MA's), (Start: 44 @39553 has 4 MA's), (63, 39424), (68, 39403), (69, 39385), (87, 39259), (88, 39256), (91, 39226), (95, 39208), (103, 39172), (110, 39139), (111, 39136),

Gene: ArcherNM\_54 Start: 38767, Stop: 38135, Start Num: 9

Candidate Starts for ArcherNM\_54:

(Start: 9 @38767 has 573 MA's), (Start: 21 @38674 has 22 MA's), (30, 38638), (Start: 37 @38620 has 23 MA's), (Start: 47 @38563 has 1 MA's), (60, 38485), (61, 38479), (67, 38440), (69, 38419), (82, 38338), (87, 38293), (91, 38260), (95, 38242), (103, 38206),

Gene: Archetta\_52 Start: 38560, Stop: 37901, Start Num: 9

Candidate Starts for Archetta\_52:

(Start: 9 @38560 has 573 MA's), (Start: 21 @38467 has 22 MA's), (Start: 25 @38449 has 1 MA's), (Start: 33 @38407 has 2 MA's), (Start: 37 @38395 has 23 MA's), (Start: 41 @38368 has 29 MA's), (Start: 44 @38356 has 4 MA's), (69, 38194), (80, 38128), (83, 38098), (87, 38068), (89, 38062), (91, 38035), (95, 38017), (101, 37990), (103, 37981), (108, 37963), (110, 37951), (111, 37948),

Gene: Arissanae\_58 Start: 39470, Stop: 38844, Start Num: 9

Candidate Starts for Arissanae\_58:

(Start: 9 @39470 has 573 MA's), (16, 39434), (Start: 21 @39377 has 22 MA's), (Start: 37 @39329 has 23 MA's), (Start: 41 @39302 has 29 MA's), (Start: 47 @39272 has 1 MA's), (60, 39194), (61, 39188), (69, 39128), (76, 39086), (82, 39047), (87, 39002), (91, 38969), (103, 38915),

Gene: Arlo\_53 Start: 38163, Stop: 37642, Start Num: 29

Candidate Starts for Arlo\_53:

(Start: 12 @38286 has 28 MA's), (Start: 29 @38163 has 115 MA's), (Start: 41 @38112 has 29 MA's), (Start: 44 @38100 has 4 MA's), (63, 37971), (68, 37950), (69, 37932), (87, 37806), (88, 37803), (91, 37773), (95, 37755), (103, 37719), (110, 37689),

Gene: Artemis2UCLA\_61 Start: 37835, Stop: 37203, Start Num: 9

Candidate Starts for Artemis2UCLA\_61:

(Start: 9 @37835 has 573 MA's), (Start: 21 @37742 has 22 MA's), (Start: 37 @37688 has 23 MA's), (Start: 47 @37631 has 1 MA's), (61, 37547), (69, 37487), (87, 37361), (91, 37328), (95, 37310), (103, 37274), (108, 37256), (110, 37244), (111, 37241),

Gene: Arturo\_54 Start: 38378, Stop: 37719, Start Num: 9

Candidate Starts for Arturo\_54:

(Start: 9 @38378 has 573 MA's), (Start: 21 @38285 has 22 MA's), (Start: 25 @38267 has 1 MA's), (Start: 33 @38231 has 2 MA's), (Start: 37 @38219 has 23 MA's), (Start: 41 @38192 has 29 MA's), (Start: 45 @38177 has 1 MA's), (60, 38072), (79, 37946), (80, 37940), (82, 37925), (83, 37910), (95, 37829), (103, 37793), (119, 37727),

Gene: Ashballer\_57 Start: 39846, Stop: 39322, Start Num: 29

Candidate Starts for Ashballer\_57:

(Start: 29 @39846 has 115 MA's), (Start: 37 @39822 has 23 MA's), (Start: 41 @39795 has 29 MA's), (Start: 44 @39783 has 4 MA's), (Start: 52 @39735 has 1 MA's), (67, 39636), (73, 39585), (87, 39489),

(91, 39456), (95, 39438), (103, 39402), (110, 39369), (111, 39366),

Gene: Asten\_39 Start: 28338, Stop: 28844, Start Num: 37

Candidate Starts for Asten\_39:

(Start: 7 @28179 has 37 MA's), (Start: 9 @28194 has 573 MA's), (11, 28197), (Start: 37 @28338 has 23 MA's), (Start: 53 @28422 has 4 MA's), (60, 28479), (61, 28485), (63, 28506), (71, 28551), (73, 28575), (76, 28587), (78, 28596), (79, 28605), (84, 28650), (87, 28671), (102, 28752), (107, 28773), (117, 28821),

Gene: Astro\_59 Start: 38151, Stop: 37498, Start Num: 9

Candidate Starts for Astro\_59:

(Start: 9 @38151 has 573 MA's), (Start: 21 @38058 has 22 MA's), (Start: 33 @37998 has 2 MA's), (Start: 37 @37986 has 23 MA's), (Start: 41 @37959 has 29 MA's), (51, 37902), (60, 37851), (61, 37845), (82, 37704), (83, 37689), (87, 37659), (91, 37626), (108, 37554), (109, 37545), (111, 37539), (117, 37515),

Gene: Atkinbua\_58 Start: 39682, Stop: 39038, Start Num: 12

Candidate Starts for Atkinbua\_58:

(Start: 12 @39682 has 28 MA's), (Start: 29 @39559 has 115 MA's), (Start: 41 @39508 has 29 MA's), (Start: 44 @39496 has 4 MA's), (Start: 52 @39448 has 1 MA's), (67, 39349), (73, 39298), (87, 39202), (88, 39199), (91, 39169), (95, 39151), (103, 39115), (110, 39085),

Gene: Attacne\_30 Start: 20812, Stop: 20141, Start Num: 13

Candidate Starts for Attacne\_30:

(Start: 13 @20812 has 45 MA's), (Start: 47 @20599 has 1 MA's), (Start: 53 @20560 has 4 MA's), (64, 20467), (67, 20458), (73, 20407), (93, 20272), (101, 20230), (113, 20173), (118, 20152),

Gene: AugsMagnumOpus\_65 Start: 38890, Stop: 38231, Start Num: 9

Candidate Starts for AugsMagnumOpus\_65:

(Start: 9 @38890 has 573 MA's), (Start: 21 @38797 has 22 MA's), (Start: 33 @38743 has 2 MA's), (Start: 37 @38731 has 23 MA's), (Start: 41 @38704 has 29 MA's), (60, 38584), (76, 38476), (79, 38458), (80, 38452), (95, 38341), (103, 38305), (108, 38287), (110, 38275),

Gene: AvatarAhPeg\_53 Start: 37891, Stop: 37232, Start Num: 9

Candidate Starts for AvatarAhPeg\_53:

(Start: 9 @37891 has 573 MA's), (Start: 21 @37798 has 22 MA's), (Start: 25 @37780 has 1 MA's), (Start: 33 @37744 has 2 MA's), (Start: 37 @37732 has 23 MA's), (Start: 41 @37705 has 29 MA's), (Start: 45 @37690 has 1 MA's), (60, 37585), (79, 37459), (82, 37438), (83, 37423), (95, 37342), (101, 37315), (103, 37306), (119, 37240),

Gene: Avle17\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Avle17\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Axiom\_43 Start: 29014, Stop: 29613, Start Num: 17

Candidate Starts for Axiom\_43:

(1, 28507), (2, 28624), (3, 28681), (Start: 6 @28951 has 32 MA's), (15, 28999), (17, 29014), (19, 29035), (22, 29062), (Start: 43 @29152 has 1 MA's), (Start: 53 @29197 has 4 MA's), (63, 29281), (82, 29401), (84, 29425), (102, 29527), (107, 29545),

Gene: B1\_52 Start: 36726, Stop: 36064, Start Num: 9

Candidate Starts for B1\_52:

(Start: 9 @36726 has 573 MA's), (Start: 21 @36633 has 22 MA's), (Start: 33 @36579 has 2 MA's), (Start: 37 @36567 has 23 MA's), (Start: 41 @36540 has 29 MA's), (Start: 45 @36525 has 1 MA's), (Start: 53 @36477 has 4 MA's), (60, 36420), (68, 36372), (76, 36312), (79, 36294), (80, 36288), (82, 36273), (83, 36258), (87, 36228), (95, 36177), (103, 36141), (108, 36123), (119, 36075),

Gene: BABullseye\_53 Start: 35387, Stop: 34755, Start Num: 9

Candidate Starts for BABullseye\_53:

(Start: 9 @35387 has 573 MA's), (Start: 21 @35294 has 22 MA's), (Start: 37 @35240 has 23 MA's), (Start: 47 @35183 has 1 MA's), (60, 35105), (69, 35039), (82, 34958), (87, 34913), (91, 34880), (95, 34862), (103, 34826), (110, 34796), (111, 34793),

Gene: BK1\_50 Start: 37463, Stop: 36942, Start Num: 29

Candidate Starts for BK1\_50:

(Start: 29 @37463 has 115 MA's), (Start: 37 @37439 has 23 MA's), (Start: 41 @37412 has 29 MA's), (Start: 44 @37400 has 4 MA's), (Start: 52 @37352 has 1 MA's), (73, 37202), (87, 37106), (91, 37073), (95, 37055), (103, 37019), (110, 36989),

Gene: BPBiibs31\_56 Start: 39985, Stop: 39524, Start Num: 44

Candidate Starts for BPBiibs31\_56:

(Start: 20 @40105 has 38 MA's), (Start: 29 @40048 has 115 MA's), (Start: 37 @40024 has 23 MA's), (Start: 41 @39997 has 29 MA's), (Start: 44 @39985 has 4 MA's), (Start: 52 @39937 has 1 MA's), (73, 39787), (87, 39691), (88, 39688), (91, 39658), (95, 39640), (103, 39604), (110, 39571), (111, 39568),

Gene: Baby16\_55 Start: 38150, Stop: 37491, Start Num: 9

Candidate Starts for Baby16\_55:

(Start: 9 @38150 has 573 MA's), (Start: 21 @38057 has 22 MA's), (Start: 25 @38039 has 1 MA's), (Start: 33 @38003 has 2 MA's), (Start: 37 @37991 has 23 MA's), (Start: 41 @37964 has 29 MA's), (Start: 45 @37949 has 1 MA's), (60, 37844), (79, 37718), (80, 37712), (82, 37697), (83, 37682), (95, 37601), (101, 37574), (103, 37565), (119, 37499),

Gene: BabyBack\_57 Start: 39402, Stop: 38770, Start Num: 9

Candidate Starts for BabyBack\_57:

(Start: 9 @39402 has 573 MA's), (Start: 21 @39309 has 22 MA's), (Start: 37 @39255 has 23 MA's), (Start: 47 @39198 has 1 MA's), (60, 39120), (61, 39114), (69, 39054), (80, 38988), (82, 38973), (87, 38928), (91, 38895), (103, 38841),

Gene: BabyJohn\_55 Start: 38544, Stop: 37882, Start Num: 9

Candidate Starts for BabyJohn\_55:

(Start: 9 @38544 has 573 MA's), (Start: 21 @38451 has 22 MA's), (Start: 33 @38397 has 2 MA's), (Start: 37 @38385 has 23 MA's), (Start: 41 @38358 has 29 MA's), (Start: 45 @38343 has 1 MA's), (Start: 53 @38295 has 4 MA's), (60, 38238), (68, 38190), (76, 38130), (79, 38112), (80, 38106), (82, 38091), (83, 38076), (95, 37995), (103, 37959), (108, 37941), (119, 37893),

Gene: BabyRay\_58 Start: 38505, Stop: 37846, Start Num: 9

Candidate Starts for BabyRay\_58:

(Start: 9 @38505 has 573 MA's), (Start: 21 @38412 has 22 MA's), (Start: 25 @38394 has 1 MA's), (Start: 33 @38358 has 2 MA's), (Start: 37 @38346 has 23 MA's), (Start: 41 @38319 has 29 MA's), (Start: 53 @38256 has 4 MA's), (60, 38199), (68, 38151), (76, 38091), (79, 38073), (82, 38052), (83, 38037), (95, 37956), (103, 37920), (108, 37902), (119, 37854),

Gene: Bachome\_61 Start: 38640, Stop: 37993, Start Num: 9

Candidate Starts for Bachome\_61:

(Start: 9 @38640 has 573 MA's), (Start: 21 @38547 has 22 MA's), (Start: 37 @38493 has 23 MA's), (Start: 41 @38466 has 29 MA's), (Start: 47 @38436 has 1 MA's), (61, 38340), (69, 38280), (80, 38214), (82, 38199), (87, 38154), (90, 38145), (91, 38121), (103, 38067), (111, 38034),

Gene: Backyardigan\_52 Start: 38122, Stop: 37463, Start Num: 9

Candidate Starts for Backyardigan\_52:

(Start: 9 @38122 has 573 MA's), (Start: 21 @38029 has 22 MA's), (Start: 25 @38011 has 1 MA's), (Start: 33 @37975 has 2 MA's), (Start: 37 @37963 has 23 MA's), (Start: 41 @37936 has 29 MA's), (Start: 45 @37921 has 1 MA's), (60, 37816), (79, 37690), (82, 37669), (83, 37654), (95, 37573), (103, 37537), (119, 37471),

Gene: BaconJack\_57 Start: 40760, Stop: 40179, Start Num: 20

Candidate Starts for BaconJack\_57:

(Start: 20 @40760 has 38 MA's), (Start: 29 @40703 has 115 MA's), (Start: 37 @40679 has 23 MA's), (Start: 41 @40652 has 29 MA's), (Start: 44 @40640 has 4 MA's), (Start: 52 @40592 has 1 MA's), (67, 40493), (73, 40442), (87, 40346), (88, 40343), (91, 40313), (95, 40295), (103, 40259), (110, 40226), (111, 40223),

Gene: Bactobuster\_57 Start: 39623, Stop: 39084, Start Num: 21

Candidate Starts for Bactobuster\_57:

(Start: 21 @39623 has 22 MA's), (23, 39611), (Start: 37 @39569 has 23 MA's), (Start: 41 @39542 has 29 MA's), (Start: 47 @39512 has 1 MA's), (60, 39434), (61, 39428), (69, 39368), (82, 39287), (87, 39242), (91, 39209), (103, 39155), (110, 39125),

Gene: Badger\_53 Start: 38090, Stop: 37431, Start Num: 9

Candidate Starts for Badger\_53:

(Start: 9 @38090 has 573 MA's), (Start: 21 @37997 has 22 MA's), (Start: 25 @37979 has 1 MA's), (Start: 33 @37943 has 2 MA's), (Start: 37 @37931 has 23 MA's), (Start: 41 @37904 has 29 MA's), (Start: 45 @37889 has 1 MA's), (60, 37784), (79, 37658), (82, 37637), (83, 37622), (95, 37541), (103, 37505), (119, 37439),

Gene: Baehexic\_58 Start: 38879, Stop: 38247, Start Num: 9

Candidate Starts for Baehexic\_58:

(Start: 9 @38879 has 573 MA's), (Start: 21 @38786 has 22 MA's), (Start: 37 @38732 has 23 MA's), (Start: 47 @38675 has 1 MA's), (57, 38621), (60, 38597), (61, 38591), (69, 38531), (79, 38471), (82, 38450), (87, 38405), (91, 38372), (103, 38318),

Gene: BangNhom\_55 Start: 38542, Stop: 37883, Start Num: 9

Candidate Starts for BangNhom\_55:

(Start: 9 @38542 has 573 MA's), (Start: 21 @38449 has 22 MA's), (Start: 33 @38395 has 2 MA's), (Start: 37 @38383 has 23 MA's), (Start: 41 @38356 has 29 MA's), (Start: 45 @38341 has 1 MA's), (60, 38236), (79, 38110), (82, 38089), (83, 38074), (95, 37993), (101, 37966), (103, 37957), (119, 37891),

Gene: Barriga\_55 Start: 38273, Stop: 37752, Start Num: 29

Candidate Starts for Barriga\_55:

(Start: 29 @38273 has 115 MA's), (Start: 37 @38249 has 23 MA's), (Start: 41 @38222 has 29 MA's), (Start: 44 @38210 has 4 MA's), (Start: 52 @38162 has 1 MA's), (73, 38012), (87, 37916), (91, 37883), (95, 37865), (103, 37829), (110, 37799),

Gene: BarrowTuph\_55 Start: 39099, Stop: 38578, Start Num: 29

Candidate Starts for BarrowTuph\_55:



(Start: 29 @39099 has 115 MA's), (Start: 37 @39075 has 23 MA's), (Start: 41 @39048 has 29 MA's), (Start: 44 @39036 has 4 MA's), (Start: 52 @38988 has 1 MA's), (73, 38838), (87, 38742), (91, 38709), (95, 38691), (103, 38655), (110, 38625),

Gene: BarryBee\_42 Start: 28204, Stop: 28854, Start Num: 9

Candidate Starts for BarryBee\_42:

(Start: 7 @28189 has 37 MA's), (Start: 9 @28204 has 573 MA's), (11, 28207), (Start: 37 @28348 has 23 MA's), (Start: 53 @28432 has 4 MA's), (60, 28489), (61, 28495), (63, 28516), (71, 28561), (73, 28585), (76, 28597), (78, 28606), (79, 28615), (84, 28660), (87, 28681), (102, 28762), (107, 28783), (117, 28831),

Gene: BartholomewSD\_42 Start: 29364, Stop: 30026, Start Num: 6

Candidate Starts for BartholomewSD\_42:

(2, 29037), (3, 29094), (Start: 6 @29364 has 32 MA's), (15, 29412), (22, 29475), (Start: 43 @29565 has 1 MA's), (Start: 53 @29610 has 4 MA's), (63, 29694), (82, 29814), (84, 29838), (102, 29940), (109, 29973),

Gene: Bartimeaus\_55 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Bartimeaus\_55:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (101, 37565), (103, 37556), (119, 37490),

Gene: Battleship\_68 Start: 38618, Stop: 38079, Start Num: 21

Candidate Starts for Battleship\_68:

(Start: 9 @38711 has 573 MA's), (Start: 13 @38693 has 45 MA's), (Start: 21 @38618 has 22 MA's), (Start: 41 @38540 has 29 MA's), (Start: 45 @38525 has 1 MA's), (Start: 47 @38510 has 1 MA's), (66, 38390), (67, 38387), (78, 38315), (82, 38285), (91, 38207), (103, 38153),

Gene: BeardedLady\_40 Start: 28085, Stop: 28735, Start Num: 9

Candidate Starts for BeardedLady\_40:

(Start: 7 @28070 has 37 MA's), (Start: 9 @28085 has 573 MA's), (11, 28088), (Start: 37 @28229 has 23 MA's), (Start: 53 @28313 has 4 MA's), (60, 28370), (61, 28376), (63, 28397), (64, 28406), (71, 28442), (73, 28466), (76, 28478), (78, 28487), (79, 28496), (84, 28541), (102, 28643), (107, 28664), (117, 28712),

Gene: Beatrix\_54 Start: 39979, Stop: 39458, Start Num: 29

Candidate Starts for Beatrix\_54:

(Start: 29 @39979 has 115 MA's), (Start: 37 @39955 has 23 MA's), (Start: 41 @39928 has 29 MA's), (Start: 44 @39916 has 4 MA's), (Start: 52 @39868 has 1 MA's), (67, 39769), (73, 39718), (87, 39622), (91, 39589), (95, 39571), (103, 39535), (110, 39505),

Gene: Beauxregard13\_62 Start: 38902, Stop: 38243, Start Num: 9

Candidate Starts for Beauxregard13\_62:

(Start: 9 @38902 has 573 MA's), (Start: 21 @38809 has 22 MA's), (Start: 33 @38755 has 2 MA's), (Start: 37 @38743 has 23 MA's), (Start: 41 @38716 has 29 MA's), (60, 38596), (76, 38488), (79, 38470), (80, 38464), (95, 38353), (103, 38317), (108, 38299), (110, 38287),

Gene: Beemo\_59 Start: 38835, Stop: 38323, Start Num: 26

Candidate Starts for Beemo\_59:

(Start: 9 @38952 has 573 MA's), (Start: 21 @38859 has 22 MA's), (Start: 26 @38835 has 3 MA's), (Start: 37 @38811 has 23 MA's), (Start: 41 @38784 has 29 MA's), (Start: 45 @38769 has 1 MA's), (60,

38673), (61, 38667), (67, 38628), (69, 38607), (87, 38481), (91, 38448), (103, 38394), (110, 38364),

Gene: BeesKnees\_57 Start: 39132, Stop: 38611, Start Num: 29

Candidate Starts for BeesKnees\_57:

(Start: 29 @39132 has 115 MA's), (Start: 37 @39108 has 23 MA's), (Start: 41 @39081 has 29 MA's), (Start: 44 @39069 has 4 MA's), (Start: 52 @39021 has 1 MA's), (67, 38922), (73, 38871), (87, 38775), (88, 38772), (91, 38742), (95, 38724), (96, 38721), (103, 38688), (110, 38658), (111, 38655),

Gene: Belenaria\_48 Start: 35222, Stop: 34563, Start Num: 9

Candidate Starts for Belenaria\_48:

(Start: 9 @35222 has 573 MA's), (Start: 26 @35099 has 3 MA's), (Start: 37 @35063 has 23 MA's), (Start: 41 @35036 has 29 MA's), (Start: 47 @35006 has 1 MA's), (Start: 52 @34976 has 1 MA's), (Start: 53 @34973 has 4 MA's), (54, 34967), (60, 34916), (67, 34871), (69, 34850), (80, 34784), (108, 34619), (111, 34604),

Gene: BellusTerra\_56 Start: 38140, Stop: 37481, Start Num: 9

Candidate Starts for BellusTerra\_56:

(Start: 9 @38140 has 573 MA's), (Start: 21 @38047 has 22 MA's), (Start: 25 @38029 has 1 MA's), (Start: 33 @37993 has 2 MA's), (Start: 37 @37981 has 23 MA's), (Start: 41 @37954 has 29 MA's), (Start: 45 @37939 has 1 MA's), (60, 37834), (79, 37708), (80, 37702), (82, 37687), (83, 37672), (95, 37591), (101, 37564), (103, 37555), (119, 37489),

Gene: Benedict\_57 Start: 38522, Stop: 37860, Start Num: 9

Candidate Starts for Benedict\_57:

(Start: 9 @38522 has 573 MA's), (Start: 21 @38429 has 22 MA's), (Start: 25 @38411 has 1 MA's), (Start: 33 @38369 has 2 MA's), (Start: 37 @38357 has 23 MA's), (Start: 41 @38330 has 29 MA's), (Start: 44 @38318 has 4 MA's), (Start: 45 @38315 has 1 MA's), (69, 38153), (80, 38087), (81, 38078), (83, 38057), (87, 38027), (89, 38021), (91, 37994), (95, 37976), (101, 37949), (103, 37940), (108, 37922), (110, 37910), (111, 37907),

Gene: BengiVuitton\_60 Start: 39231, Stop: 38692, Start Num: 21

Candidate Starts for BengiVuitton\_60:

(Start: 21 @39231 has 22 MA's), (Start: 37 @39177 has 23 MA's), (Start: 47 @39120 has 1 MA's), (61, 39036), (69, 38976), (80, 38910), (87, 38850), (91, 38817), (95, 38799), (103, 38763),

Gene: Benvolio\_56 Start: 38332, Stop: 37700, Start Num: 9

Candidate Starts for Benvolio\_56:

(Start: 9 @38332 has 573 MA's), (Start: 21 @38239 has 22 MA's), (Start: 37 @38185 has 23 MA's), (Start: 47 @38128 has 1 MA's), (61, 38044), (69, 37984), (79, 37924), (87, 37858), (91, 37825), (103, 37771),

Gene: Bethlehem\_55 Start: 40567, Stop: 40109, Start Num: 44

Candidate Starts for Bethlehem\_55:

(Start: 12 @40753 has 28 MA's), (Start: 29 @40630 has 115 MA's), (Start: 41 @40579 has 29 MA's), (Start: 44 @40567 has 4 MA's), (63, 40438), (68, 40417), (69, 40399), (87, 40273), (91, 40240), (95, 40222), (103, 40186), (110, 40156),

Gene: Bexan\_52 Start: 39758, Stop: 39237, Start Num: 29

Candidate Starts for Bexan\_52:

(Start: 29 @39758 has 115 MA's), (Start: 37 @39734 has 23 MA's), (Start: 41 @39707 has 29 MA's), (Start: 44 @39695 has 4 MA's), (Start: 52 @39647 has 1 MA's), (67, 39548), (73, 39497), (87, 39401), (88, 39398), (91, 39368), (95, 39350), (98, 39341), (103, 39314), (110, 39284), (111, 39281),

Gene: BiancaTri92\_59 Start: 39379, Stop: 38840, Start Num: 21

Candidate Starts for BiancaTri92\_59:

(Start: 21 @39379 has 22 MA's), (30, 39343), (Start: 37 @39325 has 23 MA's), (Start: 41 @39298 has 29 MA's), (Start: 47 @39268 has 1 MA's), (60, 39190), (61, 39184), (69, 39124), (79, 39064), (82, 39043), (87, 38998), (91, 38965), (103, 38911),

Gene: Big3\_54 Start: 39904, Stop: 39257, Start Num: 12

Candidate Starts for Big3\_54:

(Start: 12 @39904 has 28 MA's), (Start: 29 @39781 has 115 MA's), (Start: 41 @39730 has 29 MA's), (Start: 44 @39718 has 4 MA's), (58, 39637), (63, 39589), (68, 39568), (69, 39550), (79, 39490), (87, 39424), (91, 39391), (95, 39373), (103, 39337), (110, 39304), (111, 39301),

Gene: BigMau\_56 Start: 38450, Stop: 37977, Start Num: 41

Candidate Starts for BigMau\_56:

(Start: 12 @38624 has 28 MA's), (Start: 29 @38501 has 115 MA's), (Start: 41 @38450 has 29 MA's), (Start: 44 @38438 has 4 MA's), (58, 38357), (63, 38309), (68, 38288), (69, 38270), (87, 38144), (91, 38111), (95, 38093), (103, 38057), (110, 38024), (111, 38021),

Gene: BigPaolini\_54 Start: 37415, Stop: 36837, Start Num: 20

Candidate Starts for BigPaolini\_54:

(Start: 20 @37415 has 38 MA's), (Start: 29 @37358 has 115 MA's), (Start: 37 @37334 has 23 MA's), (Start: 41 @37307 has 29 MA's), (Start: 44 @37295 has 4 MA's), (Start: 52 @37247 has 1 MA's), (67, 37148), (73, 37097), (87, 37001), (88, 36998), (91, 36968), (95, 36950), (103, 36914), (110, 36884),

Gene: Bigchungj\_55 Start: 38517, Stop: 37993, Start Num: 29

Candidate Starts for Bigchungj\_55:

(Start: 29 @38517 has 115 MA's), (Start: 37 @38493 has 23 MA's), (Start: 41 @38466 has 29 MA's), (Start: 44 @38454 has 4 MA's), (Start: 52 @38406 has 1 MA's), (67, 38307), (73, 38256), (87, 38160), (88, 38157), (91, 38127), (95, 38109), (103, 38073), (110, 38040), (111, 38037),

Gene: Bigflo\_62 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for Bigflo\_62:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's), (Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79, 38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: Bimmel\_27 Start: 18732, Stop: 18031, Start Num: 8

Candidate Starts for Bimmel\_27:

(Start: 8 @18732 has 1 MA's), (16, 18690), (46, 18489), (49, 18459), (70, 18315), (79, 18258), (91, 18162), (94, 18153), (103, 18108), (109, 18081),

Gene: Bircsak\_53 Start: 39877, Stop: 39356, Start Num: 29

Candidate Starts for Bircsak\_53:

(Start: 29 @39877 has 115 MA's), (Start: 37 @39853 has 23 MA's), (Start: 41 @39826 has 29 MA's), (Start: 44 @39814 has 4 MA's), (Start: 52 @39766 has 1 MA's), (67, 39667), (73, 39616), (87, 39520), (91, 39487), (95, 39469), (103, 39433), (110, 39403),

Gene: Blackmoor\_55 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Blackmoor\_55:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (101, 37565), (103, 37556), (119, 37490),

Gene: BlessJoy\_61 Start: 38261, Stop: 37629, Start Num: 9

Candidate Starts for BlessJoy\_61:

(Start: 9 @38261 has 573 MA's), (Start: 21 @38168 has 22 MA's), (Start: 37 @38114 has 23 MA's), (Start: 47 @38057 has 1 MA's), (61, 37973), (69, 37913), (87, 37787), (91, 37754), (95, 37736), (103, 37700), (108, 37682), (110, 37670), (111, 37667),

Gene: Blinn1\_63 Start: 37853, Stop: 37221, Start Num: 9

Candidate Starts for Blinn1\_63:

(Start: 9 @37853 has 573 MA's), (Start: 21 @37760 has 22 MA's), (Start: 37 @37706 has 23 MA's), (Start: 47 @37649 has 1 MA's), (60, 37571), (69, 37505), (82, 37424), (87, 37379), (91, 37346), (95, 37328), (103, 37292), (110, 37262), (111, 37259),

Gene: BluSpix\_53 Start: 35139, Stop: 34618, Start Num: 29

Candidate Starts for BluSpix\_53:

(Start: 29 @35139 has 115 MA's), (Start: 37 @35115 has 23 MA's), (Start: 41 @35088 has 29 MA's), (Start: 44 @35076 has 4 MA's), (Start: 52 @35028 has 1 MA's), (67, 34929), (73, 34878), (87, 34782), (91, 34749), (95, 34731), (103, 34695), (110, 34665),

Gene: Blue\_54 Start: 39850, Stop: 39269, Start Num: 20

Candidate Starts for Blue\_54:

(Start: 20 @39850 has 38 MA's), (Start: 29 @39793 has 115 MA's), (Start: 37 @39769 has 23 MA's), (Start: 41 @39742 has 29 MA's), (Start: 44 @39730 has 4 MA's), (Start: 52 @39682 has 1 MA's), (67, 39583), (73, 39532), (87, 39436), (88, 39433), (91, 39403), (95, 39385), (103, 39349), (110, 39316), (111, 39313),

Gene: Blue7\_62 Start: 37782, Stop: 37297, Start Num: 37

Candidate Starts for Blue7\_62:

(Start: 9 @37929 has 573 MA's), (Start: 21 @37836 has 22 MA's), (Start: 37 @37782 has 23 MA's), (Start: 47 @37725 has 1 MA's), (61, 37641), (69, 37581), (87, 37455), (91, 37422), (95, 37404), (103, 37368), (108, 37350), (110, 37338), (111, 37335),

Gene: BlueBird\_60 Start: 38549, Stop: 37890, Start Num: 9

Candidate Starts for BlueBird\_60:

(Start: 9 @38549 has 573 MA's), (Start: 21 @38456 has 22 MA's), (Start: 33 @38402 has 2 MA's), (Start: 37 @38390 has 23 MA's), (Start: 41 @38363 has 29 MA's), (Start: 45 @38348 has 1 MA's), (Start: 53 @38300 has 4 MA's), (60, 38243), (68, 38195), (79, 38117), (82, 38096), (83, 38081), (95, 38000), (103, 37964), (108, 37946), (119, 37898),

Gene: Bluefalcon\_52 Start: 38705, Stop: 38043, Start Num: 9

Candidate Starts for Bluefalcon\_52:

(Start: 9 @38705 has 573 MA's), (Start: 21 @38612 has 22 MA's), (Start: 25 @38594 has 1 MA's), (Start: 33 @38552 has 2 MA's), (Start: 37 @38540 has 23 MA's), (Start: 41 @38513 has 29 MA's), (Start: 44 @38501 has 4 MA's), (69, 38336), (80, 38270), (83, 38240), (87, 38210), (89, 38204), (91, 38177), (101, 38132), (103, 38123), (108, 38105), (110, 38093), (111, 38090),

Gene: Bob3\_53 Start: 37824, Stop: 37246, Start Num: 20

Candidate Starts for Bob3\_53:

(Start: 20 @37824 has 38 MA's), (Start: 29 @37767 has 115 MA's), (Start: 37 @37743 has 23 MA's), (Start: 41 @37716 has 29 MA's), (Start: 44 @37704 has 4 MA's), (Start: 52 @37656 has 1 MA's), (73, 37506), (87, 37410), (88, 37407), (91, 37377), (95, 37359), (103, 37323), (110, 37293),

Gene: BobSwaget\_55 Start: 37808, Stop: 37176, Start Num: 9

Candidate Starts for BobSwaget\_55:

(Start: 9 @37808 has 573 MA's), (Start: 21 @37715 has 22 MA's), (Start: 37 @37661 has 23 MA's), (Start: 41 @37634 has 29 MA's), (60, 37526), (61, 37520), (69, 37460), (82, 37379), (87, 37334), (91, 37301), (95, 37283), (103, 37247),

Gene: BobbyDazzler\_48 Start: 35140, Stop: 34667, Start Num: 41

Candidate Starts for BobbyDazzler\_48:

(Start: 9 @35326 has 573 MA's), (Start: 26 @35203 has 3 MA's), (Start: 37 @35167 has 23 MA's), (Start: 41 @35140 has 29 MA's), (Start: 47 @35110 has 1 MA's), (Start: 52 @35080 has 1 MA's), (Start: 53 @35077 has 4 MA's), (54, 35071), (60, 35020), (67, 34975), (69, 34954), (80, 34888), (108, 34723), (111, 34708),

Gene: BogosyJay\_58 Start: 38871, Stop: 38245, Start Num: 9

Candidate Starts for BogosyJay\_58:

(Start: 9 @38871 has 573 MA's), (Start: 21 @38778 has 22 MA's), (Start: 37 @38730 has 23 MA's), (Start: 41 @38703 has 29 MA's), (60, 38595), (69, 38529), (82, 38448), (87, 38403), (103, 38316),

Gene: Bombshell\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Bombshell\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Bonamassa\_53 Start: 38579, Stop: 37920, Start Num: 9

Candidate Starts for Bonamassa\_53:

(Start: 9 @38579 has 573 MA's), (Start: 21 @38486 has 22 MA's), (Start: 25 @38468 has 1 MA's), (Start: 33 @38426 has 2 MA's), (Start: 37 @38414 has 23 MA's), (Start: 41 @38387 has 29 MA's), (Start: 44 @38375 has 4 MA's), (69, 38213), (80, 38147), (81, 38138), (83, 38117), (86, 38102), (87, 38087), (89, 38081), (91, 38054), (95, 38036), (101, 38009), (103, 38000), (108, 37982), (110, 37970), (111, 37967),

Gene: Bonanza\_48 Start: 35251, Stop: 34592, Start Num: 9

Candidate Starts for Bonanza\_48:

(Start: 9 @35251 has 573 MA's), (Start: 26 @35128 has 3 MA's), (Start: 37 @35092 has 23 MA's), (Start: 41 @35065 has 29 MA's), (Start: 47 @35035 has 1 MA's), (Start: 52 @35005 has 1 MA's), (Start: 53 @35002 has 4 MA's), (54, 34996), (60, 34945), (67, 34900), (69, 34879), (80, 34813), (108, 34648), (111, 34633),

Gene: Boohoo\_66 Start: 38505, Stop: 37873, Start Num: 9

Candidate Starts for Boohoo\_66:

(Start: 9 @38505 has 573 MA's), (Start: 13 @38487 has 45 MA's), (Start: 21 @38412 has 22 MA's), (Start: 41 @38334 has 29 MA's), (Start: 45 @38319 has 1 MA's), (Start: 47 @38304 has 1 MA's), (66, 38184), (67, 38181), (78, 38109), (82, 38079), (91, 38001), (103, 37947),

Gene: Bovely\_39 Start: 27838, Stop: 28488, Start Num: 9

Candidate Starts for Bovely\_39:

(Start: 7 @27823 has 37 MA's), (Start: 9 @27838 has 573 MA's), (11, 27841), (Start: 37 @27982 has 23 MA's), (Start: 53 @28066 has 4 MA's), (60, 28123), (61, 28129), (63, 28150), (64, 28159), (71, 28195), (73, 28219), (76, 28231), (78, 28240), (79, 28249), (84, 28294), (102, 28396), (107, 28417), (117, 28465),

Gene: Bowden\_40 Start: 29279, Stop: 29941, Start Num: 6

Candidate Starts for Bowden\_40:

(Start: 6 @29279 has 32 MA's), (15, 29327), (17, 29342), (22, 29390), (Start: 43 @29480 has 1 MA's), (Start: 53 @29525 has 4 MA's), (63, 29609), (82, 29729), (84, 29753), (109, 29888), (115, 29909), (117, 29921),

Gene: Bowtie\_60 Start: 38667, Stop: 38020, Start Num: 9

Candidate Starts for Bowtie\_60:

(Start: 9 @38667 has 573 MA's), (Start: 21 @38574 has 22 MA's), (Start: 37 @38520 has 23 MA's), (Start: 41 @38493 has 29 MA's), (Start: 47 @38463 has 1 MA's), (61, 38367), (69, 38307), (80, 38241), (82, 38226), (87, 38181), (90, 38172), (91, 38148), (103, 38094), (111, 38061),

Gene: Bradman\_59 Start: 38259, Stop: 37627, Start Num: 9

Candidate Starts for Bradman\_59:

(Start: 9 @38259 has 573 MA's), (Start: 21 @38166 has 22 MA's), (Start: 24 @38151 has 2 MA's), (Start: 37 @38112 has 23 MA's), (Start: 41 @38085 has 29 MA's), (Start: 47 @38055 has 1 MA's), (60, 37977), (67, 37932), (69, 37911), (82, 37830), (87, 37785), (91, 37752), (95, 37734), (103, 37698),

Gene: Bradshaw\_48 Start: 35280, Stop: 34621, Start Num: 9

Candidate Starts for Bradshaw\_48:

(Start: 9 @35280 has 573 MA's), (Start: 26 @35157 has 3 MA's), (Start: 37 @35121 has 23 MA's), (Start: 41 @35094 has 29 MA's), (Start: 47 @35064 has 1 MA's), (Start: 52 @35034 has 1 MA's), (Start: 53 @35031 has 4 MA's), (54, 35025), (60, 34974), (67, 34929), (69, 34908), (79, 34848), (80, 34842), (108, 34677), (111, 34662),

Gene: Brataylor\_42 Start: 29162, Stop: 29827, Start Num: 7

Candidate Starts for Brataylor\_42:

(Start: 7 @29162 has 37 MA's), (Start: 9 @29177 has 573 MA's), (11, 29180), (Start: 53 @29405 has 4 MA's), (60, 29462), (61, 29468), (63, 29489), (64, 29498), (71, 29534), (73, 29558), (75, 29564), (76, 29570), (78, 29579), (79, 29588), (84, 29633), (87, 29654), (107, 29756), (117, 29804),

Gene: BreSam8\_62 Start: 38892, Stop: 38233, Start Num: 9

Candidate Starts for BreSam8\_62:

(Start: 9 @38892 has 573 MA's), (Start: 21 @38799 has 22 MA's), (Start: 33 @38745 has 2 MA's), (Start: 37 @38733 has 23 MA's), (Start: 41 @38706 has 29 MA's), (60, 38586), (76, 38478), (79, 38460), (80, 38454), (95, 38343), (103, 38307), (108, 38289), (110, 38277),

Gene: Briton15\_58 Start: 39343, Stop: 38933, Start Num: 52

Candidate Starts for Briton15\_58:

(Start: 29 @39454 has 115 MA's), (Start: 37 @39430 has 23 MA's), (Start: 41 @39403 has 29 MA's), (Start: 44 @39391 has 4 MA's), (Start: 52 @39343 has 1 MA's), (73, 39193), (87, 39097), (91, 39064), (95, 39046), (99, 39034), (103, 39010), (110, 38980),

Gene: BroPlease\_40 Start: 28319, Stop: 28963, Start Num: 9

Candidate Starts for BroPlease\_40:

(Start: 9 @28319 has 573 MA's), (15, 28349), (Start: 43 @28502 has 1 MA's), (63, 28631), (79, 28730), (82, 28751), (84, 28775), (89, 28802), (107, 28898),

Gene: Broseidon\_55 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Broseidon\_55:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (101, 37565), (103, 37556), (119, 37490),

Gene: BruceLethal\_30 Start: 21333, Stop: 20662, Start Num: 13

Candidate Starts for BruceLethal\_30:

(Start: 13 @21333 has 45 MA's), (Start: 47 @21120 has 1 MA's), (Start: 53 @21081 has 4 MA's), (64, 20988), (67, 20979), (69, 20958), (73, 20928), (93, 20793), (101, 20751), (113, 20694), (118, 20673),

Gene: Bruiser\_54 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Bruiser\_54:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Bruns\_54 Start: 38335, Stop: 37814, Start Num: 29

Candidate Starts for Bruns\_54:

(Start: 29 @38335 has 115 MA's), (Start: 37 @38311 has 23 MA's), (Start: 41 @38284 has 29 MA's), (Start: 44 @38272 has 4 MA's), (Start: 52 @38224 has 1 MA's), (73, 38074), (87, 37978), (91, 37945), (95, 37927), (103, 37891), (110, 37861),

Gene: BryanRecycles\_40 Start: 28336, Stop: 28842, Start Num: 37

Candidate Starts for BryanRecycles\_40:

(Start: 7 @28177 has 37 MA's), (Start: 9 @28192 has 573 MA's), (11, 28195), (Start: 37 @28336 has 23 MA's), (Start: 53 @28420 has 4 MA's), (60, 28477), (61, 28483), (63, 28504), (64, 28513), (71, 28549), (73, 28573), (76, 28585), (77, 28588), (78, 28594), (79, 28603), (84, 28648), (87, 28669), (102, 28750), (107, 28771), (117, 28819),

Gene: Bryce\_47 Start: 35034, Stop: 34375, Start Num: 9

Candidate Starts for Bryce\_47:

(Start: 9 @35034 has 573 MA's), (Start: 26 @34911 has 3 MA's), (Start: 37 @34875 has 23 MA's), (Start: 41 @34848 has 29 MA's), (Start: 47 @34818 has 1 MA's), (Start: 52 @34788 has 1 MA's), (Start: 53 @34785 has 4 MA's), (54, 34779), (60, 34728), (67, 34683), (69, 34662), (80, 34596), (108, 34431), (111, 34416),

Gene: BubbleTrouble\_54 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for BubbleTrouble\_54:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Bud\_59 Start: 38214, Stop: 37567, Start Num: 9

Candidate Starts for Bud\_59:

(Start: 9 @38214 has 573 MA's), (Start: 21 @38121 has 22 MA's), (Start: 37 @38067 has 23 MA's), (Start: 41 @38040 has 29 MA's), (Start: 47 @38010 has 1 MA's), (61, 37914), (69, 37854), (80, 37788), (82, 37773), (87, 37728), (90, 37719), (91, 37695), (103, 37641), (111, 37608),

Gene: Bugatti\_59 Start: 38549, Stop: 37890, Start Num: 9

Candidate Starts for Bugatti\_59:

(Start: 9 @38549 has 573 MA's), (Start: 21 @38456 has 22 MA's), (Start: 33 @38402 has 2 MA's), (Start: 37 @38390 has 23 MA's), (Start: 41 @38363 has 29 MA's), (Start: 45 @38348 has 1 MA's), (Start: 53 @38300 has 4 MA's), (60, 38243), (68, 38195), (79, 38117), (82, 38096), (83, 38081), (95, 38000), (103, 37964), (108, 37946), (119, 37898),

Gene: Buggy\_61 Start: 39458, Stop: 38826, Start Num: 9

Candidate Starts for Buggy\_61:

(Start: 9 @39458 has 573 MA's), (Start: 21 @39365 has 22 MA's), (Start: 37 @39311 has 23 MA's), (Start: 47 @39254 has 1 MA's), (61, 39170), (69, 39110), (79, 39050), (87, 38984), (91, 38951), (103, 38897),

Gene: Bumblebee11\_53 Start: 38092, Stop: 37433, Start Num: 9

Candidate Starts for Bumblebee11\_53:

(Start: 9 @38092 has 573 MA's), (Start: 21 @37999 has 22 MA's), (Start: 25 @37981 has 1 MA's), (Start: 33 @37945 has 2 MA's), (Start: 37 @37933 has 23 MA's), (Start: 41 @37906 has 29 MA's), (Start: 45 @37891 has 1 MA's), (60, 37786), (79, 37660), (82, 37639), (83, 37624), (95, 37543), (103, 37507), (119, 37441),

Gene: Burger\_53 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Burger\_53:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Burton\_55 Start: 39563, Stop: 38919, Start Num: 12

Candidate Starts for Burton\_55:

(Start: 12 @39563 has 28 MA's), (Start: 29 @39440 has 115 MA's), (Start: 41 @39389 has 29 MA's), (Start: 44 @39377 has 4 MA's), (58, 39296), (63, 39248), (68, 39227), (69, 39209), (79, 39149), (87, 39083), (91, 39050), (95, 39032), (103, 38996), (110, 38966), (111, 38963),

Gene: Buttons\_53 Start: 37341, Stop: 36763, Start Num: 20

Candidate Starts for Buttons\_53:

(Start: 20 @37341 has 38 MA's), (Start: 29 @37284 has 115 MA's), (Start: 37 @37260 has 23 MA's), (Start: 41 @37233 has 29 MA's), (Start: 44 @37221 has 4 MA's), (Start: 52 @37173 has 1 MA's), (67, 37074), (73, 37023), (87, 36927), (91, 36894), (95, 36876), (103, 36840), (110, 36810), (114, 36795),

Gene: BuzzBuzz\_59 Start: 38926, Stop: 38267, Start Num: 9

Candidate Starts for BuzzBuzz\_59:

(Start: 9 @38926 has 573 MA's), (Start: 21 @38833 has 22 MA's), (Start: 33 @38779 has 2 MA's), (Start: 37 @38767 has 23 MA's), (Start: 41 @38740 has 29 MA's), (60, 38620), (76, 38512), (79, 38494), (80, 38488), (95, 38377), (103, 38341), (108, 38323), (110, 38311),

Gene: Bxb1\_50 Start: 37984, Stop: 37511, Start Num: 41

Candidate Starts for Bxb1\_50:

(Start: 29 @38035 has 115 MA's), (Start: 37 @38011 has 23 MA's), (Start: 41 @37984 has 29 MA's), (Start: 44 @37972 has 4 MA's), (Start: 52 @37924 has 1 MA's), (73, 37774), (87, 37678), (91, 37645), (95, 37627), (103, 37591), (110, 37558), (111, 37555),

Gene: Bxz2\_57 Start: 38747, Stop: 38274, Start Num: 41

Candidate Starts for Bxz2\_57:

(Start: 9 @38933 has 573 MA's), (Start: 21 @38840 has 22 MA's), (Start: 33 @38786 has 2 MA's), (Start: 37 @38774 has 23 MA's), (Start: 41 @38747 has 29 MA's), (60, 38627), (76, 38519), (79, 38501), (80, 38495), (95, 38384), (103, 38348), (108, 38330), (110, 38318),

Gene: C3\_57 Start: 39337, Stop: 38705, Start Num: 9

Candidate Starts for C3\_57:



(Start: 9 @39337 has 573 MA's), (Start: 21 @39244 has 22 MA's), (Start: 37 @39190 has 23 MA's), (Start: 41 @39163 has 29 MA's), (Start: 47 @39133 has 1 MA's), (60, 39055), (61, 39049), (69, 38989), (82, 38908), (87, 38863), (91, 38830), (95, 38812), (103, 38776),

Gene: CRB1\_63 Start: 39723, Stop: 39238, Start Num: 37

Candidate Starts for CRB1\_63:

(Start: 21 @39777 has 22 MA's), (Start: 37 @39723 has 23 MA's), (Start: 47 @39666 has 1 MA's), (61, 39582), (69, 39522), (79, 39462), (87, 39396), (91, 39363), (95, 39345), (103, 39309),

Gene: CactusRose\_52 Start: 38569, Stop: 38048, Start Num: 29

Candidate Starts for CactusRose\_52:

(Start: 29 @38569 has 115 MA's), (Start: 37 @38545 has 23 MA's), (Start: 41 @38518 has 29 MA's), (Start: 44 @38506 has 4 MA's), (Start: 52 @38458 has 1 MA's), (67, 38359), (73, 38308), (87, 38212), (88, 38209), (91, 38179), (95, 38161), (103, 38125), (110, 38095),

Gene: Caelakin\_55 Start: 37992, Stop: 37480, Start Num: 33

Candidate Starts for Caelakin\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Caelum\_41 Start: 28977, Stop: 29639, Start Num: 6

Candidate Starts for Caelum\_41:

(Start: 6 @28977 has 32 MA's), (15, 29025), (Start: 43 @29178 has 1 MA's), (63, 29307), (64, 29316), (82, 29427), (84, 29451), (87, 29472), (102, 29553), (107, 29571), (109, 29586), (115, 29607), (117, 29619),

Gene: Caliburn\_39 Start: 27959, Stop: 28465, Start Num: 37

Candidate Starts for Caliburn\_39:

(Start: 7 @27800 has 37 MA's), (Start: 9 @27815 has 573 MA's), (11, 27818), (Start: 37 @27959 has 23 MA's), (Start: 53 @28043 has 4 MA's), (60, 28100), (61, 28106), (63, 28127), (64, 28136), (71, 28172), (73, 28196), (76, 28208), (78, 28217), (79, 28226), (84, 28271), (102, 28373), (107, 28394), (117, 28442),

Gene: Calvinny\_62 Start: 38691, Stop: 38125, Start Num: 21

Candidate Starts for Calvinny\_62:

(Start: 9 @38784 has 573 MA's), (Start: 21 @38691 has 22 MA's), (Start: 33 @38637 has 2 MA's), (Start: 37 @38625 has 23 MA's), (Start: 41 @38598 has 29 MA's), (60, 38478), (76, 38370), (79, 38352), (80, 38346), (91, 38253), (95, 38235), (103, 38199), (108, 38181), (110, 38169),

Gene: Camperdownii\_53 Start: 37813, Stop: 37154, Start Num: 9

Candidate Starts for Camperdownii\_53:

(Start: 9 @37813 has 573 MA's), (Start: 21 @37720 has 22 MA's), (Start: 25 @37702 has 1 MA's), (Start: 33 @37666 has 2 MA's), (Start: 37 @37654 has 23 MA's), (Start: 41 @37627 has 29 MA's), (Start: 45 @37612 has 1 MA's), (60, 37507), (79, 37381), (80, 37375), (82, 37360), (83, 37345), (95, 37264), (101, 37237), (103, 37228), (119, 37162),

Gene: Candra\_59 Start: 37754, Stop: 37122, Start Num: 9

Candidate Starts for Candra\_59:

(Start: 9 @37754 has 573 MA's), (Start: 21 @37661 has 22 MA's), (Start: 37 @37607 has 23 MA's), (Start: 47 @37550 has 1 MA's), (60, 37472), (69, 37406), (82, 37325), (87, 37280), (91, 37247), (95, 37229), (103, 37193), (110, 37163), (111, 37160),

Gene: Caraxes\_59 Start: 37576, Stop: 36944, Start Num: 9

Candidate Starts for Caraxes\_59:

(Start: 9 @37576 has 573 MA's), (Start: 21 @37483 has 22 MA's), (Start: 37 @37429 has 23 MA's), (Start: 41 @37402 has 29 MA's), (Start: 47 @37372 has 1 MA's), (60, 37294), (76, 37186), (81, 37153), (82, 37147), (83, 37132), (87, 37102), (90, 37093), (91, 37069), (95, 37051), (103, 37015),

Gene: Carlyle\_53 Start: 36628, Stop: 36050, Start Num: 20

Candidate Starts for Carlyle\_53:

(Start: 20 @36628 has 38 MA's), (Start: 29 @36571 has 115 MA's), (Start: 37 @36547 has 23 MA's), (Start: 41 @36520 has 29 MA's), (Start: 44 @36508 has 4 MA's), (Start: 52 @36460 has 1 MA's), (73, 36310), (87, 36214), (91, 36181), (95, 36163), (103, 36127), (110, 36097),

Gene: Catalina\_60 Start: 38687, Stop: 38226, Start Num: 41

Candidate Starts for Catalina\_60:

(Start: 9 @38855 has 573 MA's), (Start: 21 @38762 has 22 MA's), (Start: 26 @38738 has 3 MA's), (Start: 37 @38714 has 23 MA's), (Start: 41 @38687 has 29 MA's), (Start: 45 @38672 has 1 MA's), (60, 38576), (61, 38570), (67, 38531), (69, 38510), (80, 38444), (87, 38384), (91, 38351), (103, 38297),

Gene: Caviar\_57 Start: 38514, Stop: 37852, Start Num: 9

Candidate Starts for Caviar\_57:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: Celery\_43 Start: 29883, Stop: 30305, Start Num: 53

Candidate Starts for Celery\_43:

(Start: 7 @29640 has 37 MA's), (Start: 9 @29655 has 573 MA's), (Start: 53 @29883 has 4 MA's), (60, 29940), (61, 29946), (63, 29967), (64, 29976), (73, 30036), (74, 30039), (76, 30048), (84, 30111), (102, 30213), (107, 30234), (117, 30282),

Gene: Celeste\_40 Start: 28631, Stop: 29296, Start Num: 7

Candidate Starts for Celeste\_40:

(Start: 7 @28631 has 37 MA's), (Start: 9 @28646 has 573 MA's), (11, 28649), (Start: 53 @28874 has 4 MA's), (60, 28931), (61, 28937), (63, 28958), (64, 28967), (71, 29003), (73, 29027), (76, 29039), (78, 29048), (79, 29057), (84, 29102), (87, 29123), (102, 29204), (107, 29225), (117, 29273),

Gene: Celia\_41 Start: 28888, Stop: 29397, Start Num: 36

Candidate Starts for Celia\_41:

(Start: 7 @28732 has 37 MA's), (Start: 9 @28747 has 573 MA's), (Start: 36 @28888 has 2 MA's), (60, 29032), (73, 29128), (84, 29203), (102, 29305), (107, 29326), (109, 29341),

Gene: Centaur\_60 Start: 39093, Stop: 38461, Start Num: 9

Candidate Starts for Centaur\_60:

(Start: 9 @39093 has 573 MA's), (Start: 21 @39000 has 22 MA's), (Start: 37 @38946 has 23 MA's), (Start: 47 @38889 has 1 MA's), (57, 38835), (60, 38811), (61, 38805), (69, 38745), (79, 38685), (82, 38664), (87, 38619), (91, 38586), (103, 38532),

Gene: CentreCat\_55 Start: 38142, Stop: 37483, Start Num: 9

Candidate Starts for CentreCat\_55:

(Start: 9 @38142 has 573 MA's), (Start: 21 @38049 has 22 MA's), (Start: 25 @38031 has 1 MA's), (Start: 33 @37995 has 2 MA's), (Start: 37 @37983 has 23 MA's), (Start: 41 @37956 has 29 MA's),

(Start: 45 @37941 has 1 MA's), (60, 37836), (79, 37710), (80, 37704), (82, 37689), (83, 37674), (95, 37593), (101, 37566), (103, 37557), (119, 37491),

Gene: Cerulean\_56 Start: 38543, Stop: 37884, Start Num: 9

Candidate Starts for Cerulean\_56:

(Start: 9 @38543 has 573 MA's), (Start: 21 @38450 has 22 MA's), (Start: 33 @38396 has 2 MA's), (Start: 37 @38384 has 23 MA's), (Start: 41 @38357 has 29 MA's), (Start: 45 @38342 has 1 MA's), (60, 38237), (79, 38111), (82, 38090), (83, 38075), (95, 37994), (101, 37967), (103, 37958), (119, 37892),

Gene: Chadwick\_57 Start: 38363, Stop: 37701, Start Num: 9

Candidate Starts for Chadwick\_57:

(Start: 9 @38363 has 573 MA's), (Start: 21 @38270 has 22 MA's), (Start: 25 @38252 has 1 MA's), (Start: 33 @38210 has 2 MA's), (Start: 37 @38198 has 23 MA's), (Start: 41 @38171 has 29 MA's), (Start: 44 @38159 has 4 MA's), (Start: 45 @38156 has 1 MA's), (69, 37994), (80, 37928), (81, 37919), (83, 37898), (87, 37868), (89, 37862), (91, 37835), (95, 37817), (101, 37790), (103, 37781), (108, 37763), (110, 37751), (111, 37748),

Gene: ChampagnePapi\_57 Start: 38542, Stop: 37883, Start Num: 9

Candidate Starts for ChampagnePapi\_57:

(Start: 9 @38542 has 573 MA's), (Start: 21 @38449 has 22 MA's), (Start: 33 @38395 has 2 MA's), (Start: 37 @38383 has 23 MA's), (Start: 41 @38356 has 29 MA's), (Start: 45 @38341 has 1 MA's), (60, 38236), (79, 38110), (82, 38089), (83, 38074), (95, 37993), (101, 37966), (103, 37957), (119, 37891),

Gene: Chanagan\_51 Start: 37492, Stop: 36848, Start Num: 12

Candidate Starts for Chanagan\_51:

(Start: 12 @37492 has 28 MA's), (Start: 29 @37369 has 115 MA's), (Start: 41 @37318 has 29 MA's), (Start: 44 @37306 has 4 MA's), (63, 37177), (68, 37156), (69, 37138), (87, 37012), (91, 36979), (95, 36961), (103, 36925), (110, 36895), (111, 36892),

Gene: Changeling\_58 Start: 39509, Stop: 38877, Start Num: 9

Candidate Starts for Changeling\_58:

(Start: 9 @39509 has 573 MA's), (Start: 21 @39416 has 22 MA's), (30, 39380), (Start: 37 @39362 has 23 MA's), (Start: 47 @39305 has 1 MA's), (60, 39227), (61, 39221), (67, 39182), (69, 39161), (82, 39080), (87, 39035), (91, 39002), (95, 38984), (103, 38948),

Gene: Chaph\_55 Start: 38150, Stop: 37491, Start Num: 9

Candidate Starts for Chaph\_55:

(Start: 9 @38150 has 573 MA's), (Start: 21 @38057 has 22 MA's), (Start: 25 @38039 has 1 MA's), (Start: 33 @38003 has 2 MA's), (Start: 37 @37991 has 23 MA's), (Start: 41 @37964 has 29 MA's), (Start: 45 @37949 has 1 MA's), (60, 37844), (79, 37718), (80, 37712), (82, 37697), (83, 37682), (95, 37601), (101, 37574), (103, 37565), (119, 37499),

Gene: Chargerpower\_57 Start: 37561, Stop: 36935, Start Num: 9

Candidate Starts for Chargerpower\_57:

(Start: 9 @37561 has 573 MA's), (Start: 21 @37468 has 22 MA's), (Start: 37 @37420 has 23 MA's), (60, 37285), (69, 37219), (76, 37177), (82, 37138), (87, 37093), (95, 37042), (103, 37006), (110, 36976), (111, 36973),

Gene: Charm\_57 Start: 38716, Stop: 38090, Start Num: 9

Candidate Starts for Charm\_57:

(Start: 9 @38716 has 573 MA's), (Start: 21 @38623 has 22 MA's), (Start: 37 @38575 has 23 MA's), (Start: 41 @38548 has 29 MA's), (60, 38440), (61, 38434), (69, 38374), (76, 38332), (82, 38293), (87, 38248), (103, 38161),

Gene: Chartreuse\_58 Start: 37105, Stop: 36473, Start Num: 9

Candidate Starts for Chartreuse\_58:

(Start: 9 @37105 has 573 MA's), (Start: 21 @37012 has 22 MA's), (Start: 37 @36958 has 23 MA's), (Start: 47 @36901 has 1 MA's), (60, 36823), (69, 36757), (82, 36676), (87, 36631), (91, 36598), (95, 36580), (103, 36544), (110, 36514), (111, 36511),

Gene: Che12\_60 Start: 37843, Stop: 37385, Start Num: 41

Candidate Starts for Che12\_60:

(Start: 9 @38017 has 573 MA's), (Start: 21 @37924 has 22 MA's), (Start: 37 @37870 has 23 MA's), (Start: 41 @37843 has 29 MA's), (Start: 47 @37813 has 1 MA's), (60, 37735), (81, 37594), (82, 37588), (83, 37573), (87, 37543), (90, 37534), (91, 37510), (95, 37492), (103, 37456),

Gene: ChipMunk\_61 Start: 40658, Stop: 40026, Start Num: 9

Candidate Starts for ChipMunk\_61:

(Start: 9 @40658 has 573 MA's), (Start: 21 @40565 has 22 MA's), (Start: 37 @40511 has 23 MA's), (Start: 47 @40454 has 1 MA's), (61, 40370), (69, 40310), (79, 40250), (87, 40184), (91, 40151), (103, 40097),

Gene: Chiqui\_55 Start: 38553, Stop: 37891, Start Num: 9

Candidate Starts for Chiqui\_55:

(Start: 9 @38553 has 573 MA's), (Start: 21 @38460 has 22 MA's), (Start: 33 @38406 has 2 MA's), (Start: 37 @38394 has 23 MA's), (Start: 41 @38367 has 29 MA's), (Start: 45 @38352 has 1 MA's), (Start: 53 @38304 has 4 MA's), (60, 38247), (68, 38199), (76, 38139), (79, 38121), (80, 38115), (82, 38100), (83, 38085), (95, 38004), (103, 37968), (108, 37950), (119, 37902),

Gene: Chucky\_39 Start: 28208, Stop: 28858, Start Num: 9

Candidate Starts for Chucky\_39:

(Start: 7 @28193 has 37 MA's), (Start: 9 @28208 has 573 MA's), (11, 28211), (Start: 37 @28352 has 23 MA's), (Start: 53 @28436 has 4 MA's), (60, 28493), (61, 28499), (63, 28520), (71, 28565), (73, 28589), (76, 28601), (78, 28610), (79, 28619), (84, 28664), (87, 28685), (102, 28766), (107, 28787), (117, 28835),

Gene: Chupacabra\_54 Start: 38028, Stop: 37369, Start Num: 9

Candidate Starts for Chupacabra\_54:

(Start: 9 @38028 has 573 MA's), (Start: 21 @37935 has 22 MA's), (Start: 37 @37869 has 23 MA's), (Start: 41 @37842 has 29 MA's), (Start: 53 @37779 has 4 MA's), (60, 37722), (68, 37674), (76, 37614), (79, 37596), (80, 37590), (82, 37575), (83, 37560), (101, 37452), (103, 37443), (108, 37425), (110, 37413), (119, 37377),

Gene: Ciao\_54 Start: 38691, Stop: 38221, Start Num: 41

Candidate Starts for Ciao\_54:

(Start: 29 @38742 has 115 MA's), (Start: 37 @38718 has 23 MA's), (Start: 41 @38691 has 29 MA's), (Start: 44 @38679 has 4 MA's), (Start: 52 @38631 has 1 MA's), (73, 38481), (87, 38385), (88, 38382), (91, 38352), (95, 38334), (103, 38298), (110, 38268),

Gene: Cici\_54 Start: 38107, Stop: 37448, Start Num: 9

Candidate Starts for Cici\_54:

(Start: 9 @38107 has 573 MA's), (Start: 21 @38014 has 22 MA's), (Start: 25 @37996 has 1 MA's), (Start: 33 @37960 has 2 MA's), (Start: 37 @37948 has 23 MA's), (Start: 41 @37921 has 29 MA's), (Start: 45 @37906 has 1 MA's), (60, 37801), (79, 37675), (82, 37654), (83, 37639), (95, 37558), (103, 37522), (119, 37456),

Gene: Cindaradix\_51 Start: 37736, Stop: 37077, Start Num: 9

Candidate Starts for Cindaradix\_51:

(Start: 9 @37736 has 573 MA's), (Start: 21 @37643 has 22 MA's), (Start: 25 @37625 has 1 MA's), (Start: 33 @37589 has 2 MA's), (Start: 37 @37577 has 23 MA's), (Start: 41 @37550 has 29 MA's), (Start: 45 @37535 has 1 MA's), (60, 37430), (79, 37304), (80, 37298), (82, 37283), (83, 37268), (95, 37187), (99, 37175), (101, 37160), (103, 37151), (119, 37085),

Gene: Cintron\_54 Start: 38116, Stop: 37457, Start Num: 9

Candidate Starts for Cintron\_54:

(Start: 9 @38116 has 573 MA's), (Start: 21 @38023 has 22 MA's), (Start: 25 @38005 has 1 MA's), (Start: 33 @37969 has 2 MA's), (Start: 37 @37957 has 23 MA's), (Start: 41 @37930 has 29 MA's), (Start: 45 @37915 has 1 MA's), (60, 37810), (79, 37684), (80, 37678), (82, 37663), (83, 37648), (95, 37567), (101, 37540), (103, 37531), (119, 37465),

Gene: Citius\_55 Start: 38160, Stop: 37501, Start Num: 9

Candidate Starts for Citius\_55:

(Start: 9 @38160 has 573 MA's), (Start: 21 @38067 has 22 MA's), (Start: 25 @38049 has 1 MA's), (Start: 33 @38013 has 2 MA's), (Start: 37 @38001 has 23 MA's), (Start: 41 @37974 has 29 MA's), (Start: 45 @37959 has 1 MA's), (60, 37854), (79, 37728), (80, 37722), (82, 37707), (83, 37692), (95, 37611), (101, 37584), (103, 37575), (119, 37509),

Gene: Clarenza\_54 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Clarenza\_54:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: CloudWang3\_61 Start: 37923, Stop: 37291, Start Num: 9

Candidate Starts for CloudWang3\_61:

(Start: 9 @37923 has 573 MA's), (Start: 21 @37830 has 22 MA's), (Start: 37 @37776 has 23 MA's), (Start: 47 @37719 has 1 MA's), (61, 37635), (69, 37575), (87, 37449), (91, 37416), (95, 37398), (103, 37362), (108, 37344), (110, 37332), (111, 37329),

Gene: Cocoaberry\_55 Start: 38143, Stop: 37484, Start Num: 9

Candidate Starts for Cocoaberry\_55:

(Start: 9 @38143 has 573 MA's), (Start: 21 @38050 has 22 MA's), (Start: 25 @38032 has 1 MA's), (Start: 33 @37996 has 2 MA's), (Start: 37 @37984 has 23 MA's), (Start: 41 @37957 has 29 MA's), (Start: 45 @37942 has 1 MA's), (60, 37837), (79, 37711), (80, 37705), (82, 37690), (83, 37675), (95, 37594), (101, 37567), (103, 37558), (119, 37492),

Gene: Colbster\_62 Start: 38902, Stop: 38243, Start Num: 9

Candidate Starts for Colbster\_62:

(Start: 9 @38902 has 573 MA's), (Start: 21 @38809 has 22 MA's), (Start: 33 @38755 has 2 MA's), (Start: 37 @38743 has 23 MA's), (Start: 41 @38716 has 29 MA's), (60, 38596), (76, 38488), (79, 38470), (80, 38464), (95, 38353), (103, 38317), (108, 38299), (110, 38287),

Gene: Colin\_58 Start: 39224, Stop: 38592, Start Num: 9

Candidate Starts for Colin\_58:

(Start: 9 @39224 has 573 MA's), (Start: 21 @39131 has 22 MA's), (Start: 37 @39077 has 23 MA's), (Start: 41 @39050 has 29 MA's), (Start: 45 @39035 has 1 MA's), (Start: 47 @39020 has 1 MA's), (61, 38936), (69, 38876), (80, 38810), (87, 38750), (91, 38717), (95, 38699), (103, 38663),

Gene: Commander\_55 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for Commander\_55:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: Conan\_41 Start: 29601, Stop: 30266, Start Num: 7

Candidate Starts for Conan\_41:

(Start: 7 @29601 has 37 MA's), (Start: 9 @29616 has 573 MA's), (Start: 53 @29844 has 4 MA's), (60, 29901), (61, 29907), (63, 29928), (64, 29937), (73, 29997), (74, 30000), (76, 30009), (84, 30072), (87, 30093), (102, 30174), (107, 30195),

Gene: Conceptll\_57 Start: 40854, Stop: 40210, Start Num: 12

Candidate Starts for Conceptll\_57:

(Start: 12 @40854 has 28 MA's), (Start: 29 @40731 has 115 MA's), (Start: 41 @40680 has 29 MA's), (Start: 44 @40668 has 4 MA's), (58, 40587), (63, 40539), (68, 40518), (69, 40500), (79, 40440), (87, 40374), (91, 40341), (95, 40323), (103, 40287), (110, 40257),

Gene: Connomayer\_55 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Connomayer\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Conquerage\_59 Start: 38758, Stop: 38297, Start Num: 41

Candidate Starts for Conquerage\_59:

(Start: 9 @38926 has 573 MA's), (Start: 21 @38833 has 22 MA's), (Start: 26 @38809 has 3 MA's), (Start: 37 @38785 has 23 MA's), (Start: 41 @38758 has 29 MA's), (Start: 45 @38743 has 1 MA's), (60, 38647), (61, 38641), (67, 38602), (69, 38581), (80, 38515), (87, 38455), (91, 38422), (103, 38368),

Gene: Conspiracy\_53 Start: 38372, Stop: 37713, Start Num: 9

Candidate Starts for Conspiracy\_53:

(Start: 9 @38372 has 573 MA's), (Start: 21 @38279 has 22 MA's), (Start: 25 @38261 has 1 MA's), (Start: 33 @38219 has 2 MA's), (Start: 37 @38207 has 23 MA's), (Start: 41 @38180 has 29 MA's), (Start: 44 @38168 has 4 MA's), (69, 38006), (80, 37940), (83, 37910), (87, 37880), (89, 37874), (91, 37847), (95, 37829), (101, 37802), (103, 37793), (108, 37775), (110, 37763), (111, 37760),

Gene: Coog\_52 Start: 38566, Stop: 37907, Start Num: 9

Candidate Starts for Coog\_52:

(Start: 9 @38566 has 573 MA's), (Start: 21 @38473 has 22 MA's), (Start: 25 @38455 has 1 MA's), (Start: 33 @38413 has 2 MA's), (Start: 37 @38401 has 23 MA's), (Start: 41 @38374 has 29 MA's), (Start: 44 @38362 has 4 MA's), (Start: 45 @38359 has 1 MA's), (69, 38200), (80, 38134), (81, 38125), (83, 38104), (86, 38089), (87, 38074), (89, 38068), (91, 38041), (95, 38023), (101, 37996), (103, 37987), (108, 37969), (110, 37957), (111, 37954),

Gene: Cookiedough\_60 Start: 37733, Stop: 37101, Start Num: 9

Candidate Starts for Cookiedough\_60:

(Start: 9 @37733 has 573 MA's), (Start: 21 @37640 has 22 MA's), (Start: 37 @37586 has 23 MA's), (Start: 47 @37529 has 1 MA's), (60, 37451), (69, 37385), (82, 37304), (87, 37259), (91, 37226), (95, 37208), (103, 37172), (110, 37142), (111, 37139),

Gene: Corvo\_55 Start: 40187, Stop: 39666, Start Num: 29

Candidate Starts for Corvo\_55:

(Start: 29 @40187 has 115 MA's), (Start: 37 @40163 has 23 MA's), (Start: 41 @40136 has 29 MA's), (Start: 44 @40124 has 4 MA's), (Start: 52 @40076 has 1 MA's), (73, 39926), (87, 39830), (91, 39797), (95, 39779), (103, 39743), (110, 39713),

Gene: CosmicSans\_48 Start: 35094, Stop: 34621, Start Num: 41

Candidate Starts for CosmicSans\_48:

(Start: 9 @35280 has 573 MA's), (Start: 26 @35157 has 3 MA's), (Start: 37 @35121 has 23 MA's), (Start: 41 @35094 has 29 MA's), (Start: 47 @35064 has 1 MA's), (Start: 52 @35034 has 1 MA's), (Start: 53 @35031 has 4 MA's), (54, 35025), (60, 34974), (67, 34929), (69, 34908), (79, 34848), (80, 34842), (108, 34677), (111, 34662),

Gene: Cota\_30 Start: 21373, Stop: 20702, Start Num: 13

Candidate Starts for Cota\_30:

(Start: 13 @21373 has 45 MA's), (Start: 47 @21160 has 1 MA's), (Start: 53 @21121 has 4 MA's), (64, 21028), (67, 21019), (69, 20998), (73, 20968), (93, 20833), (101, 20791), (113, 20734), (118, 20713),

Gene: Crispicious1\_52 Start: 37694, Stop: 37173, Start Num: 29

Candidate Starts for Crispicious1\_52:

(Start: 29 @37694 has 115 MA's), (Start: 37 @37670 has 23 MA's), (Start: 41 @37643 has 29 MA's), (Start: 44 @37631 has 4 MA's), (Start: 52 @37583 has 1 MA's), (73, 37433), (87, 37337), (91, 37304), (95, 37286), (103, 37250), (110, 37220),

Gene: Crucio\_59 Start: 39075, Stop: 38443, Start Num: 9

Candidate Starts for Crucio\_59:

(Start: 9 @39075 has 573 MA's), (Start: 21 @38982 has 22 MA's), (Start: 37 @38928 has 23 MA's), (Start: 47 @38871 has 1 MA's), (69, 38727), (79, 38667), (87, 38601), (91, 38568), (95, 38550), (103, 38514),

Gene: Cuco\_53 Start: 38426, Stop: 37767, Start Num: 9

Candidate Starts for Cuco\_53:

(Start: 9 @38426 has 573 MA's), (Start: 21 @38333 has 22 MA's), (Start: 25 @38315 has 1 MA's), (Start: 33 @38273 has 2 MA's), (Start: 37 @38261 has 23 MA's), (Start: 41 @38234 has 29 MA's), (Start: 44 @38222 has 4 MA's), (69, 38060), (80, 37994), (81, 37985), (83, 37964), (86, 37949), (87, 37934), (89, 37928), (91, 37901), (95, 37883), (101, 37856), (103, 37847), (108, 37829), (110, 37817), (111, 37814),

Gene: Cueyllyss\_56 Start: 40373, Stop: 39852, Start Num: 29

Candidate Starts for Cueyllyss\_56:

(Start: 29 @40373 has 115 MA's), (Start: 37 @40349 has 23 MA's), (Start: 41 @40322 has 29 MA's), (Start: 44 @40310 has 4 MA's), (Start: 52 @40262 has 1 MA's), (67, 40163), (73, 40112), (87, 40016), (88, 40013), (91, 39983), (95, 39965), (96, 39962), (103, 39929), (110, 39899), (111, 39896),

Gene: Cullens\_62 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for Cullens\_62:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's), (Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79, 38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: D29\_57 Start: 38727, Stop: 38269, Start Num: 41

Candidate Starts for D29\_57:

(Start: 9 @38901 has 573 MA's), (Start: 21 @38808 has 22 MA's), (Start: 37 @38754 has 23 MA's), (Start: 41 @38727 has 29 MA's), (Start: 47 @38697 has 1 MA's), (60, 38619), (61, 38613), (69, 38553), (82, 38472), (87, 38427), (91, 38394), (95, 38376), (103, 38340),

Gene: D32\_60 Start: 38901, Stop: 38269, Start Num: 9

Candidate Starts for D32\_60:

(Start: 9 @38901 has 573 MA's), (Start: 21 @38808 has 22 MA's), (Start: 37 @38754 has 23 MA's), (Start: 41 @38727 has 29 MA's), (Start: 47 @38697 has 1 MA's), (60, 38619), (61, 38613), (69, 38553), (82, 38472), (87, 38427), (91, 38394), (95, 38376), (103, 38340),

Gene: DBQu4n\_61 Start: 38882, Stop: 38250, Start Num: 9

Candidate Starts for DBQu4n\_61:

(Start: 9 @38882 has 573 MA's), (Start: 21 @38789 has 22 MA's), (Start: 37 @38735 has 23 MA's), (Start: 41 @38708 has 29 MA's), (Start: 47 @38678 has 1 MA's), (60, 38600), (61, 38594), (69, 38534), (82, 38453), (87, 38408), (91, 38375), (95, 38357), (103, 38321),

Gene: DD5\_54 Start: 39472, Stop: 39002, Start Num: 41

Candidate Starts for DD5\_54:

(Start: 29 @39523 has 115 MA's), (Start: 37 @39499 has 23 MA's), (Start: 41 @39472 has 29 MA's), (Start: 44 @39460 has 4 MA's), (Start: 52 @39412 has 1 MA's), (73, 39262), (87, 39166), (91, 39133), (95, 39115), (103, 39079), (110, 39049),

Gene: DaHudson\_62 Start: 38891, Stop: 38232, Start Num: 9

Candidate Starts for DaHudson\_62:

(Start: 9 @38891 has 573 MA's), (Start: 21 @38798 has 22 MA's), (Start: 33 @38744 has 2 MA's), (Start: 37 @38732 has 23 MA's), (Start: 41 @38705 has 29 MA's), (60, 38585), (76, 38477), (79, 38459), (80, 38453), (95, 38342), (103, 38306), (108, 38288), (110, 38276),

Gene: DaVinci\_59 Start: 37159, Stop: 36527, Start Num: 9

Candidate Starts for DaVinci\_59:

(Start: 9 @37159 has 573 MA's), (Start: 21 @37066 has 22 MA's), (Start: 37 @37012 has 23 MA's), (Start: 47 @36955 has 1 MA's), (60, 36877), (69, 36811), (82, 36730), (87, 36685), (91, 36652), (95, 36634), (103, 36598), (110, 36568), (111, 36565),

Gene: Daishi\_61 Start: 37767, Stop: 37108, Start Num: 9

Candidate Starts for Daishi\_61:

(Start: 9 @37767 has 573 MA's), (Start: 21 @37674 has 22 MA's), (Start: 33 @37620 has 2 MA's), (Start: 37 @37608 has 23 MA's), (Start: 41 @37581 has 29 MA's), (60, 37461), (76, 37353), (79, 37335), (80, 37329), (95, 37218), (103, 37182), (108, 37164), (110, 37152),

Gene: Dalmatian\_60 Start: 39281, Stop: 38649, Start Num: 9

Candidate Starts for Dalmatian\_60:

(Start: 9 @39281 has 573 MA's), (Start: 21 @39188 has 22 MA's), (Start: 37 @39134 has 23 MA's), (Start: 47 @39077 has 1 MA's), (61, 38993), (69, 38933), (79, 38873), (87, 38807), (91, 38774), (103, 38720),

Gene: Danforth\_59 Start: 38214, Stop: 37561, Start Num: 9

Candidate Starts for Danforth\_59:

(Start: 9 @38214 has 573 MA's), (Start: 21 @38121 has 22 MA's), (Start: 33 @38061 has 2 MA's), (Start: 37 @38049 has 23 MA's), (Start: 41 @38022 has 29 MA's), (51, 37965), (60, 37914), (61, 37908), (82, 37767), (83, 37752), (87, 37722), (91, 37689), (108, 37617), (109, 37608), (111, 37602), (117, 37578),



Gene: Danzina\_41 Start: 28932, Stop: 29597, Start Num: 7

Candidate Starts for Danzina\_41:

(Start: 7 @28932 has 37 MA's), (Start: 9 @28947 has 573 MA's), (11, 28950), (Start: 53 @29175 has 4 MA's), (60, 29232), (61, 29238), (63, 29259), (64, 29268), (71, 29304), (73, 29328), (76, 29340), (78, 29349), (79, 29358), (84, 29403), (87, 29424), (102, 29505), (107, 29526), (117, 29574),

Gene: Darrell\_61 Start: 39548, Stop: 38922, Start Num: 9

Candidate Starts for Darrell\_61:

(Start: 9 @39548 has 573 MA's), (Start: 21 @39455 has 22 MA's), (Start: 37 @39407 has 23 MA's), (Start: 41 @39380 has 29 MA's), (60, 39272), (61, 39266), (69, 39206), (73, 39176), (76, 39164), (79, 39146), (82, 39125), (87, 39080), (91, 39047), (103, 38993),

Gene: DARTHPhader\_56 Start: 40030, Stop: 39404, Start Num: 9

Candidate Starts for DARTHPhader\_56:

(Start: 9 @40030 has 573 MA's), (Start: 21 @39937 has 22 MA's), (Start: 37 @39889 has 23 MA's), (Start: 41 @39862 has 29 MA's), (Start: 52 @39802 has 1 MA's), (60, 39754), (61, 39748), (69, 39688), (79, 39628), (80, 39622), (87, 39562), (91, 39529), (95, 39511), (103, 39475),

Gene: Dattran\_41 Start: 28738, Stop: 29403, Start Num: 7

Candidate Starts for Dattran\_41:

(Start: 7 @28738 has 37 MA's), (Start: 9 @28753 has 573 MA's), (11, 28756), (Start: 53 @28981 has 4 MA's), (60, 29038), (61, 29044), (63, 29065), (64, 29074), (71, 29110), (73, 29134), (76, 29146), (78, 29155), (79, 29164), (84, 29209), (87, 29230), (102, 29311), (107, 29332), (117, 29380),

Gene: Datway\_54 Start: 38078, Stop: 37419, Start Num: 9

Candidate Starts for Datway\_54:

(Start: 9 @38078 has 573 MA's), (Start: 21 @37985 has 22 MA's), (Start: 25 @37967 has 1 MA's), (Start: 33 @37931 has 2 MA's), (Start: 37 @37919 has 23 MA's), (Start: 41 @37892 has 29 MA's), (Start: 45 @37877 has 1 MA's), (60, 37772), (79, 37646), (82, 37625), (83, 37610), (95, 37529), (103, 37493), (119, 37427),

Gene: Daudau\_40 Start: 29122, Stop: 29784, Start Num: 6

Candidate Starts for Daudau\_40:

(2, 28798), (3, 28855), (Start: 6 @29122 has 32 MA's), (15, 29170), (22, 29233), (Start: 43 @29323 has 1 MA's), (Start: 53 @29368 has 4 MA's), (63, 29452), (64, 29461), (82, 29572), (84, 29596), (87, 29617), (102, 29698), (107, 29716), (109, 29731),

Gene: Deano\_54 Start: 38147, Stop: 37488, Start Num: 9

Candidate Starts for Deano\_54:

(Start: 9 @38147 has 573 MA's), (Start: 21 @38054 has 22 MA's), (Start: 25 @38036 has 1 MA's), (Start: 33 @38000 has 2 MA's), (Start: 37 @37988 has 23 MA's), (Start: 41 @37961 has 29 MA's), (Start: 45 @37946 has 1 MA's), (60, 37841), (79, 37715), (80, 37709), (82, 37694), (83, 37679), (95, 37598), (101, 37571), (103, 37562), (119, 37496),

Gene: DekHockey33\_67 Start: 38797, Stop: 38165, Start Num: 9

Candidate Starts for DekHockey33\_67:

(Start: 9 @38797 has 573 MA's), (Start: 13 @38779 has 45 MA's), (Start: 21 @38704 has 22 MA's), (Start: 41 @38626 has 29 MA's), (Start: 45 @38611 has 1 MA's), (Start: 47 @38596 has 1 MA's), (66, 38476), (67, 38473), (78, 38401), (82, 38371), (91, 38293), (95, 38275), (103, 38239),

Gene: Deloris\_60 Start: 38927, Stop: 38388, Start Num: 21

Candidate Starts for Deloris\_60:

(Start: 21 @38927 has 22 MA's), (Start: 37 @38873 has 23 MA's), (Start: 47 @38816 has 1 MA's), (61, 38732), (69, 38672), (80, 38606), (87, 38546), (91, 38513), (95, 38495), (103, 38459),

Gene: Dennebes\_62 Start: 31136, Stop: 30504, Start Num: 9

Candidate Starts for Dennebes\_62:

(Start: 9 @31136 has 573 MA's), (Start: 13 @31118 has 45 MA's), (15, 31106), (Start: 47 @30938 has 1 MA's), (50, 30914), (59, 30875), (67, 30812), (79, 30731), (87, 30665),

Gene: Destructrice\_57 Start: 30905, Stop: 30273, Start Num: 9

Candidate Starts for Destructrice\_57:

(Start: 9 @30905 has 573 MA's), (Start: 13 @30887 has 45 MA's), (15, 30875), (Start: 47 @30707 has 1 MA's), (50, 30683), (64, 30590), (79, 30500), (80, 30494), (87, 30434), (97, 30377), (100, 30362),

Gene: Dexers\_39 Start: 29625, Stop: 30290, Start Num: 7

Candidate Starts for Dexers\_39:

(Start: 7 @29625 has 37 MA's), (Start: 9 @29640 has 573 MA's), (Start: 53 @29868 has 4 MA's), (60, 29925), (61, 29931), (63, 29952), (64, 29961), (73, 30021), (74, 30024), (76, 30033), (84, 30096), (87, 30117), (102, 30198), (107, 30219),

Gene: Dexes\_55 Start: 39646, Stop: 39122, Start Num: 29

Candidate Starts for Dexes\_55:

(Start: 29 @39646 has 115 MA's), (Start: 37 @39622 has 23 MA's), (Start: 41 @39595 has 29 MA's), (Start: 44 @39583 has 4 MA's), (Start: 52 @39535 has 1 MA's), (73, 39385), (87, 39289), (91, 39256), (95, 39238), (103, 39202), (110, 39169), (111, 39166),

Gene: Dhanush\_55 Start: 38142, Stop: 37483, Start Num: 9

Candidate Starts for Dhanush\_55:

(Start: 9 @38142 has 573 MA's), (Start: 21 @38049 has 22 MA's), (Start: 25 @38031 has 1 MA's), (Start: 33 @37995 has 2 MA's), (Start: 37 @37983 has 23 MA's), (Start: 41 @37956 has 29 MA's), (Start: 45 @37941 has 1 MA's), (60, 37836), (79, 37710), (80, 37704), (82, 37689), (83, 37674), (95, 37593), (101, 37566), (103, 37557), (119, 37491),

Gene: Diane\_39 Start: 28959, Stop: 29621, Start Num: 6

Candidate Starts for Diane\_39:

(3, 28692), (Start: 6 @28959 has 32 MA's), (15, 29007), (22, 29070), (Start: 43 @29160 has 1 MA's), (Start: 53 @29205 has 4 MA's), (63, 29289), (82, 29409), (84, 29433), (87, 29454), (102, 29535), (107, 29553), (109, 29568), (117, 29601),

Gene: Dieselweasel\_63 Start: 38901, Stop: 38242, Start Num: 9

Candidate Starts for Dieselweasel\_63:

(Start: 9 @38901 has 573 MA's), (Start: 21 @38808 has 22 MA's), (Start: 33 @38754 has 2 MA's), (Start: 37 @38742 has 23 MA's), (Start: 41 @38715 has 29 MA's), (60, 38595), (76, 38487), (79, 38469), (80, 38463), (95, 38352), (103, 38316), (108, 38298), (110, 38286),

Gene: Dignity\_61 Start: 39481, Stop: 38849, Start Num: 9

Candidate Starts for Dignity\_61:

(Start: 9 @39481 has 573 MA's), (Start: 21 @39388 has 22 MA's), (Start: 37 @39334 has 23 MA's), (Start: 47 @39277 has 1 MA's), (61, 39193), (69, 39133), (79, 39073), (87, 39007), (91, 38974), (103, 38920),

Gene: Dinger\_47 Start: 35422, Stop: 34763, Start Num: 9

Candidate Starts for Dinger\_47:

(Start: 9 @35422 has 573 MA's), (Start: 26 @35299 has 3 MA's), (Start: 37 @35263 has 23 MA's), (Start: 41 @35236 has 29 MA's), (Start: 47 @35206 has 1 MA's), (Start: 52 @35176 has 1 MA's), (Start: 53 @35173 has 4 MA's), (54, 35167), (60, 35116), (67, 35071), (79, 34990), (80, 34984), (108, 34819), (111, 34804),

Gene: DirtyDunning\_54 Start: 38151, Stop: 37492, Start Num: 9

Candidate Starts for DirtyDunning\_54:

(Start: 9 @38151 has 573 MA's), (Start: 21 @38058 has 22 MA's), (Start: 25 @38040 has 1 MA's), (Start: 33 @38004 has 2 MA's), (Start: 37 @37992 has 23 MA's), (Start: 41 @37965 has 29 MA's), (Start: 45 @37950 has 1 MA's), (60, 37845), (79, 37719), (80, 37713), (82, 37698), (83, 37683), (95, 37602), (101, 37575), (103, 37566), (119, 37500),

Gene: Discoknowium\_51 Start: 38039, Stop: 37380, Start Num: 9

Candidate Starts for Discoknowium\_51:

(Start: 9 @38039 has 573 MA's), (Start: 21 @37946 has 22 MA's), (Start: 25 @37928 has 1 MA's), (Start: 33 @37886 has 2 MA's), (Start: 37 @37874 has 23 MA's), (Start: 41 @37847 has 29 MA's), (Start: 44 @37835 has 4 MA's), (69, 37673), (80, 37607), (83, 37577), (87, 37547), (89, 37541), (91, 37514), (95, 37496), (101, 37469), (103, 37460), (108, 37442), (110, 37430), (111, 37427),

Gene: Dixon\_58 Start: 37734, Stop: 37081, Start Num: 9

Candidate Starts for Dixon\_58:

(Start: 9 @37734 has 573 MA's), (Start: 21 @37641 has 22 MA's), (Start: 33 @37581 has 2 MA's), (Start: 37 @37569 has 23 MA's), (Start: 41 @37542 has 29 MA's), (51, 37485), (60, 37434), (61, 37428), (82, 37287), (83, 37272), (87, 37242), (91, 37209), (108, 37137), (109, 37128), (111, 37122), (117, 37098),

Gene: DontArgue\_54 Start: 37214, Stop: 36555, Start Num: 9

Candidate Starts for DontArgue\_54:

(Start: 9 @37214 has 573 MA's), (Start: 21 @37121 has 22 MA's), (Start: 33 @37067 has 2 MA's), (Start: 37 @37055 has 23 MA's), (Start: 41 @37028 has 29 MA's), (Start: 45 @37013 has 1 MA's), (60, 36908), (68, 36860), (76, 36800), (80, 36776), (82, 36761), (83, 36746), (103, 36629), (108, 36611), (119, 36563),

Gene: Doom\_53 Start: 39055, Stop: 38534, Start Num: 29

Candidate Starts for Doom\_53:

(Start: 29 @39055 has 115 MA's), (Start: 37 @39031 has 23 MA's), (Start: 41 @39004 has 29 MA's), (Start: 44 @38992 has 4 MA's), (Start: 52 @38944 has 1 MA's), (73, 38794), (87, 38698), (88, 38695), (91, 38665), (95, 38647), (103, 38611), (110, 38581),

Gene: Dorothea\_60 Start: 37728, Stop: 37096, Start Num: 9

Candidate Starts for Dorothea\_60:

(Start: 9 @37728 has 573 MA's), (Start: 21 @37635 has 22 MA's), (Start: 37 @37581 has 23 MA's), (Start: 47 @37524 has 1 MA's), (60, 37446), (69, 37380), (82, 37299), (87, 37254), (91, 37221), (95, 37203), (103, 37167), (110, 37137), (111, 37134),

Gene: DrFeelGood\_52 Start: 38591, Stop: 38013, Start Num: 20

Candidate Starts for DrFeelGood\_52:

(Start: 20 @38591 has 38 MA's), (Start: 29 @38534 has 115 MA's), (Start: 37 @38510 has 23 MA's), (Start: 41 @38483 has 29 MA's), (Start: 44 @38471 has 4 MA's), (Start: 52 @38423 has 1 MA's), (73, 38273), (87, 38177), (88, 38174), (91, 38144), (95, 38126), (103, 38090), (110, 38060),

Gene: DrParker\_30 Start: 21427, Stop: 20756, Start Num: 13

Candidate Starts for DrParker\_30:

(Start: 13 @21427 has 45 MA's), (Start: 47 @21214 has 1 MA's), (Start: 53 @21175 has 4 MA's), (64, 21082), (67, 21073), (73, 21022), (93, 20887), (101, 20845), (113, 20788), (118, 20767),

Gene: Drake55\_61 Start: 39175, Stop: 38543, Start Num: 9

Candidate Starts for Drake55\_61:

(Start: 9 @39175 has 573 MA's), (Start: 21 @39082 has 22 MA's), (Start: 37 @39028 has 23 MA's), (Start: 47 @38971 has 1 MA's), (60, 38893), (61, 38887), (69, 38827), (79, 38767), (82, 38746), (87, 38701), (91, 38668), (103, 38614),

Gene: Drake94\_54 Start: 37266, Stop: 36607, Start Num: 9

Candidate Starts for Drake94\_54:

(Start: 9 @37266 has 573 MA's), (Start: 21 @37173 has 22 MA's), (Start: 37 @37107 has 23 MA's), (Start: 41 @37080 has 29 MA's), (Start: 53 @37017 has 4 MA's), (60, 36960), (68, 36912), (82, 36813), (83, 36798), (101, 36690), (103, 36681), (108, 36663), (110, 36651), (119, 36615),

Gene: DreamCatcher\_58 Start: 40191, Stop: 39670, Start Num: 29

Candidate Starts for DreamCatcher\_58:

(Start: 29 @40191 has 115 MA's), (Start: 37 @40167 has 23 MA's), (Start: 41 @40140 has 29 MA's), (Start: 44 @40128 has 4 MA's), (Start: 52 @40080 has 1 MA's), (67, 39981), (73, 39930), (87, 39834), (91, 39801), (95, 39783), (103, 39747), (110, 39717),

Gene: DreamTeam1\_57 Start: 38548, Stop: 37922, Start Num: 9

Candidate Starts for DreamTeam1\_57:

(Start: 9 @38548 has 573 MA's), (Start: 21 @38455 has 22 MA's), (Start: 37 @38407 has 23 MA's), (Start: 41 @38380 has 29 MA's), (60, 38272), (61, 38266), (69, 38206), (76, 38164), (82, 38125), (87, 38080), (103, 37993),

Gene: Dreamboat\_56 Start: 38344, Stop: 37823, Start Num: 29

Candidate Starts for Dreamboat\_56:

(Start: 29 @38344 has 115 MA's), (Start: 37 @38320 has 23 MA's), (Start: 41 @38293 has 29 MA's), (Start: 44 @38281 has 4 MA's), (Start: 52 @38233 has 1 MA's), (73, 38083), (87, 37987), (91, 37954), (95, 37936), (99, 37924), (103, 37900), (110, 37870),

Gene: DroogsArmy\_53 Start: 39870, Stop: 39409, Start Num: 41

Candidate Starts for DroogsArmy\_53:

(Start: 21 @39963 has 22 MA's), (Start: 24 @39948 has 2 MA's), (Start: 29 @39921 has 115 MA's), (Start: 37 @39897 has 23 MA's), (Start: 41 @39870 has 29 MA's), (Start: 44 @39858 has 4 MA's), (Start: 53 @39807 has 4 MA's), (60, 39762), (76, 39654), (79, 39636), (80, 39630), (83, 39600), (87, 39570), (95, 39519), (101, 39492), (103, 39483), (110, 39453), (119, 39417),

Gene: DropBear\_58 Start: 38451, Stop: 37789, Start Num: 9

Candidate Starts for DropBear\_58:

(Start: 9 @38451 has 573 MA's), (Start: 21 @38358 has 22 MA's), (Start: 33 @38304 has 2 MA's), (Start: 37 @38292 has 23 MA's), (Start: 41 @38265 has 29 MA's), (Start: 45 @38250 has 1 MA's), (Start: 53 @38202 has 4 MA's), (60, 38145), (68, 38097), (76, 38037), (80, 38013), (82, 37998), (83, 37983), (87, 37953), (95, 37902), (103, 37866), (108, 37848), (119, 37800),

Gene: Druantia\_55 Start: 38142, Stop: 37483, Start Num: 9

Candidate Starts for Druantia\_55:

(Start: 9 @38142 has 573 MA's), (Start: 21 @38049 has 22 MA's), (Start: 25 @38031 has 1 MA's), (Start: 33 @37995 has 2 MA's), (Start: 37 @37983 has 23 MA's), (Start: 41 @37956 has 29 MA's), (Start: 45 @37941 has 1 MA's), (60, 37836), (79, 37710), (80, 37704), (82, 37689), (83, 37674), (95, 37593), (101, 37566), (103, 37557), (119, 37491),

Gene: Dublin\_53 Start: 38541, Stop: 37879, Start Num: 9

Candidate Starts for Dublin\_53:

(Start: 9 @38541 has 573 MA's), (Start: 21 @38448 has 22 MA's), (Start: 25 @38430 has 1 MA's), (Start: 33 @38388 has 2 MA's), (Start: 37 @38376 has 23 MA's), (Start: 41 @38349 has 29 MA's), (Start: 44 @38337 has 4 MA's), (69, 38172), (80, 38106), (83, 38076), (87, 38046), (89, 38040), (91, 38013), (95, 37995), (101, 37968), (103, 37959), (108, 37941), (110, 37929), (111, 37926),

Gene: DudeLittle\_58 Start: 39047, Stop: 38415, Start Num: 9

Candidate Starts for DudeLittle\_58:

(Start: 9 @39047 has 573 MA's), (Start: 21 @38954 has 22 MA's), (Start: 37 @38900 has 23 MA's), (Start: 47 @38843 has 1 MA's), (61, 38759), (69, 38699), (79, 38639), (87, 38573), (91, 38540), (103, 38486),

Gene: Dulcie\_55 Start: 38956, Stop: 38435, Start Num: 29

Candidate Starts for Dulcie\_55:

(Start: 29 @38956 has 115 MA's), (Start: 37 @38932 has 23 MA's), (Start: 41 @38905 has 29 MA's), (Start: 44 @38893 has 4 MA's), (Start: 52 @38845 has 1 MA's), (67, 38746), (73, 38695), (87, 38599), (91, 38566), (95, 38548), (103, 38512), (110, 38482),

Gene: Duplo\_61 Start: 38938, Stop: 38306, Start Num: 9

Candidate Starts for Duplo\_61:

(Start: 9 @38938 has 573 MA's), (Start: 21 @38845 has 22 MA's), (Start: 37 @38791 has 23 MA's), (Start: 41 @38764 has 29 MA's), (Start: 47 @38734 has 1 MA's), (60, 38656), (61, 38650), (69, 38590), (82, 38509), (87, 38464), (91, 38431), (95, 38413), (103, 38377),

Gene: Dussy\_56 Start: 39730, Stop: 39206, Start Num: 29

Candidate Starts for Dussy\_56:

(Start: 29 @39730 has 115 MA's), (Start: 37 @39706 has 23 MA's), (Start: 41 @39679 has 29 MA's), (Start: 44 @39667 has 4 MA's), (Start: 52 @39619 has 1 MA's), (67, 39520), (73, 39469), (87, 39373), (88, 39370), (91, 39340), (95, 39322), (103, 39286), (110, 39253), (111, 39250),

Gene: DustyMartin\_59 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for DustyMartin\_59:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 53 @37884 has 4 MA's), (60, 37827), (68, 37779), (76, 37719), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (101, 37557), (103, 37548), (108, 37530), (110, 37518), (119, 37482),

Gene: Dwayne\_39 Start: 28180, Stop: 28845, Start Num: 7

Candidate Starts for Dwayne\_39:

(Start: 7 @28180 has 37 MA's), (Start: 9 @28195 has 573 MA's), (11, 28198), (Start: 37 @28339 has 23 MA's), (Start: 53 @28423 has 4 MA's), (60, 28480), (61, 28486), (63, 28507), (71, 28552), (73, 28576), (76, 28588), (78, 28597), (79, 28606), (84, 28651), (87, 28672), (102, 28753), (107, 28774), (117, 28822),

Gene: Dynamix\_56 Start: 38930, Stop: 38409, Start Num: 29

Candidate Starts for Dynamix\_56:

(Start: 29 @38930 has 115 MA's), (Start: 37 @38906 has 23 MA's), (Start: 41 @38879 has 29 MA's), (Start: 44 @38867 has 4 MA's), (Start: 52 @38819 has 1 MA's), (67, 38720), (73, 38669), (87, 38573), (88, 38570), (91, 38540), (95, 38522), (96, 38519), (103, 38486), (110, 38456), (111, 38453),

Gene: ELB20\_38 Start: 29365, Stop: 30027, Start Num: 6

Candidate Starts for ELB20\_38:

(Start: 6 @29365 has 32 MA's), (15, 29413), (22, 29476), (Start: 43 @29566 has 1 MA's), (Start: 53 @29611 has 4 MA's), (63, 29695), (64, 29704), (82, 29815), (84, 29839), (87, 29860), (107, 29959), (109, 29974), (115, 29995),

Gene: EZMoney23\_56 Start: 38474, Stop: 37935, Start Num: 21

Candidate Starts for EZMoney23\_56:

(Start: 9 @38567 has 573 MA's), (Start: 21 @38474 has 22 MA's), (30, 38438), (Start: 37 @38420 has 23 MA's), (Start: 47 @38363 has 1 MA's), (60, 38285), (61, 38279), (67, 38240), (69, 38219), (82, 38138), (87, 38093), (91, 38060), (95, 38042), (103, 38006),

Gene: Eagle\_55 Start: 38017, Stop: 37505, Start Num: 33

Candidate Starts for Eagle\_55:

(Start: 9 @38164 has 573 MA's), (Start: 21 @38071 has 22 MA's), (Start: 25 @38053 has 1 MA's), (Start: 33 @38017 has 2 MA's), (Start: 37 @38005 has 23 MA's), (Start: 41 @37978 has 29 MA's), (Start: 45 @37963 has 1 MA's), (60, 37858), (79, 37732), (80, 37726), (82, 37711), (83, 37696), (95, 37615), (101, 37588), (103, 37579), (119, 37513),

Gene: EagleEye\_62 Start: 39020, Stop: 38382, Start Num: 9

Candidate Starts for EagleEye\_62:

(Start: 9 @39020 has 573 MA's), (Start: 21 @38927 has 22 MA's), (Start: 37 @38873 has 23 MA's), (Start: 41 @38846 has 29 MA's), (Start: 45 @38831 has 1 MA's), (Start: 47 @38816 has 1 MA's), (61, 38729), (69, 38669), (76, 38624), (83, 38570), (87, 38540), (95, 38489), (103, 38453),

Gene: Eaglepride\_57 Start: 38218, Stop: 37559, Start Num: 9

Candidate Starts for Eaglepride\_57:

(Start: 9 @38218 has 573 MA's), (Start: 21 @38125 has 22 MA's), (Start: 33 @38071 has 2 MA's), (Start: 37 @38059 has 23 MA's), (Start: 41 @38032 has 29 MA's), (Start: 45 @38017 has 1 MA's), (60, 37912), (68, 37864), (76, 37804), (79, 37786), (80, 37780), (82, 37765), (83, 37750), (99, 37657), (101, 37642), (103, 37633), (108, 37615), (110, 37603), (119, 37567),

Gene: Eapen\_55 Start: 38134, Stop: 37475, Start Num: 9

Candidate Starts for Eapen\_55:

(Start: 9 @38134 has 573 MA's), (Start: 21 @38041 has 22 MA's), (Start: 25 @38023 has 1 MA's), (Start: 33 @37987 has 2 MA's), (Start: 37 @37975 has 23 MA's), (Start: 41 @37948 has 29 MA's), (Start: 45 @37933 has 1 MA's), (60, 37828), (79, 37702), (80, 37696), (82, 37681), (83, 37666), (95, 37585), (101, 37558), (103, 37549), (119, 37483),

Gene: Ebony\_59 Start: 38231, Stop: 37584, Start Num: 9

Candidate Starts for Ebony\_59:

(Start: 9 @38231 has 573 MA's), (Start: 21 @38138 has 22 MA's), (Start: 37 @38084 has 23 MA's), (Start: 41 @38057 has 29 MA's), (Start: 47 @38027 has 1 MA's), (61, 37931), (69, 37871), (80, 37805), (82, 37790), (87, 37745), (90, 37736), (91, 37712), (103, 37658), (111, 37625),

Gene: Echild\_59 Start: 38356, Stop: 37724, Start Num: 9

Candidate Starts for Echild\_59:

(Start: 9 @38356 has 573 MA's), (Start: 21 @38263 has 22 MA's), (Start: 37 @38209 has 23 MA's), (Start: 47 @38152 has 1 MA's), (61, 38068), (69, 38008), (79, 37948), (87, 37882), (91, 37849), (103, 37795),

Gene: Eddasa\_40 Start: 28336, Stop: 28842, Start Num: 37

Candidate Starts for Eddasa\_40:

(Start: 7 @28177 has 37 MA's), (Start: 9 @28192 has 573 MA's), (11, 28195), (Start: 37 @28336 has 23 MA's), (Start: 53 @28420 has 4 MA's), (60, 28477), (61, 28483), (63, 28504), (64, 28513), (71, 28549), (73, 28573), (76, 28585), (77, 28588), (78, 28594), (79, 28603), (84, 28648), (87, 28669), (102, 28750), (107, 28771), (117, 28819),

Gene: Edison31\_54 Start: 38061, Stop: 37402, Start Num: 9

Candidate Starts for Edison31\_54:

(Start: 9 @38061 has 573 MA's), (Start: 21 @37968 has 22 MA's), (Start: 37 @37902 has 23 MA's), (Start: 41 @37875 has 29 MA's), (Start: 53 @37812 has 4 MA's), (60, 37755), (68, 37707), (76, 37647), (79, 37629), (80, 37623), (82, 37608), (83, 37593), (101, 37485), (103, 37476), (108, 37458), (110, 37446), (119, 37410),

Gene: EdogawaKiddo\_57 Start: 38786, Stop: 38274, Start Num: 26

Candidate Starts for EdogawaKiddo\_57:

(Start: 9 @38903 has 573 MA's), (Start: 21 @38810 has 22 MA's), (Start: 26 @38786 has 3 MA's), (Start: 37 @38762 has 23 MA's), (Start: 41 @38735 has 29 MA's), (Start: 45 @38720 has 1 MA's), (60, 38624), (61, 38618), (67, 38579), (69, 38558), (87, 38432), (91, 38399), (103, 38345), (110, 38315),

Gene: Edtherson\_54 Start: 39025, Stop: 38504, Start Num: 29

Candidate Starts for Edtherson\_54:

(Start: 29 @39025 has 115 MA's), (Start: 37 @39001 has 23 MA's), (Start: 41 @38974 has 29 MA's), (Start: 44 @38962 has 4 MA's), (Start: 52 @38914 has 1 MA's), (67, 38815), (73, 38764), (87, 38668), (91, 38635), (95, 38617), (103, 38581), (110, 38551),

Gene: Eidsmoe\_59 Start: 38750, Stop: 38289, Start Num: 41

Candidate Starts for Eidsmoe\_59:

(Start: 9 @38918 has 573 MA's), (Start: 21 @38825 has 22 MA's), (Start: 26 @38801 has 3 MA's), (Start: 37 @38777 has 23 MA's), (Start: 41 @38750 has 29 MA's), (Start: 45 @38735 has 1 MA's), (60, 38639), (61, 38633), (67, 38594), (69, 38573), (80, 38507), (87, 38447), (91, 38414), (103, 38360),

Gene: Ejemplo\_38 Start: 28139, Stop: 28789, Start Num: 9

Candidate Starts for Ejemplo\_38:

(Start: 7 @28124 has 37 MA's), (Start: 9 @28139 has 573 MA's), (11, 28142), (Start: 53 @28367 has 4 MA's), (60, 28424), (61, 28430), (63, 28451), (71, 28496), (73, 28520), (76, 28532), (78, 28541), (79, 28550), (84, 28595), (87, 28616), (102, 28697), (107, 28718), (117, 28766),

Gene: ElGato\_41 Start: 29265, Stop: 29930, Start Num: 7

Candidate Starts for ElGato\_41:

(Start: 7 @29265 has 37 MA's), (Start: 9 @29280 has 573 MA's), (Start: 53 @29508 has 4 MA's), (60, 29565), (61, 29571), (63, 29592), (64, 29601), (73, 29661), (74, 29664), (76, 29673), (84, 29736), (87, 29757), (102, 29838), (107, 29859),

Gene: ElTiger69\_56 Start: 38498, Stop: 37836, Start Num: 9

Candidate Starts for ElTiger69\_56:

(Start: 9 @38498 has 573 MA's), (Start: 21 @38405 has 22 MA's), (Start: 25 @38387 has 1 MA's), (Start: 33 @38345 has 2 MA's), (Start: 37 @38333 has 23 MA's), (Start: 41 @38306 has 29 MA's), (Start: 44 @38294 has 4 MA's), (Start: 45 @38291 has 1 MA's), (69, 38129), (80, 38063), (82, 38048), (83, 38033), (87, 38003), (89, 37997), (91, 37970), (95, 37952), (101, 37925), (103, 37916), (108, 37898), (110, 37886), (111, 37883),

Gene: Elephantoon\_58 Start: 38290, Stop: 37664, Start Num: 9

Candidate Starts for Elephantoon\_58:

(Start: 9 @38290 has 573 MA's), (16, 38254), (Start: 21 @38197 has 22 MA's), (Start: 37 @38149 has 23 MA's), (Start: 41 @38122 has 29 MA's), (Start: 47 @38092 has 1 MA's), (60, 38014), (61, 38008), (63, 37987), (69, 37948), (76, 37906), (79, 37888), (82, 37867), (87, 37822), (91, 37789), (103, 37735),

Gene: Emaanora\_42 Start: 28153, Stop: 28803, Start Num: 9

Candidate Starts for Emaanora\_42:

(Start: 7 @28138 has 37 MA's), (Start: 9 @28153 has 573 MA's), (11, 28156), (Start: 37 @28297 has 23 MA's), (Start: 53 @28381 has 4 MA's), (60, 28438), (61, 28444), (63, 28465), (71, 28510), (73, 28534), (76, 28546), (78, 28555), (79, 28564), (84, 28609), (87, 28630), (102, 28711), (107, 28732), (117, 28780),

Gene: EmyBug\_58 Start: 38920, Stop: 38291, Start Num: 9

Candidate Starts for EmyBug\_58:

(Start: 9 @38920 has 573 MA's), (Start: 21 @38827 has 22 MA's), (Start: 26 @38803 has 3 MA's), (Start: 37 @38779 has 23 MA's), (Start: 41 @38752 has 29 MA's), (Start: 45 @38737 has 1 MA's), (60, 38641), (61, 38635), (67, 38596), (69, 38575), (80, 38509), (87, 38449), (91, 38416), (103, 38362),

Gene: EnochSoames\_42 Start: 28331, Stop: 28837, Start Num: 37

Candidate Starts for EnochSoames\_42:

(Start: 7 @28172 has 37 MA's), (Start: 9 @28187 has 573 MA's), (11, 28190), (Start: 37 @28331 has 23 MA's), (Start: 53 @28415 has 4 MA's), (60, 28472), (61, 28478), (63, 28499), (64, 28508), (71, 28544), (73, 28568), (76, 28580), (77, 28583), (78, 28589), (79, 28598), (84, 28643), (102, 28745), (107, 28766), (117, 28814),

Gene: Enochoraptor\_30 Start: 21346, Stop: 20675, Start Num: 13

Candidate Starts for Enochoraptor\_30:

(Start: 13 @21346 has 45 MA's), (Start: 47 @21133 has 1 MA's), (Start: 53 @21094 has 4 MA's), (64, 21001), (67, 20992), (69, 20971), (73, 20941), (93, 20806), (101, 20764), (113, 20707), (118, 20686),

Gene: Enoki\_30 Start: 21357, Stop: 20686, Start Num: 13

Candidate Starts for Enoki\_30:

(Start: 13 @21357 has 45 MA's), (Start: 47 @21144 has 1 MA's), (Start: 53 @21105 has 4 MA's), (64, 21012), (67, 21003), (69, 20982), (73, 20952), (93, 20817), (101, 20775), (113, 20718), (118, 20697),

Gene: EnzoK\_55 Start: 36780, Stop: 36256, Start Num: 29

Candidate Starts for EnzoK\_55:

(Start: 29 @36780 has 115 MA's), (Start: 37 @36756 has 23 MA's), (Start: 41 @36729 has 29 MA's), (Start: 44 @36717 has 4 MA's), (Start: 52 @36669 has 1 MA's), (73, 36519), (87, 36423), (88, 36420), (91, 36390), (95, 36372), (103, 36336), (110, 36303), (111, 36300),

Gene: EpicPhail\_63 Start: 38902, Stop: 38243, Start Num: 9

Candidate Starts for EpicPhail\_63:

(Start: 9 @38902 has 573 MA's), (Start: 21 @38809 has 22 MA's), (Start: 33 @38755 has 2 MA's), (Start: 37 @38743 has 23 MA's), (Start: 41 @38716 has 29 MA's), (60, 38596), (76, 38488), (79, 38470), (80, 38464), (95, 38353), (103, 38317), (108, 38299), (110, 38287),

Gene: Epsocamisio\_63 Start: 37947, Stop: 37408, Start Num: 21

Candidate Starts for Epsocamisio\_63:

(Start: 9 @38040 has 573 MA's), (Start: 13 @38022 has 45 MA's), (Start: 21 @37947 has 22 MA's), (Start: 41 @37869 has 29 MA's), (Start: 45 @37854 has 1 MA's), (Start: 47 @37839 has 1 MA's), (66, 37719), (67, 37716), (78, 37644), (82, 37614), (91, 37536), (103, 37482),

Gene: Equemioh13\_60 Start: 38998, Stop: 38366, Start Num: 9



Candidate Starts for Equemioh13\_60:

(Start: 9 @38998 has 573 MA's), (Start: 21 @38905 has 22 MA's), (Start: 37 @38851 has 23 MA's), (Start: 47 @38794 has 1 MA's), (57, 38740), (60, 38716), (61, 38710), (69, 38650), (79, 38590), (82, 38569), (87, 38524), (91, 38491), (103, 38437),

Gene: EricB\_59 Start: 37711, Stop: 37079, Start Num: 9

Candidate Starts for EricB\_59:

(Start: 9 @37711 has 573 MA's), (Start: 21 @37618 has 22 MA's), (Start: 37 @37564 has 23 MA's), (Start: 47 @37507 has 1 MA's), (60, 37429), (69, 37363), (82, 37282), (87, 37237), (91, 37204), (95, 37186), (103, 37150), (110, 37120), (111, 37117),

Gene: Erik\_48 Start: 35212, Stop: 34553, Start Num: 9

Candidate Starts for Erik\_48:

(Start: 9 @35212 has 573 MA's), (Start: 26 @35089 has 3 MA's), (Start: 37 @35053 has 23 MA's), (Start: 41 @35026 has 29 MA's), (Start: 47 @34996 has 1 MA's), (Start: 52 @34966 has 1 MA's), (Start: 53 @34963 has 4 MA's), (54, 34957), (60, 34906), (67, 34861), (69, 34840), (79, 34780), (80, 34774), (108, 34609), (111, 34594),

Gene: Eris\_54 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Eris\_54:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Eros\_55 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Eros\_55:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (101, 37565), (103, 37556), (119, 37490),

Gene: Esperer\_39 Start: 27636, Stop: 28301, Start Num: 7

Candidate Starts for Esperer\_39:

(Start: 7 @27636 has 37 MA's), (Start: 9 @27651 has 573 MA's), (11, 27654), (Start: 37 @27795 has 23 MA's), (Start: 53 @27879 has 4 MA's), (60, 27936), (61, 27942), (63, 27963), (64, 27972), (71, 28008), (73, 28032), (76, 28044), (78, 28053), (79, 28062), (84, 28107), (102, 28209), (107, 28230), (117, 28278),

Gene: Espica\_48 Start: 35222, Stop: 34563, Start Num: 9

Candidate Starts for Espica\_48:

(Start: 9 @35222 has 573 MA's), (Start: 26 @35099 has 3 MA's), (Start: 37 @35063 has 23 MA's), (Start: 41 @35036 has 29 MA's), (Start: 47 @35006 has 1 MA's), (Start: 52 @34976 has 1 MA's), (Start: 53 @34973 has 4 MA's), (54, 34967), (60, 34916), (67, 34871), (69, 34850), (80, 34784), (108, 34619), (111, 34604),

Gene: Espresso\_54 Start: 39707, Stop: 39060, Start Num: 12

Candidate Starts for Espresso\_54:

(Start: 12 @39707 has 28 MA's), (Start: 29 @39584 has 115 MA's), (Start: 41 @39533 has 29 MA's), (Start: 44 @39521 has 4 MA's), (58, 39440), (63, 39392), (68, 39371), (69, 39353), (79, 39293), (87, 39227), (91, 39194), (95, 39176), (103, 39140), (110, 39107), (111, 39104),

Gene: Et2Brutus\_58 Start: 38194, Stop: 37547, Start Num: 9

Candidate Starts for Et2Brutus\_58:

(Start: 9 @38194 has 573 MA's), (Start: 21 @38101 has 22 MA's), (Start: 37 @38047 has 23 MA's), (Start: 41 @38020 has 29 MA's), (Start: 47 @37990 has 1 MA's), (61, 37894), (69, 37834), (80, 37768), (82, 37753), (87, 37708), (90, 37699), (91, 37675), (103, 37621), (111, 37588),

Gene: Euphoria\_52 Start: 38955, Stop: 38311, Start Num: 12

Candidate Starts for Euphoria\_52:

(Start: 12 @38955 has 28 MA's), (Start: 29 @38832 has 115 MA's), (Start: 41 @38781 has 29 MA's), (Start: 44 @38769 has 4 MA's), (63, 38640), (68, 38619), (69, 38601), (87, 38475), (91, 38442), (95, 38424), (103, 38388), (110, 38358),

Gene: Eurydice\_56 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Eurydice\_56:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: EvilGenius\_61 Start: 40659, Stop: 40027, Start Num: 9

Candidate Starts for EvilGenius\_61:

(Start: 9 @40659 has 573 MA's), (Start: 21 @40566 has 22 MA's), (Start: 37 @40512 has 23 MA's), (Start: 47 @40455 has 1 MA's), (61, 40371), (69, 40311), (79, 40251), (87, 40185), (91, 40152), (103, 40098),

Gene: Expelliarmus\_57 Start: 37938, Stop: 37285, Start Num: 9

Candidate Starts for Expelliarmus\_57:

(Start: 9 @37938 has 573 MA's), (Start: 21 @37845 has 22 MA's), (Start: 33 @37785 has 2 MA's), (Start: 37 @37773 has 23 MA's), (Start: 41 @37746 has 29 MA's), (51, 37689), (60, 37638), (61, 37632), (82, 37491), (83, 37476), (87, 37446), (91, 37413), (108, 37341), (109, 37332), (111, 37326), (117, 37302),

Gene: ExplosioNervosa\_59 Start: 38986, Stop: 38357, Start Num: 9

Candidate Starts for ExplosioNervosa\_59:

(Start: 9 @38986 has 573 MA's), (Start: 21 @38893 has 22 MA's), (Start: 26 @38869 has 3 MA's), (Start: 37 @38845 has 23 MA's), (Start: 41 @38818 has 29 MA's), (Start: 45 @38803 has 1 MA's), (60, 38707), (61, 38701), (67, 38662), (69, 38641), (80, 38575), (87, 38515), (91, 38482), (103, 38428),

Gene: Eyeball\_56 Start: 39177, Stop: 38599, Start Num: 20

Candidate Starts for Eyeball\_56:

(Start: 20 @39177 has 38 MA's), (Start: 29 @39120 has 115 MA's), (Start: 37 @39096 has 23 MA's), (Start: 41 @39069 has 29 MA's), (Start: 44 @39057 has 4 MA's), (Start: 52 @39009 has 1 MA's), (67, 38910), (73, 38859), (87, 38763), (88, 38760), (91, 38730), (95, 38712), (96, 38709), (103, 38676), (110, 38646), (111, 38643),

Gene: Fabian\_55 Start: 30569, Stop: 29937, Start Num: 9

Candidate Starts for Fabian\_55:

(Start: 9 @30569 has 573 MA's), (Start: 13 @30551 has 45 MA's), (15, 30539), (Start: 47 @30371 has 1 MA's), (50, 30347), (67, 30245), (79, 30164), (87, 30098), (96, 30044), (97, 30041),

Gene: Fajezeel\_56 Start: 39091, Stop: 38570, Start Num: 29

Candidate Starts for Fajezeel\_56:

(Start: 29 @39091 has 115 MA's), (Start: 37 @39067 has 23 MA's), (Start: 41 @39040 has 29 MA's), (Start: 44 @39028 has 4 MA's), (Start: 52 @38980 has 1 MA's), (73, 38830), (87, 38734), (88, 38731),

(91, 38701), (95, 38683), (103, 38647), (110, 38617),

Gene: Fameo\_59 Start: 39406, Stop: 38774, Start Num: 9

Candidate Starts for Fameo\_59:

(Start: 9 @39406 has 573 MA's), (Start: 21 @39313 has 22 MA's), (30, 39277), (Start: 37 @39259 has 23 MA's), (Start: 47 @39202 has 1 MA's), (61, 39118), (69, 39058), (79, 38998), (87, 38932), (91, 38899), (103, 38845),

Gene: Farber\_62 Start: 38888, Stop: 38229, Start Num: 9

Candidate Starts for Farber\_62:

(Start: 9 @38888 has 573 MA's), (Start: 21 @38795 has 22 MA's), (Start: 33 @38741 has 2 MA's), (Start: 37 @38729 has 23 MA's), (Start: 41 @38702 has 29 MA's), (60, 38582), (76, 38474), (79, 38456), (80, 38450), (95, 38339), (103, 38303), (108, 38285), (110, 38273),

Gene: FatCactus\_52 Start: 36745, Stop: 36098, Start Num: 9

Candidate Starts for FatCactus\_52:

(Start: 9 @36745 has 573 MA's), (Start: 21 @36652 has 22 MA's), (Start: 29 @36610 has 115 MA's), (Start: 33 @36598 has 2 MA's), (Start: 37 @36586 has 23 MA's), (Start: 52 @36499 has 1 MA's), (60, 36451), (68, 36403), (73, 36355), (79, 36325), (91, 36226), (99, 36196), (108, 36154), (117, 36115),

Gene: Fayely\_59 Start: 38887, Stop: 38258, Start Num: 9

Candidate Starts for Fayely\_59:

(Start: 9 @38887 has 573 MA's), (Start: 21 @38794 has 22 MA's), (Start: 26 @38770 has 3 MA's), (Start: 37 @38746 has 23 MA's), (Start: 41 @38719 has 29 MA's), (Start: 45 @38704 has 1 MA's), (60, 38608), (61, 38602), (67, 38563), (69, 38542), (80, 38476), (87, 38416), (91, 38383), (103, 38329),

Gene: Fenn\_57 Start: 40876, Stop: 40355, Start Num: 29

Candidate Starts for Fenn\_57:

(Start: 20 @40933 has 38 MA's), (Start: 29 @40876 has 115 MA's), (Start: 37 @40852 has 23 MA's), (39, 40840), (Start: 41 @40825 has 29 MA's), (Start: 44 @40813 has 4 MA's), (Start: 52 @40765 has 1 MA's), (67, 40666), (73, 40615), (87, 40519), (91, 40486), (95, 40468), (103, 40432), (110, 40402),

Gene: Fernando\_62 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for Fernando\_62:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's), (Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79, 38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: Fibonacci\_59 Start: 38200, Stop: 37553, Start Num: 9

Candidate Starts for Fibonacci\_59:

(Start: 9 @38200 has 573 MA's), (Start: 21 @38107 has 22 MA's), (Start: 37 @38053 has 23 MA's), (Start: 41 @38026 has 29 MA's), (Start: 47 @37996 has 1 MA's), (61, 37900), (69, 37840), (80, 37774), (82, 37759), (87, 37714), (90, 37705), (91, 37681), (103, 37627), (111, 37594),

Gene: FiringLine\_59 Start: 39056, Stop: 38424, Start Num: 9

Candidate Starts for FiringLine\_59:

(Start: 9 @39056 has 573 MA's), (Start: 21 @38963 has 22 MA's), (Start: 37 @38909 has 23 MA's), (Start: 47 @38852 has 1 MA's), (69, 38708), (79, 38648), (87, 38582), (91, 38549), (95, 38531), (103, 38495),

Gene: First\_0061 Start: 39106, Stop: 38621, Start Num: 37

Candidate Starts for First\_0061:

(Start: 21 @39160 has 22 MA's), (Start: 37 @39106 has 23 MA's), (Start: 47 @39049 has 1 MA's), (61, 38965), (69, 38905), (80, 38839), (87, 38779), (91, 38746), (95, 38728), (103, 38692),

Gene: Flare16\_59 Start: 38754, Stop: 38122, Start Num: 9

Candidate Starts for Flare16\_59:

(Start: 9 @38754 has 573 MA's), (Start: 21 @38661 has 22 MA's), (Start: 37 @38607 has 23 MA's), (Start: 47 @38550 has 1 MA's), (57, 38496), (60, 38472), (61, 38466), (69, 38406), (79, 38346), (82, 38325), (87, 38280), (91, 38247), (103, 38193),

Gene: Flaverint\_60 Start: 38658, Stop: 38011, Start Num: 9

Candidate Starts for Flaverint\_60:

(Start: 9 @38658 has 573 MA's), (Start: 21 @38565 has 22 MA's), (Start: 37 @38511 has 23 MA's), (Start: 41 @38484 has 29 MA's), (Start: 47 @38454 has 1 MA's), (61, 38358), (69, 38298), (80, 38232), (82, 38217), (87, 38172), (90, 38163), (91, 38139), (103, 38085), (111, 38052),

Gene: Florean\_55 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for Florean\_55:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: FlowerPower\_57 Start: 30569, Stop: 29937, Start Num: 9

Candidate Starts for FlowerPower\_57:

(Start: 9 @30569 has 573 MA's), (Start: 13 @30551 has 45 MA's), (15, 30539), (Start: 47 @30371 has 1 MA's), (50, 30347), (67, 30245), (79, 30164), (87, 30098), (96, 30044), (97, 30041),

Gene: Flux\_55 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for Flux\_55:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: FlyCatcher\_61 Start: 40954, Stop: 40307, Start Num: 9

Candidate Starts for FlyCatcher\_61:

(Start: 9 @40954 has 573 MA's), (Start: 21 @40861 has 22 MA's), (Start: 24 @40846 has 2 MA's), (Start: 29 @40819 has 115 MA's), (35, 40804), (Start: 41 @40768 has 29 MA's), (Start: 44 @40756 has 4 MA's), (Start: 45 @40753 has 1 MA's), (Start: 53 @40705 has 4 MA's), (60, 40660), (69, 40594), (76, 40552), (80, 40528), (83, 40498), (92, 40432), (101, 40390), (103, 40381), (117, 40324), (119, 40315),

Gene: ForGetIt\_53 Start: 38397, Stop: 37738, Start Num: 9

Candidate Starts for ForGetIt\_53:

(Start: 9 @38397 has 573 MA's), (Start: 21 @38304 has 22 MA's), (Start: 25 @38286 has 1 MA's), (Start: 33 @38244 has 2 MA's), (Start: 37 @38232 has 23 MA's), (Start: 41 @38205 has 29 MA's), (Start: 44 @38193 has 4 MA's), (69, 38031), (80, 37965), (83, 37935), (87, 37905), (89, 37899), (91, 37872), (95, 37854), (101, 37827), (103, 37818), (108, 37800), (110, 37788), (111, 37785),

Gene: Forsytheast\_54 Start: 38503, Stop: 37982, Start Num: 29

Candidate Starts for Forsytheast\_54:

(Start: 29 @38503 has 115 MA's), (Start: 37 @38479 has 23 MA's), (Start: 41 @38452 has 29 MA's), (Start: 44 @38440 has 4 MA's), (Start: 52 @38392 has 1 MA's), (67, 38293), (73, 38242), (87, 38146),

(91, 38113), (95, 38095), (103, 38059), (110, 38029),

Gene: Francis47\_53 Start: 40145, Stop: 39624, Start Num: 29

Candidate Starts for Francis47\_53:

(Start: 29 @40145 has 115 MA's), (Start: 37 @40121 has 23 MA's), (Start: 41 @40094 has 29 MA's),  
(Start: 44 @40082 has 4 MA's), (Start: 52 @40034 has 1 MA's), (67, 39935), (73, 39884), (87, 39788),  
(91, 39755), (95, 39737), (103, 39701), (110, 39671),

Gene: Fred313\_57 Start: 38142, Stop: 37480, Start Num: 9

Candidate Starts for Fred313\_57:

(Start: 9 @38142 has 573 MA's), (Start: 21 @38049 has 22 MA's), (Start: 33 @37995 has 2 MA's),  
(Start: 37 @37983 has 23 MA's), (Start: 41 @37956 has 29 MA's), (Start: 45 @37941 has 1 MA's),  
(Start: 53 @37893 has 4 MA's), (60, 37836), (68, 37788), (76, 37728), (80, 37704), (82, 37689), (83,  
37674), (87, 37644), (95, 37593), (103, 37557), (108, 37539), (119, 37491),

Gene: Froghopper\_52 Start: 37870, Stop: 37349, Start Num: 29

Candidate Starts for Froghopper\_52:

(Start: 29 @37870 has 115 MA's), (Start: 37 @37846 has 23 MA's), (Start: 41 @37819 has 29 MA's),  
(Start: 44 @37807 has 4 MA's), (Start: 52 @37759 has 1 MA's), (73, 37609), (87, 37513), (88, 37510),  
(91, 37480), (95, 37462), (103, 37426), (110, 37396),

Gene: Funston\_54 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Funston\_54:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's),  
(Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's),  
(Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95,  
37590), (101, 37563), (103, 37554), (119, 37488),

Gene: GMonster\_52 Start: 37727, Stop: 37203, Start Num: 29

Candidate Starts for GMonster\_52:

(Start: 29 @37727 has 115 MA's), (Start: 37 @37703 has 23 MA's), (Start: 41 @37676 has 29 MA's),  
(Start: 44 @37664 has 4 MA's), (Start: 52 @37616 has 1 MA's), (73, 37466), (87, 37370), (88, 37367),  
(91, 37337), (95, 37319), (103, 37283), (110, 37253), (111, 37250),

Gene: Gadost\_55 Start: 38143, Stop: 37484, Start Num: 9

Candidate Starts for Gadost\_55:

(Start: 9 @38143 has 573 MA's), (Start: 21 @38050 has 22 MA's), (Start: 25 @38032 has 1 MA's),  
(Start: 33 @37996 has 2 MA's), (Start: 37 @37984 has 23 MA's), (Start: 41 @37957 has 29 MA's),  
(Start: 45 @37942 has 1 MA's), (60, 37837), (79, 37711), (80, 37705), (82, 37690), (83, 37675), (95,  
37594), (101, 37567), (103, 37558), (119, 37492),

Gene: GageAP\_55 Start: 39744, Stop: 39100, Start Num: 12

Candidate Starts for GageAP\_55:

(Start: 12 @39744 has 28 MA's), (Start: 29 @39621 has 115 MA's), (Start: 41 @39570 has 29 MA's),  
(Start: 44 @39558 has 4 MA's), (58, 39477), (63, 39429), (68, 39408), (69, 39390), (79, 39330), (87,  
39264), (91, 39231), (95, 39213), (103, 39177), (110, 39147),

Gene: Gail\_62 Start: 40003, Stop: 39377, Start Num: 9

Candidate Starts for Gail\_62:

(Start: 9 @40003 has 573 MA's), (16, 39967), (Start: 21 @39910 has 22 MA's), (Start: 37 @39862 has  
23 MA's), (Start: 47 @39805 has 1 MA's), (60, 39727), (69, 39661), (76, 39619), (82, 39580), (84,  
39556), (87, 39535), (103, 39448), (111, 39415),

Gene: Gandalf20\_57 Start: 40992, Stop: 40345, Start Num: 12

Candidate Starts for Gandalf20\_57:

(Start: 12 @40992 has 28 MA's), (Start: 29 @40869 has 115 MA's), (Start: 41 @40818 has 29 MA's), (Start: 44 @40806 has 4 MA's), (58, 40725), (63, 40677), (68, 40656), (69, 40638), (79, 40578), (87, 40512), (91, 40479), (95, 40461), (103, 40425), (110, 40392), (111, 40389),

Gene: Garak\_63 Start: 38202, Stop: 37570, Start Num: 9

Candidate Starts for Garak\_63:

(Start: 9 @38202 has 573 MA's), (Start: 21 @38109 has 22 MA's), (Start: 37 @38055 has 23 MA's), (Start: 47 @37998 has 1 MA's), (61, 37914), (69, 37854), (87, 37728), (91, 37695), (95, 37677), (103, 37641), (108, 37623), (110, 37611), (111, 37608),

Gene: GaugeLDP\_56 Start: 38955, Stop: 38323, Start Num: 9

Candidate Starts for GaugeLDP\_56:

(Start: 9 @38955 has 573 MA's), (Start: 21 @38862 has 22 MA's), (Start: 37 @38808 has 23 MA's), (Start: 47 @38751 has 1 MA's), (60, 38673), (61, 38667), (69, 38607), (80, 38541), (82, 38526), (87, 38481), (91, 38448), (103, 38394),

Gene: Gemma\_61 Start: 38780, Stop: 38121, Start Num: 9

Candidate Starts for Gemma\_61:

(Start: 9 @38780 has 573 MA's), (Start: 21 @38687 has 22 MA's), (Start: 33 @38633 has 2 MA's), (Start: 37 @38621 has 23 MA's), (Start: 41 @38594 has 29 MA's), (60, 38474), (76, 38366), (79, 38348), (80, 38342), (91, 38249), (95, 38231), (103, 38195), (108, 38177), (110, 38165),

Gene: George\_51 Start: 38308, Stop: 37814, Start Num: 37

Candidate Starts for George\_51:

(Start: 9 @38473 has 573 MA's), (Start: 21 @38380 has 22 MA's), (Start: 25 @38362 has 1 MA's), (Start: 33 @38320 has 2 MA's), (Start: 37 @38308 has 23 MA's), (Start: 41 @38281 has 29 MA's), (Start: 44 @38269 has 4 MA's), (Start: 53 @38218 has 4 MA's), (80, 38041), (81, 38032), (83, 38011), (86, 37996), (87, 37981), (89, 37975), (91, 37948), (95, 37930), (101, 37903), (103, 37894), (108, 37876), (110, 37864), (111, 37861),

Gene: Georgie2\_60 Start: 39101, Stop: 38469, Start Num: 9

Candidate Starts for Georgie2\_60:

(Start: 9 @39101 has 573 MA's), (Start: 21 @39008 has 22 MA's), (Start: 37 @38954 has 23 MA's), (Start: 47 @38897 has 1 MA's), (69, 38753), (79, 38693), (87, 38627), (91, 38594), (95, 38576), (103, 38540),

Gene: Geostin\_52 Start: 30569, Stop: 29937, Start Num: 9

Candidate Starts for Geostin\_52:

(Start: 9 @30569 has 573 MA's), (Start: 13 @30551 has 45 MA's), (15, 30539), (Start: 47 @30371 has 1 MA's), (50, 30347), (67, 30245), (79, 30164), (87, 30098), (96, 30044), (97, 30041),

Gene: Ghoulboy\_56 Start: 39276, Stop: 38614, Start Num: 9

Candidate Starts for Ghoulboy\_56:

(Start: 9 @39276 has 573 MA's), (Start: 21 @39183 has 22 MA's), (Start: 25 @39165 has 1 MA's), (Start: 33 @39123 has 2 MA's), (Start: 37 @39111 has 23 MA's), (Start: 41 @39084 has 29 MA's), (Start: 44 @39072 has 4 MA's), (69, 38907), (80, 38841), (81, 38832), (83, 38811), (87, 38781), (89, 38775), (91, 38748), (101, 38703), (103, 38694), (108, 38676), (110, 38664), (111, 38661),

Gene: Gilberta\_60 Start: 38651, Stop: 38004, Start Num: 9

Candidate Starts for Gilberta\_60:

(Start: 9 @38651 has 573 MA's), (Start: 21 @38558 has 22 MA's), (Start: 37 @38504 has 23 MA's), (Start: 41 @38477 has 29 MA's), (Start: 47 @38447 has 1 MA's), (61, 38351), (69, 38291), (80, 38225), (82, 38210), (87, 38165), (90, 38156), (91, 38132), (103, 38078), (111, 38045),

Gene: GingkoMaracino\_62 Start: 38784, Stop: 38125, Start Num: 9

Candidate Starts for GingkoMaracino\_62:

(Start: 9 @38784 has 573 MA's), (Start: 21 @38691 has 22 MA's), (Start: 33 @38637 has 2 MA's), (Start: 37 @38625 has 23 MA's), (Start: 41 @38598 has 29 MA's), (60, 38478), (76, 38370), (79, 38352), (80, 38346), (95, 38235), (103, 38199), (108, 38181), (110, 38169),

Gene: GirlDinner\_39 Start: 28706, Stop: 29365, Start Num: 6

Candidate Starts for GirlDinner\_39:

(Start: 6 @28706 has 32 MA's), (15, 28754), (22, 28817), (Start: 43 @28907 has 1 MA's), (63, 29036), (82, 29156), (84, 29180), (87, 29201), (102, 29282),

Gene: Giroux\_59 Start: 38548, Stop: 37889, Start Num: 9

Candidate Starts for Giroux\_59:

(Start: 9 @38548 has 573 MA's), (Start: 21 @38455 has 22 MA's), (Start: 33 @38401 has 2 MA's), (Start: 37 @38389 has 23 MA's), (Start: 41 @38362 has 29 MA's), (Start: 45 @38347 has 1 MA's), (Start: 53 @38299 has 4 MA's), (60, 38242), (68, 38194), (79, 38116), (82, 38095), (83, 38080), (95, 37999), (103, 37963), (108, 37945), (119, 37897),

Gene: Gladiator\_58 Start: 37427, Stop: 36795, Start Num: 9

Candidate Starts for Gladiator\_58:

(Start: 9 @37427 has 573 MA's), (Start: 21 @37334 has 22 MA's), (Start: 37 @37280 has 23 MA's), (Start: 47 @37223 has 1 MA's), (61, 37139), (69, 37079), (87, 36953), (91, 36920), (95, 36902), (103, 36866), (108, 36848), (110, 36836), (111, 36833),

Gene: Goby\_39 Start: 28637, Stop: 29302, Start Num: 7

Candidate Starts for Goby\_39:

(Start: 7 @28637 has 37 MA's), (Start: 9 @28652 has 573 MA's), (11, 28655), (Start: 53 @28880 has 4 MA's), (60, 28937), (61, 28943), (63, 28964), (64, 28973), (71, 29009), (73, 29033), (76, 29045), (78, 29054), (79, 29063), (84, 29108), (87, 29129), (102, 29210), (107, 29231), (117, 29279),

Gene: Godpower\_40 Start: 28632, Stop: 29297, Start Num: 7

Candidate Starts for Godpower\_40:

(Start: 7 @28632 has 37 MA's), (Start: 9 @28647 has 573 MA's), (11, 28650), (Start: 37 @28791 has 23 MA's), (Start: 53 @28875 has 4 MA's), (60, 28932), (61, 28938), (63, 28959), (64, 28968), (71, 29004), (73, 29028), (76, 29040), (78, 29049), (79, 29058), (84, 29103), (87, 29124), (102, 29205), (107, 29226), (117, 29274),

Gene: Gollum\_48 Start: 35278, Stop: 34619, Start Num: 9

Candidate Starts for Gollum\_48:

(Start: 9 @35278 has 573 MA's), (Start: 26 @35155 has 3 MA's), (Start: 37 @35119 has 23 MA's), (Start: 41 @35092 has 29 MA's), (Start: 47 @35062 has 1 MA's), (Start: 52 @35032 has 1 MA's), (Start: 53 @35029 has 4 MA's), (54, 35023), (60, 34972), (67, 34927), (69, 34906), (79, 34846), (80, 34840), (108, 34675), (111, 34660),

Gene: Gompeii16\_53 Start: 39878, Stop: 39357, Start Num: 29

Candidate Starts for Gompeii16\_53:

(Start: 29 @39878 has 115 MA's), (Start: 37 @39854 has 23 MA's), (Start: 41 @39827 has 29 MA's), (Start: 44 @39815 has 4 MA's), (Start: 52 @39767 has 1 MA's), (67, 39668), (73, 39617), (87, 39521), (91, 39488), (95, 39470), (103, 39434), (110, 39404),

Gene: Goose\_56 Start: 37844, Stop: 37185, Start Num: 9

Candidate Starts for Goose\_56:

(Start: 9 @37844 has 573 MA's), (Start: 21 @37751 has 22 MA's), (Start: 37 @37685 has 23 MA's), (Start: 41 @37658 has 29 MA's), (Start: 53 @37595 has 4 MA's), (60, 37538), (68, 37490), (76, 37430), (79, 37412), (80, 37406), (82, 37391), (83, 37376), (101, 37268), (103, 37259), (108, 37241), (110, 37229), (119, 37193),

Gene: Graduation\_58 Start: 40445, Stop: 39924, Start Num: 29

Candidate Starts for Graduation\_58:

(Start: 29 @40445 has 115 MA's), (Start: 37 @40421 has 23 MA's), (Start: 41 @40394 has 29 MA's), (Start: 44 @40382 has 4 MA's), (Start: 52 @40334 has 1 MA's), (67, 40235), (73, 40184), (87, 40088), (88, 40085), (91, 40055), (95, 40037), (96, 40034), (103, 40001), (110, 39971), (111, 39968),

Gene: Gratitude\_58 Start: 38905, Stop: 38366, Start Num: 21

Candidate Starts for Gratitude\_58:

(Start: 9 @38998 has 573 MA's), (Start: 21 @38905 has 22 MA's), (Start: 37 @38851 has 23 MA's), (Start: 47 @38794 has 1 MA's), (57, 38740), (60, 38716), (61, 38710), (69, 38650), (79, 38590), (82, 38569), (87, 38524), (91, 38491), (103, 38437),

Gene: GrecoEtereo\_55 Start: 38850, Stop: 38329, Start Num: 29

Candidate Starts for GrecoEtereo\_55:

(Start: 29 @38850 has 115 MA's), (Start: 37 @38826 has 23 MA's), (Start: 41 @38799 has 29 MA's), (Start: 44 @38787 has 4 MA's), (Start: 52 @38739 has 1 MA's), (73, 38589), (88, 38490), (91, 38460), (95, 38442), (103, 38406), (110, 38376),

Gene: GreedyLawyer\_59 Start: 37718, Stop: 37086, Start Num: 9

Candidate Starts for GreedyLawyer\_59:

(Start: 9 @37718 has 573 MA's), (Start: 21 @37625 has 22 MA's), (Start: 37 @37571 has 23 MA's), (Start: 47 @37514 has 1 MA's), (60, 37436), (69, 37370), (82, 37289), (87, 37244), (91, 37211), (95, 37193), (103, 37157), (110, 37127), (111, 37124),

Gene: GreenWeasel\_41 Start: 28326, Stop: 28970, Start Num: 9

Candidate Starts for GreenWeasel\_41:

(Start: 9 @28326 has 573 MA's), (15, 28356), (Start: 43 @28509 has 1 MA's), (63, 28638), (79, 28737), (82, 28758), (84, 28782), (87, 28803), (89, 28809), (107, 28905),

Gene: Greg\_56 Start: 39091, Stop: 38570, Start Num: 29

Candidate Starts for Greg\_56:

(Start: 29 @39091 has 115 MA's), (Start: 37 @39067 has 23 MA's), (Start: 41 @39040 has 29 MA's), (Start: 44 @39028 has 4 MA's), (Start: 52 @38980 has 1 MA's), (73, 38830), (87, 38734), (88, 38731), (91, 38701), (95, 38683), (103, 38647), (110, 38617),

Gene: Gremlin23\_57 Start: 30569, Stop: 29937, Start Num: 9

Candidate Starts for Gremlin23\_57:

(Start: 9 @30569 has 573 MA's), (Start: 13 @30551 has 45 MA's), (15, 30539), (Start: 47 @30371 has 1 MA's), (50, 30347), (67, 30245), (79, 30164), (87, 30098), (96, 30044), (97, 30041),

Gene: Grif\_62 Start: 38973, Stop: 38314, Start Num: 9

Candidate Starts for Grif\_62:

(Start: 9 @38973 has 573 MA's), (Start: 21 @38880 has 22 MA's), (Start: 33 @38826 has 2 MA's), (Start: 37 @38814 has 23 MA's), (Start: 41 @38787 has 29 MA's), (60, 38667), (76, 38559), (79, 38541), (80, 38535), (95, 38424), (103, 38388), (108, 38370), (110, 38358),



Gene: Groundhog\_58 Start: 38129, Stop: 37476, Start Num: 9

Candidate Starts for Groundhog\_58:

(Start: 9 @38129 has 573 MA's), (Start: 21 @38036 has 22 MA's), (Start: 33 @37976 has 2 MA's), (Start: 37 @37964 has 23 MA's), (Start: 41 @37937 has 29 MA's), (51, 37880), (60, 37829), (61, 37823), (82, 37682), (83, 37667), (87, 37637), (91, 37604), (108, 37532), (109, 37523), (111, 37517), (117, 37493),

Gene: Groupthink\_63 Start: 38784, Stop: 38125, Start Num: 9

Candidate Starts for Groupthink\_63:

(Start: 9 @38784 has 573 MA's), (Start: 21 @38691 has 22 MA's), (Start: 33 @38637 has 2 MA's), (Start: 37 @38625 has 23 MA's), (Start: 41 @38598 has 29 MA's), (60, 38478), (76, 38370), (79, 38352), (80, 38346), (91, 38253), (95, 38235), (103, 38199), (108, 38181), (110, 38169),

Gene: Grub\_62 Start: 38890, Stop: 38231, Start Num: 9

Candidate Starts for Grub\_62:

(Start: 9 @38890 has 573 MA's), (Start: 21 @38797 has 22 MA's), (Start: 33 @38743 has 2 MA's), (Start: 37 @38731 has 23 MA's), (Start: 41 @38704 has 29 MA's), (60, 38584), (76, 38476), (79, 38458), (80, 38452), (95, 38341), (103, 38305), (108, 38287), (110, 38275),

Gene: Grum1\_62 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for Grum1\_62:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's), (Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79, 38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: Gruunaga\_61 Start: 38126, Stop: 37494, Start Num: 9

Candidate Starts for Gruunaga\_61:

(Start: 9 @38126 has 573 MA's), (Start: 21 @38033 has 22 MA's), (Start: 37 @37979 has 23 MA's), (Start: 47 @37922 has 1 MA's), (61, 37838), (69, 37778), (87, 37652), (91, 37619), (95, 37601), (103, 37565), (108, 37547), (110, 37535), (111, 37532),

Gene: GtownJaz\_62 Start: 38900, Stop: 38241, Start Num: 9

Candidate Starts for GtownJaz\_62:

(Start: 9 @38900 has 573 MA's), (Start: 21 @38807 has 22 MA's), (Start: 33 @38753 has 2 MA's), (Start: 37 @38741 has 23 MA's), (Start: 41 @38714 has 29 MA's), (60, 38594), (76, 38486), (79, 38468), (80, 38462), (95, 38351), (103, 38315), (108, 38297), (110, 38285),

Gene: Gwendoluna\_58 Start: 41151, Stop: 40573, Start Num: 20

Candidate Starts for Gwendoluna\_58:

(Start: 20 @41151 has 38 MA's), (Start: 29 @41094 has 115 MA's), (Start: 37 @41070 has 23 MA's), (Start: 41 @41043 has 29 MA's), (Start: 44 @41031 has 4 MA's), (Start: 52 @40983 has 1 MA's), (73, 40833), (91, 40704), (95, 40686), (103, 40650), (110, 40620),

Gene: Gyzlar\_51 Start: 37093, Stop: 36569, Start Num: 29

Candidate Starts for Gyzlar\_51:

(Start: 29 @37093 has 115 MA's), (Start: 37 @37069 has 23 MA's), (Start: 41 @37042 has 29 MA's), (Start: 44 @37030 has 4 MA's), (Start: 52 @36982 has 1 MA's), (73, 36832), (87, 36736), (88, 36733), (91, 36703), (95, 36685), (103, 36649), (110, 36616), (111, 36613),

Gene: HINdeR\_52 Start: 39718, Stop: 39071, Start Num: 9

Candidate Starts for HINdeR\_52:

(Start: 9 @39718 has 573 MA's), (Start: 21 @39625 has 22 MA's), (Start: 24 @39610 has 2 MA's), (Start: 37 @39559 has 23 MA's), (Start: 41 @39532 has 29 MA's), (Start: 44 @39520 has 4 MA's), (Start: 53 @39469 has 4 MA's), (60, 39424), (63, 39397), (76, 39316), (80, 39292), (83, 39262), (87, 39232), (92, 39196), (95, 39181), (101, 39154), (103, 39145), (110, 39115), (119, 39079),

Gene: Haizum\_41 Start: 29074, Stop: 29736, Start Num: 6

Candidate Starts for Haizum\_41:

(3, 28807), (Start: 6 @29074 has 32 MA's), (15, 29122), (22, 29185), (Start: 43 @29275 has 1 MA's), (Start: 53 @29320 has 4 MA's), (63, 29404), (82, 29524), (84, 29548), (87, 29569), (102, 29650), (107, 29668), (109, 29683), (117, 29716),

Gene: HamSlice\_53 Start: 38137, Stop: 37478, Start Num: 9

Candidate Starts for HamSlice\_53:

(Start: 9 @38137 has 573 MA's), (Start: 21 @38044 has 22 MA's), (Start: 25 @38026 has 1 MA's), (Start: 33 @37990 has 2 MA's), (Start: 37 @37978 has 23 MA's), (Start: 41 @37951 has 29 MA's), (Start: 45 @37936 has 1 MA's), (60, 37831), (79, 37705), (80, 37699), (82, 37684), (83, 37669), (95, 37588), (101, 37561), (103, 37552), (119, 37486),

Gene: Hami1\_48 Start: 33928, Stop: 33407, Start Num: 29

Candidate Starts for Hami1\_48:

(Start: 29 @33928 has 115 MA's), (Start: 37 @33904 has 23 MA's), (Start: 41 @33877 has 29 MA's), (Start: 44 @33865 has 4 MA's), (Start: 52 @33817 has 1 MA's), (73, 33667), (87, 33571), (88, 33568), (91, 33538), (95, 33520), (103, 33484), (110, 33454),

Gene: Hammer\_61 Start: 37586, Stop: 37101, Start Num: 37

Candidate Starts for Hammer\_61:

(Start: 9 @37733 has 573 MA's), (Start: 21 @37640 has 22 MA's), (Start: 37 @37586 has 23 MA's), (Start: 47 @37529 has 1 MA's), (61, 37445), (69, 37385), (87, 37259), (91, 37226), (95, 37208), (103, 37172), (108, 37154), (110, 37142), (111, 37139),

Gene: HanShotFirst\_55 Start: 39390, Stop: 38869, Start Num: 29

Candidate Starts for HanShotFirst\_55:

(Start: 29 @39390 has 115 MA's), (Start: 37 @39366 has 23 MA's), (Start: 41 @39339 has 29 MA's), (Start: 44 @39327 has 4 MA's), (Start: 52 @39279 has 1 MA's), (73, 39129), (87, 39033), (88, 39030), (91, 39000), (95, 38982), (103, 38946), (110, 38916), (114, 38901),

Gene: Hank144\_41 Start: 29070, Stop: 29729, Start Num: 6

Candidate Starts for Hank144\_41:

(3, 28800), (Start: 6 @29070 has 32 MA's), (15, 29118), (17, 29133), (19, 29154), (22, 29181), (Start: 43 @29271 has 1 MA's), (63, 29400), (82, 29520), (84, 29544), (87, 29565), (102, 29646),

Gene: Hanray\_57 Start: 38790, Stop: 38278, Start Num: 26

Candidate Starts for Hanray\_57:

(Start: 9 @38907 has 573 MA's), (Start: 21 @38814 has 22 MA's), (Start: 26 @38790 has 3 MA's), (Start: 37 @38766 has 23 MA's), (Start: 41 @38739 has 29 MA's), (Start: 45 @38724 has 1 MA's), (60, 38628), (61, 38622), (67, 38583), (69, 38562), (80, 38496), (87, 38436), (91, 38403), (103, 38349), (110, 38319),

Gene: Happiness\_54 Start: 38125, Stop: 37466, Start Num: 9

Candidate Starts for Happiness\_54:

(Start: 9 @38125 has 573 MA's), (Start: 21 @38032 has 22 MA's), (Start: 33 @37978 has 2 MA's), (Start: 37 @37966 has 23 MA's), (Start: 41 @37939 has 29 MA's), (Start: 45 @37924 has 1 MA's), (60, 37819), (79, 37693), (82, 37672), (83, 37657), (95, 37576), (101, 37549), (103, 37540), (119, 37474),

Gene: Harlequin\_47 Start: 35064, Stop: 34405, Start Num: 9

Candidate Starts for Harlequin\_47:

(Start: 9 @35064 has 573 MA's), (Start: 26 @34941 has 3 MA's), (Start: 37 @34905 has 23 MA's), (Start: 41 @34878 has 29 MA's), (Start: 47 @34848 has 1 MA's), (Start: 52 @34818 has 1 MA's), (Start: 53 @34815 has 4 MA's), (54, 34809), (60, 34758), (67, 34713), (69, 34692), (80, 34626), (108, 34461), (111, 34446),

Gene: HarryHoudini\_60 Start: 39184, Stop: 38552, Start Num: 9

Candidate Starts for HarryHoudini\_60:

(Start: 9 @39184 has 573 MA's), (Start: 21 @39091 has 22 MA's), (Start: 37 @39037 has 23 MA's), (Start: 47 @38980 has 1 MA's), (60, 38902), (61, 38896), (69, 38836), (79, 38776), (82, 38755), (87, 38710), (91, 38677), (103, 38623),

Gene: HarryOW\_54 Start: 38348, Stop: 37827, Start Num: 29

Candidate Starts for HarryOW\_54:

(Start: 29 @38348 has 115 MA's), (Start: 37 @38324 has 23 MA's), (Start: 41 @38297 has 29 MA's), (Start: 44 @38285 has 4 MA's), (Start: 52 @38237 has 1 MA's), (67, 38138), (73, 38087), (87, 37991), (91, 37958), (95, 37940), (103, 37904), (110, 37874),

Gene: HashRod\_63 Start: 38926, Stop: 38267, Start Num: 9

Candidate Starts for HashRod\_63:

(Start: 9 @38926 has 573 MA's), (Start: 21 @38833 has 22 MA's), (Start: 33 @38779 has 2 MA's), (Start: 37 @38767 has 23 MA's), (Start: 41 @38740 has 29 MA's), (60, 38620), (76, 38512), (79, 38494), (80, 38488), (95, 38377), (103, 38341), (108, 38323), (110, 38311),

Gene: HaugeAnator\_58 Start: 30975, Stop: 30343, Start Num: 9

Candidate Starts for HaugeAnator\_58:

(Start: 9 @30975 has 573 MA's), (Start: 13 @30957 has 45 MA's), (15, 30945), (22, 30885), (Start: 47 @30777 has 1 MA's), (48, 30759), (50, 30753), (80, 30564), (87, 30504),

Gene: HaveUMetTed\_63 Start: 38769, Stop: 38110, Start Num: 9

Candidate Starts for HaveUMetTed\_63:

(Start: 9 @38769 has 573 MA's), (Start: 21 @38676 has 22 MA's), (Start: 33 @38622 has 2 MA's), (Start: 37 @38610 has 23 MA's), (Start: 41 @38583 has 29 MA's), (60, 38463), (76, 38355), (79, 38337), (80, 38331), (91, 38238), (95, 38220), (103, 38184), (108, 38166), (110, 38154),

Gene: Heathen\_58 Start: 38240, Stop: 37578, Start Num: 9

Candidate Starts for Heathen\_58:

(Start: 9 @38240 has 573 MA's), (Start: 21 @38147 has 22 MA's), (Start: 33 @38093 has 2 MA's), (Start: 37 @38081 has 23 MA's), (Start: 41 @38054 has 29 MA's), (Start: 45 @38039 has 1 MA's), (Start: 53 @37991 has 4 MA's), (60, 37934), (68, 37886), (76, 37826), (80, 37802), (82, 37787), (83, 37772), (87, 37742), (95, 37691), (103, 37655), (108, 37637), (119, 37589),

Gene: Heffalump\_58 Start: 39874, Stop: 39242, Start Num: 9

Candidate Starts for Heffalump\_58:

(Start: 9 @39874 has 573 MA's), (Start: 21 @39781 has 22 MA's), (30, 39745), (Start: 37 @39727 has 23 MA's), (Start: 47 @39670 has 1 MA's), (61, 39586), (69, 39526), (79, 39466), (87, 39400), (91, 39367), (103, 39313),

Gene: HelDan\_58 Start: 38456, Stop: 37794, Start Num: 9

Candidate Starts for HelDan\_58:

(Start: 9 @38456 has 573 MA's), (Start: 21 @38363 has 22 MA's), (Start: 33 @38309 has 2 MA's), (Start: 37 @38297 has 23 MA's), (Start: 41 @38270 has 29 MA's), (Start: 45 @38255 has 1 MA's), (Start: 53 @38207 has 4 MA's), (60, 38150), (68, 38102), (76, 38042), (80, 38018), (82, 38003), (83, 37988), (87, 37958), (95, 37907), (103, 37871), (108, 37853), (119, 37805),

Gene: Heliosoles\_61 Start: 38787, Stop: 38128, Start Num: 9

Candidate Starts for Heliosoles\_61:

(Start: 9 @38787 has 573 MA's), (Start: 21 @38694 has 22 MA's), (Start: 33 @38640 has 2 MA's), (Start: 37 @38628 has 23 MA's), (Start: 41 @38601 has 29 MA's), (60, 38481), (76, 38373), (79, 38355), (80, 38349), (91, 38256), (95, 38238), (103, 38202), (108, 38184), (110, 38172),

Gene: Helmet\_63 Start: 38202, Stop: 37570, Start Num: 9

Candidate Starts for Helmet\_63:

(Start: 9 @38202 has 573 MA's), (Start: 21 @38109 has 22 MA's), (Start: 37 @38055 has 23 MA's), (Start: 47 @37998 has 1 MA's), (61, 37914), (69, 37854), (87, 37728), (91, 37695), (95, 37677), (103, 37641), (108, 37623), (110, 37611), (111, 37608),

Gene: Herbertwm\_57 Start: 38832, Stop: 38206, Start Num: 9

Candidate Starts for Herbertwm\_57:

(Start: 9 @38832 has 573 MA's), (Start: 21 @38739 has 22 MA's), (Start: 24 @38724 has 2 MA's), (Start: 37 @38691 has 23 MA's), (Start: 41 @38664 has 29 MA's), (Start: 47 @38634 has 1 MA's), (Start: 52 @38604 has 1 MA's), (57, 38580), (60, 38556), (61, 38550), (69, 38490), (79, 38430), (82, 38409), (83, 38394), (87, 38364), (91, 38331), (103, 38277), (110, 38247),

Gene: Hercules11\_62 Start: 38907, Stop: 38248, Start Num: 9

Candidate Starts for Hercules11\_62:

(Start: 9 @38907 has 573 MA's), (Start: 21 @38814 has 22 MA's), (Start: 33 @38760 has 2 MA's), (Start: 37 @38748 has 23 MA's), (Start: 41 @38721 has 29 MA's), (60, 38601), (76, 38493), (79, 38475), (80, 38469), (95, 38358), (103, 38322), (108, 38304), (110, 38292),

Gene: Hermia\_55 Start: 39523, Stop: 39002, Start Num: 29

Candidate Starts for Hermia\_55:

(Start: 29 @39523 has 115 MA's), (Start: 37 @39499 has 23 MA's), (Start: 41 @39472 has 29 MA's), (Start: 44 @39460 has 4 MA's), (Start: 52 @39412 has 1 MA's), (67, 39313), (73, 39262), (87, 39166), (91, 39133), (95, 39115), (103, 39079), (110, 39049),

Gene: HermioneGrange\_55 Start: 39118, Stop: 38471, Start Num: 12

Candidate Starts for HermioneGrange\_55:

(Start: 12 @39118 has 28 MA's), (Start: 29 @38995 has 115 MA's), (Start: 41 @38944 has 29 MA's), (Start: 44 @38932 has 4 MA's), (58, 38851), (63, 38803), (68, 38782), (69, 38764), (87, 38638), (91, 38605), (95, 38587), (103, 38551), (110, 38518), (111, 38515),

Gene: Hexamo\_61 Start: 37832, Stop: 37200, Start Num: 9

Candidate Starts for Hexamo\_61:

(Start: 9 @37832 has 573 MA's), (Start: 21 @37739 has 22 MA's), (Start: 37 @37685 has 23 MA's), (Start: 47 @37628 has 1 MA's), (61, 37544), (69, 37484), (87, 37358), (91, 37325), (95, 37307), (103, 37271), (108, 37253), (110, 37241), (111, 37238),

Gene: Hippo\_39 Start: 28192, Stop: 28857, Start Num: 7

Candidate Starts for Hippo\_39:

(Start: 7 @28192 has 37 MA's), (Start: 9 @28207 has 573 MA's), (11, 28210), (Start: 37 @28351 has 23 MA's), (Start: 53 @28435 has 4 MA's), (60, 28492), (61, 28498), (63, 28519), (71, 28564), (73, 28588), (76, 28600), (78, 28609), (79, 28618), (84, 28663), (87, 28684), (102, 28765), (107, 28786),

(117, 28834),

Gene: Hiro\_48 Start: 35540, Stop: 34881, Start Num: 9

Candidate Starts for Hiro\_48:

(Start: 9 @35540 has 573 MA's), (Start: 26 @35417 has 3 MA's), (Start: 37 @35381 has 23 MA's),  
(Start: 41 @35354 has 29 MA's), (Start: 47 @35324 has 1 MA's), (Start: 52 @35294 has 1 MA's),  
(Start: 53 @35291 has 4 MA's), (54, 35285), (60, 35234), (67, 35189), (69, 35168), (80, 35102), (108,  
34937), (111, 34922),

Gene: Horex\_58 Start: 38740, Stop: 38294, Start Num: 45

Candidate Starts for Horex\_58:

(Start: 9 @38923 has 573 MA's), (Start: 21 @38830 has 22 MA's), (Start: 26 @38806 has 3 MA's),  
(Start: 37 @38782 has 23 MA's), (Start: 41 @38755 has 29 MA's), (Start: 45 @38740 has 1 MA's), (60,  
38644), (61, 38638), (67, 38599), (69, 38578), (80, 38512), (87, 38452), (91, 38419), (103, 38365),  
(110, 38335),

Gene: Holli\_54 Start: 37929, Stop: 37270, Start Num: 9

Candidate Starts for Holli\_54:

(Start: 9 @37929 has 573 MA's), (Start: 21 @37836 has 22 MA's), (Start: 25 @37818 has 1 MA's),  
(Start: 33 @37782 has 2 MA's), (Start: 37 @37770 has 23 MA's), (Start: 41 @37743 has 29 MA's),  
(Start: 45 @37728 has 1 MA's), (60, 37623), (79, 37497), (80, 37491), (82, 37476), (83, 37461), (95,  
37380), (101, 37353), (103, 37344), (119, 37278),

Gene: Homines\_47 Start: 35032, Stop: 34511, Start Num: 29

Candidate Starts for Homines\_47:

(Start: 29 @35032 has 115 MA's), (Start: 37 @35008 has 23 MA's), (Start: 41 @34981 has 29 MA's),  
(Start: 44 @34969 has 4 MA's), (Start: 52 @34921 has 1 MA's), (87, 34675), (91, 34642), (95, 34624),  
(103, 34588), (110, 34558),

Gene: Hookmount\_57 Start: 38515, Stop: 37853, Start Num: 9

Candidate Starts for Hookmount\_57:

(Start: 9 @38515 has 573 MA's), (Start: 21 @38422 has 22 MA's), (Start: 24 @38407 has 2 MA's),  
(Start: 33 @38368 has 2 MA's), (Start: 37 @38356 has 23 MA's), (Start: 41 @38329 has 29 MA's), (60,  
38209), (68, 38161), (76, 38101), (79, 38083), (80, 38077), (82, 38062), (83, 38047), (103, 37930),  
(108, 37912),

Gene: Hoot\_55 Start: 35569, Stop: 34937, Start Num: 9

Candidate Starts for Hoot\_55:

(Start: 9 @35569 has 573 MA's), (Start: 21 @35476 has 22 MA's), (Start: 37 @35422 has 23 MA's),  
(Start: 47 @35365 has 1 MA's), (60, 35287), (69, 35221), (82, 35140), (87, 35095), (91, 35062), (95,  
35044), (103, 35008), (110, 34978), (111, 34975),

Gene: Hope4ever\_56 Start: 39755, Stop: 39234, Start Num: 29

Candidate Starts for Hope4ever\_56:

(Start: 29 @39755 has 115 MA's), (Start: 37 @39731 has 23 MA's), (Start: 41 @39704 has 29 MA's),  
(Start: 44 @39692 has 4 MA's), (Start: 52 @39644 has 1 MA's), (73, 39494), (87, 39398), (91, 39365),  
(95, 39347), (103, 39311), (110, 39281),

Gene: HortumSL17\_59 Start: 38686, Stop: 38225, Start Num: 41

Candidate Starts for HortumSL17\_59:

(Start: 9 @38854 has 573 MA's), (Start: 21 @38761 has 22 MA's), (Start: 26 @38737 has 3 MA's),  
(Start: 37 @38713 has 23 MA's), (Start: 41 @38686 has 29 MA's), (Start: 45 @38671 has 1 MA's), (60,  
38575), (61, 38569), (67, 38530), (69, 38509), (80, 38443), (87, 38383), (91, 38350), (103, 38296),

Gene: Houdini22\_55 Start: 38143, Stop: 37484, Start Num: 9

Candidate Starts for Houdini22\_55:

(Start: 9 @38143 has 573 MA's), (Start: 21 @38050 has 22 MA's), (Start: 25 @38032 has 1 MA's), (Start: 33 @37996 has 2 MA's), (Start: 37 @37984 has 23 MA's), (Start: 41 @37957 has 29 MA's), (Start: 45 @37942 has 1 MA's), (60, 37837), (79, 37711), (80, 37705), (82, 37690), (83, 37675), (95, 37594), (101, 37567), (103, 37558), (119, 37492),

Gene: HuhtaEnerson15\_53 Start: 38473, Stop: 37814, Start Num: 9

Candidate Starts for HuhtaEnerson15\_53:

(Start: 9 @38473 has 573 MA's), (Start: 21 @38380 has 22 MA's), (Start: 25 @38362 has 1 MA's), (Start: 33 @38320 has 2 MA's), (Start: 37 @38308 has 23 MA's), (Start: 41 @38281 has 29 MA's), (Start: 44 @38269 has 4 MA's), (Start: 53 @38218 has 4 MA's), (80, 38041), (81, 38032), (83, 38011), (86, 37996), (87, 37981), (89, 37975), (91, 37948), (95, 37930), (101, 37903), (103, 37894), (108, 37876), (110, 37864), (111, 37861),

Gene: Hutc2\_59 Start: 38200, Stop: 37553, Start Num: 9

Candidate Starts for Hutc2\_59:

(Start: 9 @38200 has 573 MA's), (Start: 21 @38107 has 22 MA's), (Start: 37 @38053 has 23 MA's), (Start: 41 @38026 has 29 MA's), (Start: 47 @37996 has 1 MA's), (61, 37900), (69, 37840), (80, 37774), (82, 37759), (87, 37714), (90, 37705), (91, 37681), (103, 37627), (111, 37594),

Gene: Huxley\_55 Start: 38200, Stop: 37541, Start Num: 9

Candidate Starts for Huxley\_55:

(Start: 9 @38200 has 573 MA's), (Start: 21 @38107 has 22 MA's), (Start: 25 @38089 has 1 MA's), (Start: 33 @38053 has 2 MA's), (Start: 37 @38041 has 23 MA's), (Start: 41 @38014 has 29 MA's), (Start: 45 @37999 has 1 MA's), (60, 37894), (79, 37768), (80, 37762), (82, 37747), (83, 37732), (95, 37651), (101, 37624), (103, 37615), (119, 37549),

Gene: Hydra\_41 Start: 28507, Stop: 29013, Start Num: 37

Candidate Starts for Hydra\_41:

(Start: 7 @28348 has 37 MA's), (Start: 9 @28363 has 573 MA's), (11, 28366), (Start: 37 @28507 has 23 MA's), (Start: 53 @28591 has 4 MA's), (60, 28648), (61, 28654), (63, 28675), (64, 28684), (71, 28720), (73, 28744), (76, 28756), (78, 28765), (79, 28774), (84, 28819), (102, 28921), (107, 28942), (117, 28990),

Gene: ICleared\_55 Start: 38168, Stop: 37509, Start Num: 9

Candidate Starts for ICleared\_55:

(Start: 9 @38168 has 573 MA's), (Start: 21 @38075 has 22 MA's), (Start: 25 @38057 has 1 MA's), (Start: 33 @38021 has 2 MA's), (Start: 37 @38009 has 23 MA's), (Start: 41 @37982 has 29 MA's), (Start: 45 @37967 has 1 MA's), (60, 37862), (79, 37736), (80, 37730), (82, 37715), (83, 37700), (95, 37619), (101, 37592), (103, 37583), (119, 37517),

Gene: ILeeKay\_58 Start: 39619, Stop: 39098, Start Num: 29

Candidate Starts for ILeeKay\_58:

(Start: 29 @39619 has 115 MA's), (Start: 37 @39595 has 23 MA's), (Start: 41 @39568 has 29 MA's), (Start: 44 @39556 has 4 MA's), (Start: 52 @39508 has 1 MA's), (67, 39409), (73, 39358), (88, 39259), (91, 39229), (95, 39211), (103, 39175), (110, 39145),

Gene: Ibantik\_36 Start: 17326, Stop: 16781, Start Num: 32

Candidate Starts for Ibantik\_36:

(11, 17482), (Start: 14 @17461 has 1 MA's), (16, 17449), (18, 17434), (Start: 24 @17377 has 2 MA's), (31, 17329), (Start: 32 @17326 has 1 MA's), (34, 17323), (39, 17293), (40, 17290), (67, 17101), (90,

16942), (93, 16912), (95, 16900), (120, 16792),

Gene: Iceman\_55 Start: 38425, Stop: 37766, Start Num: 9

Candidate Starts for Iceman\_55:

(Start: 9 @38425 has 573 MA's), (Start: 21 @38332 has 22 MA's), (Start: 25 @38314 has 1 MA's), (Start: 33 @38278 has 2 MA's), (Start: 37 @38266 has 23 MA's), (Start: 41 @38239 has 29 MA's), (Start: 45 @38224 has 1 MA's), (60, 38119), (79, 37993), (80, 37987), (82, 37972), (83, 37957), (95, 37876), (101, 37849), (103, 37840), (119, 37774),

Gene: Ichabod\_58 Start: 40432, Stop: 39908, Start Num: 29

Candidate Starts for Ichabod\_58:

(Start: 29 @40432 has 115 MA's), (Start: 37 @40408 has 23 MA's), (Start: 41 @40381 has 29 MA's), (Start: 44 @40369 has 4 MA's), (Start: 52 @40321 has 1 MA's), (67, 40222), (73, 40171), (87, 40075), (88, 40072), (91, 40042), (95, 40024), (103, 39988), (110, 39955), (111, 39952),

Gene: Idleandcovert\_58 Start: 38549, Stop: 37890, Start Num: 9

Candidate Starts for Idleandcovert\_58:

(Start: 9 @38549 has 573 MA's), (Start: 21 @38456 has 22 MA's), (Start: 33 @38402 has 2 MA's), (Start: 37 @38390 has 23 MA's), (Start: 41 @38363 has 29 MA's), (Start: 45 @38348 has 1 MA's), (Start: 53 @38300 has 4 MA's), (60, 38243), (68, 38195), (79, 38117), (82, 38096), (83, 38081), (95, 38000), (103, 37964), (108, 37946), (119, 37898),

Gene: IgnatiusPatJac\_55 Start: 39084, Stop: 38563, Start Num: 29

Candidate Starts for IgnatiusPatJac\_55:

(Start: 29 @39084 has 115 MA's), (Start: 37 @39060 has 23 MA's), (Start: 41 @39033 has 29 MA's), (Start: 44 @39021 has 4 MA's), (Start: 52 @38973 has 1 MA's), (67, 38874), (73, 38823), (87, 38727), (91, 38694), (95, 38676), (103, 38640), (110, 38610),

Gene: Immanuel3\_57 Start: 30978, Stop: 30346, Start Num: 9

Candidate Starts for Immanuel3\_57:

(Start: 9 @30978 has 573 MA's), (Start: 13 @30960 has 45 MA's), (15, 30948), (22, 30888), (Start: 47 @30780 has 1 MA's), (48, 30762), (50, 30756), (80, 30567), (87, 30507),

Gene: Indigo\_38 Start: 27816, Stop: 28481, Start Num: 7

Candidate Starts for Indigo\_38:

(Start: 7 @27816 has 37 MA's), (Start: 9 @27831 has 573 MA's), (11, 27834), (Start: 37 @27975 has 23 MA's), (Start: 53 @28059 has 4 MA's), (60, 28116), (61, 28122), (63, 28143), (64, 28152), (71, 28188), (73, 28212), (76, 28224), (78, 28233), (79, 28242), (84, 28287), (102, 28389), (107, 28410), (117, 28458),

Gene: Indra\_64 Start: 38203, Stop: 37571, Start Num: 9

Candidate Starts for Indra\_64:

(Start: 9 @38203 has 573 MA's), (Start: 21 @38110 has 22 MA's), (Start: 37 @38056 has 23 MA's), (Start: 47 @37999 has 1 MA's), (61, 37915), (69, 37855), (87, 37729), (91, 37696), (95, 37678), (103, 37642), (108, 37624), (110, 37612), (111, 37609),

Gene: Insomnia\_60 Start: 38618, Stop: 38064, Start Num: 21

Candidate Starts for Insomnia\_60:

(Start: 9 @38711 has 573 MA's), (Start: 21 @38618 has 22 MA's), (Start: 37 @38564 has 23 MA's), (Start: 41 @38537 has 29 MA's), (Start: 47 @38507 has 1 MA's), (61, 38411), (69, 38351), (80, 38285), (82, 38270), (87, 38225), (90, 38216), (91, 38192), (103, 38138), (111, 38105),

Gene: Inyanga\_51 Start: 37375, Stop: 36797, Start Num: 20

Candidate Starts for Inyanga\_51:

(Start: 20 @37375 has 38 MA's), (Start: 29 @37318 has 115 MA's), (Start: 37 @37294 has 23 MA's), (Start: 41 @37267 has 29 MA's), (Start: 44 @37255 has 4 MA's), (Start: 52 @37207 has 1 MA's), (67, 37108), (73, 37057), (87, 36961), (91, 36928), (95, 36910), (103, 36874), (110, 36844),

Gene: Iqorha\_51 Start: 37374, Stop: 36796, Start Num: 20

Candidate Starts for Iqorha\_51:

(Start: 20 @37374 has 38 MA's), (Start: 29 @37317 has 115 MA's), (Start: 37 @37293 has 23 MA's), (Start: 41 @37266 has 29 MA's), (Start: 44 @37254 has 4 MA's), (Start: 52 @37206 has 1 MA's), (67, 37107), (73, 37056), (87, 36960), (91, 36927), (95, 36909), (103, 36873), (110, 36843),

Gene: Iracema64\_56 Start: 38403, Stop: 37744, Start Num: 9

Candidate Starts for Iracema64\_56:

(Start: 9 @38403 has 573 MA's), (Start: 21 @38310 has 22 MA's), (Start: 25 @38292 has 1 MA's), (Start: 33 @38256 has 2 MA's), (Start: 37 @38244 has 23 MA's), (Start: 41 @38217 has 29 MA's), (Start: 45 @38202 has 1 MA's), (60, 38097), (79, 37971), (80, 37965), (82, 37950), (83, 37935), (95, 37854), (101, 37827), (103, 37818), (119, 37752),

Gene: IronMan\_58 Start: 39806, Stop: 39267, Start Num: 21

Candidate Starts for IronMan\_58:

(Start: 21 @39806 has 22 MA's), (Start: 37 @39752 has 23 MA's), (Start: 41 @39725 has 29 MA's), (Start: 47 @39695 has 1 MA's), (60, 39617), (61, 39611), (69, 39551), (82, 39470), (87, 39425), (91, 39392), (103, 39338), (110, 39308),

Gene: Isca\_57 Start: 38025, Stop: 37363, Start Num: 9

Candidate Starts for Isca\_57:

(Start: 9 @38025 has 573 MA's), (Start: 21 @37932 has 22 MA's), (Start: 33 @37878 has 2 MA's), (Start: 37 @37866 has 23 MA's), (Start: 41 @37839 has 29 MA's), (Start: 45 @37824 has 1 MA's), (Start: 53 @37776 has 4 MA's), (60, 37719), (68, 37671), (76, 37611), (79, 37593), (80, 37587), (82, 37572), (83, 37557), (87, 37527), (95, 37476), (103, 37440), (108, 37422), (119, 37374),

Gene: Isiphiwo\_58 Start: 37285, Stop: 36653, Start Num: 9

Candidate Starts for Isiphiwo\_58:

(Start: 9 @37285 has 573 MA's), (Start: 21 @37192 has 22 MA's), (Start: 37 @37138 has 23 MA's), (Start: 47 @37081 has 1 MA's), (60, 37003), (69, 36937), (82, 36856), (87, 36811), (91, 36778), (95, 36760), (103, 36724), (110, 36694), (111, 36691),

Gene: Issmi\_41 Start: 29674, Stop: 30336, Start Num: 6

Candidate Starts for Issmi\_41:

(3, 29404), (Start: 6 @29674 has 32 MA's), (15, 29722), (22, 29785), (Start: 43 @29875 has 1 MA's), (Start: 53 @29920 has 4 MA's), (63, 30004), (82, 30124), (84, 30148), (102, 30250), (109, 30283), (117, 30316),

Gene: Itza\_41 Start: 28661, Stop: 29311, Start Num: 9

Candidate Starts for Itza\_41:

(Start: 7 @28646 has 37 MA's), (Start: 9 @28661 has 573 MA's), (Start: 36 @28802 has 2 MA's), (60, 28946), (73, 29042), (84, 29117), (102, 29219), (107, 29240), (109, 29255),

Gene: Iwokeuplikedis\_61 Start: 38724, Stop: 38185, Start Num: 21

Candidate Starts for Iwokeuplikedis\_61:

(Start: 21 @38724 has 22 MA's), (Start: 37 @38670 has 23 MA's), (Start: 41 @38643 has 29 MA's), (Start: 47 @38613 has 1 MA's), (57, 38559), (60, 38535), (65, 38496), (69, 38469), (82, 38388), (87, 38343), (95, 38292), (103, 38256),



Gene: Izzy\_40 Start: 28383, Stop: 28889, Start Num: 37

Candidate Starts for Izzy\_40:

(Start: 7 @28224 has 37 MA's), (Start: 9 @28239 has 573 MA's), (11, 28242), (Start: 37 @28383 has 23 MA's), (Start: 53 @28467 has 4 MA's), (60, 28524), (61, 28530), (63, 28551), (64, 28560), (71, 28596), (73, 28620), (76, 28632), (77, 28635), (78, 28641), (79, 28650), (84, 28695), (87, 28716), (102, 28797), (107, 28818), (117, 28866),

Gene: JC27\_57 Start: 39535, Stop: 39011, Start Num: 29

Candidate Starts for JC27\_57:

(Start: 29 @39535 has 115 MA's), (Start: 37 @39511 has 23 MA's), (Start: 41 @39484 has 29 MA's), (Start: 44 @39472 has 4 MA's), (Start: 52 @39424 has 1 MA's), (67, 39325), (73, 39274), (87, 39178), (91, 39145), (95, 39127), (103, 39091), (110, 39058), (111, 39055),

Gene: JF2\_56 Start: 36726, Stop: 36064, Start Num: 9

Candidate Starts for JF2\_56:

(Start: 9 @36726 has 573 MA's), (Start: 21 @36633 has 22 MA's), (Start: 33 @36579 has 2 MA's), (Start: 37 @36567 has 23 MA's), (Start: 41 @36540 has 29 MA's), (Start: 45 @36525 has 1 MA's), (Start: 53 @36477 has 4 MA's), (60, 36420), (68, 36372), (76, 36312), (79, 36294), (80, 36288), (82, 36273), (83, 36258), (87, 36228), (95, 36177), (103, 36141), (108, 36123), (119, 36075),

Gene: JF4\_56 Start: 36726, Stop: 36064, Start Num: 9

Candidate Starts for JF4\_56:

(Start: 9 @36726 has 573 MA's), (Start: 21 @36633 has 22 MA's), (Start: 33 @36579 has 2 MA's), (Start: 37 @36567 has 23 MA's), (Start: 41 @36540 has 29 MA's), (Start: 45 @36525 has 1 MA's), (Start: 53 @36477 has 4 MA's), (60, 36420), (68, 36372), (76, 36312), (79, 36294), (80, 36288), (82, 36273), (83, 36258), (87, 36228), (95, 36177), (103, 36141), (108, 36123), (119, 36075),

Gene: JHC117\_61 Start: 38897, Stop: 38238, Start Num: 9

Candidate Starts for JHC117\_61:

(Start: 9 @38897 has 573 MA's), (Start: 21 @38804 has 22 MA's), (Start: 33 @38750 has 2 MA's), (Start: 37 @38738 has 23 MA's), (Start: 41 @38711 has 29 MA's), (60, 38591), (76, 38483), (79, 38465), (80, 38459), (95, 38348), (103, 38312), (108, 38294), (110, 38282),

Gene: JPandJE\_58 Start: 31440, Stop: 30808, Start Num: 9

Candidate Starts for JPandJE\_58:

(Start: 9 @31440 has 573 MA's), (Start: 13 @31422 has 45 MA's), (15, 31410), (22, 31350), (Start: 47 @31242 has 1 MA's), (48, 31224), (50, 31218), (64, 31125), (80, 31029), (87, 30969),

Gene: JSwag\_65 Start: 38229, Stop: 37597, Start Num: 9

Candidate Starts for JSwag\_65:

(Start: 9 @38229 has 573 MA's), (Start: 13 @38211 has 45 MA's), (Start: 21 @38136 has 22 MA's), (Start: 41 @38058 has 29 MA's), (Start: 45 @38043 has 1 MA's), (Start: 47 @38028 has 1 MA's), (66, 37908), (67, 37905), (78, 37833), (82, 37803), (91, 37725), (103, 37671),

Gene: Jaan\_59 Start: 39966, Stop: 39427, Start Num: 21

Candidate Starts for Jaan\_59:

(Start: 21 @39966 has 22 MA's), (Start: 37 @39912 has 23 MA's), (Start: 41 @39885 has 29 MA's), (Start: 47 @39855 has 1 MA's), (60, 39777), (61, 39771), (69, 39711), (82, 39630), (87, 39585), (91, 39552), (103, 39498), (110, 39468),

Gene: Jabiru\_55 Start: 38377, Stop: 37715, Start Num: 9

Candidate Starts for Jabiru\_55:

(Start: 9 @38377 has 573 MA's), (Start: 21 @38284 has 22 MA's), (Start: 25 @38266 has 1 MA's), (Start: 33 @38224 has 2 MA's), (Start: 37 @38212 has 23 MA's), (Start: 41 @38185 has 29 MA's), (Start: 44 @38173 has 4 MA's), (69, 38008), (80, 37942), (81, 37933), (83, 37912), (87, 37882), (89, 37876), (91, 37849), (95, 37831), (101, 37804), (103, 37795), (108, 37777), (110, 37765), (111, 37762),

Gene: Jabith\_60 Start: 38712, Stop: 38065, Start Num: 9

Candidate Starts for Jabith\_60:

(Start: 9 @38712 has 573 MA's), (Start: 21 @38619 has 22 MA's), (Start: 37 @38565 has 23 MA's), (Start: 41 @38538 has 29 MA's), (Start: 47 @38508 has 1 MA's), (61, 38412), (69, 38352), (80, 38286), (82, 38271), (87, 38226), (90, 38217), (91, 38193), (103, 38139), (111, 38106),

Gene: JackSparrow\_57 Start: 39548, Stop: 39078, Start Num: 41

Candidate Starts for JackSparrow\_57:

(Start: 29 @39599 has 115 MA's), (Start: 37 @39575 has 23 MA's), (Start: 41 @39548 has 29 MA's), (Start: 44 @39536 has 4 MA's), (Start: 52 @39488 has 1 MA's), (67, 39389), (73, 39338), (87, 39242), (88, 39239), (91, 39209), (95, 39191), (103, 39155), (110, 39125),

Gene: Janus\_40 Start: 29046, Stop: 29705, Start Num: 6

Candidate Starts for Janus\_40:

(Start: 6 @29046 has 32 MA's), (15, 29094), (22, 29157), (Start: 43 @29247 has 1 MA's), (63, 29376), (82, 29496), (84, 29520), (87, 29541), (102, 29622),

Gene: Jash\_40 Start: 28336, Stop: 28842, Start Num: 37

Candidate Starts for Jash\_40:

(Start: 7 @28177 has 37 MA's), (Start: 9 @28192 has 573 MA's), (11, 28195), (Start: 37 @28336 has 23 MA's), (Start: 53 @28420 has 4 MA's), (60, 28477), (61, 28483), (63, 28504), (64, 28513), (71, 28549), (73, 28573), (76, 28585), (77, 28588), (78, 28594), (79, 28603), (84, 28648), (87, 28669), (102, 28750), (107, 28771), (117, 28819),

Gene: Jasper\_56 Start: 38179, Stop: 37709, Start Num: 41

Candidate Starts for Jasper\_56:

(Start: 29 @38230 has 115 MA's), (Start: 37 @38206 has 23 MA's), (Start: 41 @38179 has 29 MA's), (Start: 44 @38167 has 4 MA's), (Start: 52 @38119 has 1 MA's), (73, 37969), (87, 37873), (91, 37840), (95, 37822), (99, 37810), (103, 37786), (110, 37756),

Gene: Jaykayelowell\_53 Start: 38132, Stop: 37473, Start Num: 9

Candidate Starts for Jaykayelowell\_53:

(Start: 9 @38132 has 573 MA's), (Start: 21 @38039 has 22 MA's), (Start: 25 @38021 has 1 MA's), (Start: 33 @37985 has 2 MA's), (Start: 37 @37973 has 23 MA's), (Start: 41 @37946 has 29 MA's), (Start: 45 @37931 has 1 MA's), (60, 37826), (79, 37700), (80, 37694), (82, 37679), (83, 37664), (95, 37583), (101, 37556), (103, 37547), (119, 37481),

Gene: Jeeves\_63 Start: 38982, Stop: 38356, Start Num: 9

Candidate Starts for Jeeves\_63:

(Start: 9 @38982 has 573 MA's), (16, 38946), (Start: 21 @38889 has 22 MA's), (Start: 37 @38841 has 23 MA's), (Start: 47 @38784 has 1 MA's), (60, 38706), (69, 38640), (76, 38598), (82, 38559), (84, 38535), (87, 38514), (103, 38427), (111, 38394),

Gene: Jeffabunny\_61 Start: 37682, Stop: 37197, Start Num: 37

Candidate Starts for Jeffabunny\_61:

(Start: 9 @37829 has 573 MA's), (Start: 21 @37736 has 22 MA's), (Start: 37 @37682 has 23 MA's), (Start: 47 @37625 has 1 MA's), (61, 37541), (69, 37481), (87, 37355), (91, 37322), (95, 37304), (103,

37268), (108, 37250), (110, 37238), (111, 37235),

Gene: JenCasNa\_63 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for JenCasNa\_63:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's), (Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79, 38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: JeppNRM\_63 Start: 38785, Stop: 38126, Start Num: 9

Candidate Starts for JeppNRM\_63:

(Start: 9 @38785 has 573 MA's), (Start: 21 @38692 has 22 MA's), (Start: 33 @38638 has 2 MA's), (Start: 37 @38626 has 23 MA's), (Start: 41 @38599 has 29 MA's), (60, 38479), (76, 38371), (79, 38353), (80, 38347), (91, 38254), (95, 38236), (103, 38200), (108, 38182), (110, 38170),

Gene: Jerm\_61 Start: 39473, Stop: 38841, Start Num: 9

Candidate Starts for Jerm\_61:

(Start: 9 @39473 has 573 MA's), (Start: 21 @39380 has 22 MA's), (Start: 37 @39326 has 23 MA's), (Start: 47 @39269 has 1 MA's), (61, 39185), (69, 39125), (79, 39065), (87, 38999), (91, 38966), (103, 38912),

Gene: Jerm2\_56 Start: 39373, Stop: 38726, Start Num: 12

Candidate Starts for Jerm2\_56:

(Start: 12 @39373 has 28 MA's), (Start: 29 @39250 has 115 MA's), (Start: 41 @39199 has 29 MA's), (Start: 44 @39187 has 4 MA's), (58, 39106), (63, 39058), (68, 39037), (69, 39019), (87, 38893), (91, 38860), (95, 38842), (103, 38806), (110, 38773), (111, 38770),

Gene: Jester\_47 Start: 34995, Stop: 34336, Start Num: 9

Candidate Starts for Jester\_47:

(Start: 9 @34995 has 573 MA's), (Start: 26 @34872 has 3 MA's), (Start: 37 @34836 has 23 MA's), (Start: 41 @34809 has 29 MA's), (Start: 47 @34779 has 1 MA's), (Start: 52 @34749 has 1 MA's), (Start: 53 @34746 has 4 MA's), (54, 34740), (60, 34689), (67, 34644), (69, 34623), (80, 34557), (108, 34392), (111, 34377),

Gene: JetBlade\_55 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for JetBlade\_55:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 25 @38022 has 1 MA's), (Start: 33 @37986 has 2 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 45 @37932 has 1 MA's), (60, 37827), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (95, 37584), (101, 37557), (103, 37548), (119, 37482),

Gene: Jevington\_42 Start: 29464, Stop: 30126, Start Num: 6

Candidate Starts for Jevington\_42:

(Start: 6 @29464 has 32 MA's), (15, 29512), (17, 29527), (19, 29548), (28, 29605), (Start: 43 @29665 has 1 MA's), (Start: 53 @29710 has 4 MA's), (63, 29794), (82, 29914), (84, 29938), (87, 29959),

Gene: JewelBug\_61 Start: 37924, Stop: 37292, Start Num: 9

Candidate Starts for JewelBug\_61:

(Start: 9 @37924 has 573 MA's), (Start: 21 @37831 has 22 MA's), (Start: 37 @37777 has 23 MA's), (Start: 47 @37720 has 1 MA's), (60, 37642), (69, 37576), (82, 37495), (87, 37450), (91, 37417), (95, 37399), (103, 37363), (110, 37333), (111, 37330),

Gene: Jiawan\_57 Start: 38939, Stop: 38310, Start Num: 9

Candidate Starts for Jiawan\_57:

(Start: 9 @38939 has 573 MA's), (Start: 21 @38846 has 22 MA's), (Start: 26 @38822 has 3 MA's), (Start: 37 @38798 has 23 MA's), (Start: 41 @38771 has 29 MA's), (Start: 45 @38756 has 1 MA's), (60, 38660), (61, 38654), (67, 38615), (69, 38594), (80, 38528), (87, 38468), (91, 38435), (103, 38381), (110, 38351),

Gene: Jobu08\_60 Start: 38730, Stop: 38071, Start Num: 9

Candidate Starts for Jobu08\_60:

(Start: 9 @38730 has 573 MA's), (Start: 21 @38637 has 22 MA's), (Start: 33 @38583 has 2 MA's), (Start: 37 @38571 has 23 MA's), (Start: 41 @38544 has 29 MA's), (60, 38424), (76, 38316), (79, 38298), (80, 38292), (95, 38181), (103, 38145), (108, 38127), (110, 38115),

Gene: JoongJeon\_54 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for JoongJeon\_54:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Jordennis\_59 Start: 37405, Stop: 36773, Start Num: 9

Candidate Starts for Jordennis\_59:

(Start: 9 @37405 has 573 MA's), (Start: 21 @37312 has 22 MA's), (Start: 37 @37258 has 23 MA's), (Start: 47 @37201 has 1 MA's), (60, 37123), (69, 37057), (82, 36976), (87, 36931), (91, 36898), (95, 36880), (103, 36844), (110, 36814), (111, 36811),

Gene: Jorgensen\_55 Start: 39080, Stop: 38559, Start Num: 29

Candidate Starts for Jorgensen\_55:

(Start: 12 @39203 has 28 MA's), (Start: 29 @39080 has 115 MA's), (Start: 41 @39029 has 29 MA's), (Start: 44 @39017 has 4 MA's), (63, 38888), (68, 38867), (69, 38849), (79, 38789), (87, 38723), (88, 38720), (91, 38690), (95, 38672), (103, 38636), (110, 38606),

Gene: Joselito\_60 Start: 38660, Stop: 38013, Start Num: 9

Candidate Starts for Joselito\_60:

(Start: 9 @38660 has 573 MA's), (Start: 21 @38567 has 22 MA's), (Start: 37 @38513 has 23 MA's), (Start: 41 @38486 has 29 MA's), (Start: 47 @38456 has 1 MA's), (61, 38360), (69, 38300), (80, 38234), (82, 38219), (87, 38174), (90, 38165), (91, 38141), (103, 38087), (111, 38054),

Gene: JoshKayV\_61 Start: 39537, Stop: 38905, Start Num: 9

Candidate Starts for JoshKayV\_61:

(Start: 9 @39537 has 573 MA's), (Start: 21 @39444 has 22 MA's), (30, 39408), (Start: 37 @39390 has 23 MA's), (Start: 47 @39333 has 1 MA's), (61, 39249), (69, 39189), (79, 39129), (87, 39063), (91, 39030), (103, 38976),

Gene: Journey13\_53 Start: 37443, Stop: 36811, Start Num: 9

Candidate Starts for Journey13\_53:

(Start: 9 @37443 has 573 MA's), (Start: 21 @37350 has 22 MA's), (Start: 37 @37296 has 23 MA's), (Start: 41 @37269 has 29 MA's), (Start: 47 @37239 has 1 MA's), (60, 37161), (69, 37095), (72, 37074), (79, 37035), (82, 37014), (87, 36969), (91, 36936), (103, 36882),

Gene: Jovo\_53 Start: 38653, Stop: 37994, Start Num: 9

Candidate Starts for Jovo\_53:

(Start: 9 @38653 has 573 MA's), (Start: 21 @38560 has 22 MA's), (Start: 25 @38542 has 1 MA's), (Start: 33 @38500 has 2 MA's), (Start: 37 @38488 has 23 MA's), (Start: 41 @38461 has 29 MA's), (Start: 44 @38449 has 4 MA's), (69, 38287), (80, 38221), (83, 38191), (87, 38161), (89, 38155), (91,

38128), (95, 38110), (101, 38083), (103, 38074), (108, 38056), (110, 38044), (111, 38041),

Gene: Jsquared\_58 Start: 38243, Stop: 37611, Start Num: 9

Candidate Starts for Jsquared\_58:

(Start: 9 @38243 has 573 MA's), (Start: 21 @38150 has 22 MA's), (Start: 37 @38096 has 23 MA's), (Start: 41 @38069 has 29 MA's), (Start: 47 @38039 has 1 MA's), (60, 37961), (69, 37895), (79, 37835), (82, 37814), (87, 37769), (91, 37736), (95, 37718), (103, 37682),

Gene: JuliaChild\_56 Start: 38881, Stop: 38408, Start Num: 41

Candidate Starts for JuliaChild\_56:

(Start: 12 @39055 has 28 MA's), (Start: 29 @38932 has 115 MA's), (Start: 41 @38881 has 29 MA's), (Start: 44 @38869 has 4 MA's), (63, 38740), (68, 38719), (69, 38701), (87, 38575), (91, 38542), (95, 38524), (103, 38488), (110, 38455), (111, 38452),

Gene: KADY\_62 Start: 38926, Stop: 38267, Start Num: 9

Candidate Starts for KADY\_62:

(Start: 9 @38926 has 573 MA's), (Start: 21 @38833 has 22 MA's), (Start: 33 @38779 has 2 MA's), (Start: 37 @38767 has 23 MA's), (Start: 41 @38740 has 29 MA's), (60, 38620), (76, 38512), (79, 38494), (80, 38488), (95, 38377), (103, 38341), (108, 38323), (110, 38311),

Gene: KBG\_55 Start: 41113, Stop: 40469, Start Num: 12

Candidate Starts for KBG\_55:

(Start: 12 @41113 has 28 MA's), (Start: 29 @40990 has 115 MA's), (Start: 41 @40939 has 29 MA's), (Start: 44 @40927 has 4 MA's), (63, 40798), (68, 40777), (69, 40759), (87, 40633), (88, 40630), (91, 40600), (95, 40582), (103, 40546), (110, 40516),

Gene: KFPoly\_54 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for KFPoly\_54:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 25 @38022 has 1 MA's), (Start: 33 @37986 has 2 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 45 @37932 has 1 MA's), (60, 37827), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (95, 37584), (101, 37557), (103, 37548), (119, 37482),

Gene: KSSJEB\_54 Start: 38647, Stop: 38189, Start Num: 44

Candidate Starts for KSSJEB\_54:

(Start: 12 @38833 has 28 MA's), (Start: 29 @38710 has 115 MA's), (Start: 41 @38659 has 29 MA's), (Start: 44 @38647 has 4 MA's), (63, 38518), (68, 38497), (69, 38479), (87, 38353), (91, 38320), (95, 38302), (103, 38266), (110, 38236),

Gene: Kachowdy\_58 Start: 38492, Stop: 37830, Start Num: 9

Candidate Starts for Kachowdy\_58:

(Start: 9 @38492 has 573 MA's), (Start: 21 @38399 has 22 MA's), (Start: 33 @38345 has 2 MA's), (Start: 37 @38333 has 23 MA's), (Start: 41 @38306 has 29 MA's), (Start: 45 @38291 has 1 MA's), (Start: 53 @38243 has 4 MA's), (60, 38186), (68, 38138), (76, 38078), (80, 38054), (82, 38039), (83, 38024), (87, 37994), (95, 37943), (103, 37907), (108, 37889), (119, 37841),

Gene: Kaine\_40 Start: 29416, Stop: 30081, Start Num: 7

Candidate Starts for Kaine\_40:

(Start: 7 @29416 has 37 MA's), (Start: 9 @29431 has 573 MA's), (Start: 53 @29659 has 4 MA's), (60, 29716), (61, 29722), (63, 29743), (64, 29752), (73, 29812), (74, 29815), (76, 29824), (84, 29887), (87, 29908), (102, 29989), (107, 30010),

Gene: Kalb97\_63 Start: 38783, Stop: 38124, Start Num: 9

Candidate Starts for Kalb97\_63:

(Start: 9 @38783 has 573 MA's), (Start: 21 @38690 has 22 MA's), (Start: 33 @38636 has 2 MA's), (Start: 37 @38624 has 23 MA's), (Start: 41 @38597 has 29 MA's), (60, 38477), (76, 38369), (79, 38351), (80, 38345), (91, 38252), (95, 38234), (103, 38198), (108, 38180), (110, 38168),

Gene: Kalnoky\_63 Start: 38781, Stop: 38122, Start Num: 9

Candidate Starts for Kalnoky\_63:

(Start: 9 @38781 has 573 MA's), (Start: 21 @38688 has 22 MA's), (Start: 33 @38634 has 2 MA's), (Start: 37 @38622 has 23 MA's), (Start: 41 @38595 has 29 MA's), (60, 38475), (76, 38367), (79, 38349), (80, 38343), (91, 38250), (95, 38232), (103, 38196), (108, 38178), (110, 38166),

Gene: Kalpine\_57 Start: 39098, Stop: 38466, Start Num: 9

Candidate Starts for Kalpine\_57:

(Start: 9 @39098 has 573 MA's), (Start: 21 @39005 has 22 MA's), (Start: 37 @38951 has 23 MA's), (Start: 41 @38924 has 29 MA's), (Start: 45 @38909 has 1 MA's), (Start: 47 @38894 has 1 MA's), (61, 38810), (69, 38750), (87, 38624), (91, 38591), (95, 38573), (103, 38537),

Gene: Kamy\_54 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Kamy\_54:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (101, 37565), (103, 37556), (119, 37490),

Gene: Kanely\_57 Start: 39730, Stop: 39209, Start Num: 29

Candidate Starts for Kanely\_57:

(Start: 29 @39730 has 115 MA's), (Start: 37 @39706 has 23 MA's), (Start: 41 @39679 has 29 MA's), (Start: 44 @39667 has 4 MA's), (Start: 52 @39619 has 1 MA's), (67, 39520), (73, 39469), (87, 39373), (91, 39340), (95, 39322), (103, 39286), (110, 39256),

Gene: Katalie\_39 Start: 28378, Stop: 29028, Start Num: 9

Candidate Starts for Katalie\_39:

(Start: 7 @28363 has 37 MA's), (Start: 9 @28378 has 573 MA's), (11, 28381), (Start: 53 @28606 has 4 MA's), (60, 28663), (61, 28669), (63, 28690), (64, 28699), (73, 28759), (76, 28771), (78, 28780), (79, 28789), (84, 28834), (87, 28855), (102, 28936), (107, 28957), (117, 29005),

Gene: Katalie136\_54 Start: 38092, Stop: 37433, Start Num: 9

Candidate Starts for Katalie136\_54:

(Start: 9 @38092 has 573 MA's), (Start: 21 @37999 has 22 MA's), (Start: 25 @37981 has 1 MA's), (Start: 33 @37945 has 2 MA's), (Start: 37 @37933 has 23 MA's), (Start: 41 @37906 has 29 MA's), (Start: 45 @37891 has 1 MA's), (60, 37786), (79, 37660), (82, 37639), (83, 37624), (95, 37543), (103, 37507), (119, 37441),

Gene: KatherineG\_66 Start: 38702, Stop: 38070, Start Num: 9

Candidate Starts for KatherineG\_66:

(Start: 9 @38702 has 573 MA's), (Start: 13 @38684 has 45 MA's), (Start: 21 @38609 has 22 MA's), (Start: 41 @38531 has 29 MA's), (Start: 45 @38516 has 1 MA's), (Start: 47 @38501 has 1 MA's), (66, 38381), (67, 38378), (78, 38306), (82, 38276), (91, 38198), (103, 38144),

Gene: Kazan\_61 Start: 37724, Stop: 37092, Start Num: 9

Candidate Starts for Kazan\_61:

(Start: 9 @37724 has 573 MA's), (Start: 21 @37631 has 22 MA's), (Start: 37 @37577 has 23 MA's), (Start: 47 @37520 has 1 MA's), (60, 37442), (69, 37376), (82, 37295), (87, 37250), (91, 37217), (95,

37199), (103, 37163), (110, 37133), (111, 37130),

Gene: Keiki\_30 Start: 21272, Stop: 20601, Start Num: 13

Candidate Starts for Keiki\_30:

(Start: 13 @21272 has 45 MA's), (Start: 47 @21059 has 1 MA's), (Start: 53 @21020 has 4 MA's), (64, 20927), (67, 20918), (69, 20897), (73, 20867), (93, 20732), (101, 20690), (113, 20633), (118, 20612),

Gene: Kenmech\_58 Start: 40856, Stop: 40332, Start Num: 29

Candidate Starts for Kenmech\_58:

(Start: 29 @40856 has 115 MA's), (Start: 37 @40832 has 23 MA's), (Start: 41 @40805 has 29 MA's), (Start: 44 @40793 has 4 MA's), (Start: 52 @40745 has 1 MA's), (73, 40595), (87, 40499), (88, 40496), (91, 40466), (95, 40448), (103, 40412), (110, 40379), (111, 40376),

Gene: Kerberos\_61 Start: 38900, Stop: 38268, Start Num: 9

Candidate Starts for Kerberos\_61:

(Start: 9 @38900 has 573 MA's), (Start: 21 @38807 has 22 MA's), (Start: 37 @38753 has 23 MA's), (Start: 41 @38726 has 29 MA's), (Start: 47 @38696 has 1 MA's), (60, 38618), (61, 38612), (69, 38552), (82, 38471), (87, 38426), (91, 38393), (95, 38375), (103, 38339),

Gene: Keziacharles14\_59 Start: 39995, Stop: 39366, Start Num: 9

Candidate Starts for Keziacharles14\_59:

(Start: 9 @39995 has 573 MA's), (Start: 21 @39902 has 22 MA's), (Start: 37 @39854 has 23 MA's), (Start: 41 @39827 has 29 MA's), (60, 39716), (67, 39671), (69, 39650), (76, 39608), (79, 39590), (87, 39524), (91, 39491), (103, 39437), (112, 39401),

Gene: Killigrew\_55 Start: 39910, Stop: 39389, Start Num: 29

Candidate Starts for Killigrew\_55:

(Start: 12 @40033 has 28 MA's), (Start: 29 @39910 has 115 MA's), (Start: 41 @39859 has 29 MA's), (Start: 44 @39847 has 4 MA's), (63, 39718), (68, 39697), (69, 39679), (87, 39553), (91, 39520), (95, 39502), (103, 39466), (110, 39436),

Gene: Kimona\_55 Start: 36769, Stop: 36110, Start Num: 9

Candidate Starts for Kimona\_55:

(Start: 9 @36769 has 573 MA's), (Start: 21 @36676 has 22 MA's), (Start: 24 @36661 has 2 MA's), (Start: 33 @36622 has 2 MA's), (Start: 37 @36610 has 23 MA's), (Start: 41 @36583 has 29 MA's), (Start: 52 @36523 has 1 MA's), (60, 36463), (80, 36331), (82, 36316), (83, 36301), (87, 36271), (103, 36184), (108, 36166), (110, 36154), (119, 36118),

Gene: KingCyrus\_61 Start: 40654, Stop: 40022, Start Num: 9

Candidate Starts for KingCyrus\_61:

(Start: 9 @40654 has 573 MA's), (Start: 21 @40561 has 22 MA's), (Start: 37 @40507 has 23 MA's), (Start: 47 @40450 has 1 MA's), (61, 40366), (69, 40306), (79, 40246), (87, 40180), (91, 40147), (103, 40093),

Gene: Kingmustik0402\_55 Start: 38128, Stop: 37469, Start Num: 9

Candidate Starts for Kingmustik0402\_55:

(Start: 9 @38128 has 573 MA's), (Start: 21 @38035 has 22 MA's), (Start: 25 @38017 has 1 MA's), (Start: 33 @37981 has 2 MA's), (Start: 37 @37969 has 23 MA's), (Start: 41 @37942 has 29 MA's), (Start: 45 @37927 has 1 MA's), (60, 37822), (79, 37696), (80, 37690), (82, 37675), (83, 37660), (95, 37579), (101, 37552), (103, 37543), (119, 37477),

Gene: Kinmap\_57 Start: 37075, Stop: 36674, Start Num: 52

Candidate Starts for Kinmap\_57:

(Start: 9 @37303 has 573 MA's), (Start: 21 @37210 has 22 MA's), (Start: 37 @37162 has 23 MA's), (Start: 41 @37135 has 29 MA's), (Start: 47 @37105 has 1 MA's), (Start: 52 @37075 has 1 MA's), (60, 37027), (69, 36961), (79, 36901), (80, 36895), (82, 36880), (91, 36802), (95, 36784), (103, 36748), (110, 36718), (111, 36715),

Gene: Kipper29\_60 Start: 37737, Stop: 37105, Start Num: 9

Candidate Starts for Kipper29\_60:

(Start: 9 @37737 has 573 MA's), (Start: 21 @37644 has 22 MA's), (Start: 37 @37590 has 23 MA's), (Start: 47 @37533 has 1 MA's), (60, 37455), (69, 37389), (82, 37308), (87, 37263), (91, 37230), (95, 37212), (103, 37176), (110, 37146), (111, 37143),

Gene: KittenMittens\_53 Start: 37274, Stop: 36615, Start Num: 9

Candidate Starts for KittenMittens\_53:

(Start: 9 @37274 has 573 MA's), (Start: 21 @37181 has 22 MA's), (Start: 37 @37115 has 23 MA's), (Start: 41 @37088 has 29 MA's), (Start: 53 @37025 has 4 MA's), (60, 36968), (68, 36920), (82, 36821), (83, 36806), (101, 36698), (103, 36689), (110, 36659), (119, 36623),

Gene: Koan\_53 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Koan\_53:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Koduck\_60 Start: 38151, Stop: 37723, Start Num: 47

Candidate Starts for Koduck\_60:

(Start: 9 @38358 has 573 MA's), (Start: 21 @38265 has 22 MA's), (Start: 37 @38208 has 23 MA's), (Start: 41 @38181 has 29 MA's), (Start: 47 @38151 has 1 MA's), (61, 38067), (69, 38007), (79, 37947), (87, 37881), (91, 37848), (95, 37830), (103, 37794),

Gene: Koko\_62 Start: 38263, Stop: 37631, Start Num: 9

Candidate Starts for Koko\_62:

(Start: 9 @38263 has 573 MA's), (Start: 21 @38170 has 22 MA's), (Start: 37 @38116 has 23 MA's), (Start: 47 @38059 has 1 MA's), (61, 37975), (69, 37915), (87, 37789), (91, 37756), (95, 37738), (103, 37702), (108, 37684), (110, 37672), (111, 37669),

Gene: Koreni\_54 Start: 37820, Stop: 37161, Start Num: 9

Candidate Starts for Koreni\_54:

(Start: 9 @37820 has 573 MA's), (Start: 21 @37727 has 22 MA's), (Start: 25 @37709 has 1 MA's), (Start: 33 @37673 has 2 MA's), (Start: 37 @37661 has 23 MA's), (Start: 41 @37634 has 29 MA's), (Start: 45 @37619 has 1 MA's), (60, 37514), (79, 37388), (80, 37382), (82, 37367), (83, 37352), (95, 37271), (101, 37244), (103, 37235), (119, 37169),

Gene: Kratak\_55 Start: 38261, Stop: 37602, Start Num: 9

Candidate Starts for Kratak\_55:

(Start: 9 @38261 has 573 MA's), (Start: 21 @38168 has 22 MA's), (Start: 25 @38150 has 1 MA's), (Start: 33 @38114 has 2 MA's), (Start: 37 @38102 has 23 MA's), (Start: 41 @38075 has 29 MA's), (Start: 45 @38060 has 1 MA's), (60, 37955), (79, 37829), (80, 37823), (82, 37808), (83, 37793), (95, 37712), (103, 37676), (119, 37610),

Gene: Kremtemulon\_55 Start: 38087, Stop: 37428, Start Num: 9

Candidate Starts for Kremtemulon\_55:



(Start: 9 @38087 has 573 MA's), (Start: 21 @37994 has 22 MA's), (Start: 25 @37976 has 1 MA's), (Start: 33 @37940 has 2 MA's), (Start: 37 @37928 has 23 MA's), (Start: 41 @37901 has 29 MA's), (Start: 45 @37886 has 1 MA's), (60, 37781), (79, 37655), (80, 37649), (82, 37634), (83, 37619), (95, 37538), (101, 37511), (103, 37502), (119, 37436),

Gene: Krishelle\_48 Start: 35640, Stop: 34981, Start Num: 9

Candidate Starts for Krishelle\_48:

(Start: 9 @35640 has 573 MA's), (Start: 26 @35517 has 3 MA's), (Start: 37 @35481 has 23 MA's), (Start: 41 @35454 has 29 MA's), (Start: 47 @35424 has 1 MA's), (Start: 52 @35394 has 1 MA's), (Start: 53 @35391 has 4 MA's), (54, 35385), (60, 35334), (67, 35289), (69, 35268), (79, 35208), (80, 35202), (108, 35037), (111, 35022),

Gene: Kristoff\_55 Start: 38419, Stop: 37760, Start Num: 9

Candidate Starts for Kristoff\_55:

(Start: 9 @38419 has 573 MA's), (Start: 21 @38326 has 22 MA's), (Start: 37 @38260 has 23 MA's), (Start: 41 @38233 has 29 MA's), (Start: 53 @38170 has 4 MA's), (60, 38113), (68, 38065), (76, 38005), (79, 37987), (82, 37966), (83, 37951), (101, 37843), (103, 37834), (108, 37816), (110, 37804), (119, 37768),

Gene: Kubed\_30 Start: 21328, Stop: 20657, Start Num: 13

Candidate Starts for Kubed\_30:

(Start: 13 @21328 has 45 MA's), (15, 21316), (17, 21301), (Start: 47 @21115 has 1 MA's), (Start: 53 @21076 has 4 MA's), (60, 21019), (64, 20983), (67, 20974), (73, 20923), (93, 20788), (101, 20746), (113, 20689), (118, 20668),

Gene: Kugel\_55 Start: 40035, Stop: 39454, Start Num: 20

Candidate Starts for Kugel\_55:

(Start: 20 @40035 has 38 MA's), (Start: 29 @39978 has 115 MA's), (Start: 37 @39954 has 23 MA's), (Start: 41 @39927 has 29 MA's), (Start: 44 @39915 has 4 MA's), (Start: 52 @39867 has 1 MA's), (67, 39768), (73, 39717), (87, 39621), (88, 39618), (91, 39588), (95, 39570), (103, 39534), (110, 39501), (111, 39498),

Gene: Kumquat\_57 Start: 30551, Stop: 29919, Start Num: 9

Candidate Starts for Kumquat\_57:

(Start: 9 @30551 has 573 MA's), (Start: 13 @30533 has 45 MA's), (15, 30521), (Start: 47 @30353 has 1 MA's), (50, 30329), (59, 30290), (67, 30227), (79, 30146), (87, 30080), (99, 30017),

Gene: KyMonks1A\_57 Start: 39348, Stop: 38770, Start Num: 20

Candidate Starts for KyMonks1A\_57:

(Start: 20 @39348 has 38 MA's), (Start: 29 @39291 has 115 MA's), (Start: 37 @39267 has 23 MA's), (Start: 41 @39240 has 29 MA's), (Start: 44 @39228 has 4 MA's), (Start: 52 @39180 has 1 MA's), (67, 39081), (73, 39030), (87, 38934), (91, 38901), (95, 38883), (103, 38847), (110, 38817),

Gene: Kyee\_55 Start: 38137, Stop: 37478, Start Num: 9

Candidate Starts for Kyee\_55:

(Start: 9 @38137 has 573 MA's), (Start: 21 @38044 has 22 MA's), (Start: 25 @38026 has 1 MA's), (Start: 33 @37990 has 2 MA's), (Start: 37 @37978 has 23 MA's), (Start: 41 @37951 has 29 MA's), (Start: 45 @37936 has 1 MA's), (60, 37831), (79, 37705), (80, 37699), (82, 37684), (83, 37669), (95, 37588), (101, 37561), (103, 37552), (119, 37486),

Gene: Kykar\_54 Start: 38794, Stop: 38216, Start Num: 20

Candidate Starts for Kykar\_54:

(Start: 20 @38794 has 38 MA's), (Start: 29 @38737 has 115 MA's), (Start: 37 @38713 has 23 MA's), (Start: 41 @38686 has 29 MA's), (Start: 44 @38674 has 4 MA's), (Start: 52 @38626 has 1 MA's), (73, 38476), (87, 38380), (88, 38377), (91, 38347), (95, 38329), (103, 38293), (110, 38263),

Gene: L5\_57 Start: 38268, Stop: 37810, Start Num: 41

Candidate Starts for L5\_57:

(Start: 9 @38445 has 573 MA's), (Start: 21 @38352 has 22 MA's), (Start: 37 @38295 has 23 MA's), (Start: 41 @38268 has 29 MA's), (Start: 47 @38238 has 1 MA's), (61, 38154), (69, 38094), (79, 38034), (87, 37968), (91, 37935), (95, 37917), (103, 37881),

Gene: LBerry\_63 Start: 38902, Stop: 38243, Start Num: 9

Candidate Starts for LBerry\_63:

(Start: 9 @38902 has 573 MA's), (Start: 21 @38809 has 22 MA's), (Start: 33 @38755 has 2 MA's), (Start: 37 @38743 has 23 MA's), (Start: 41 @38716 has 29 MA's), (60, 38596), (76, 38488), (79, 38470), (80, 38464), (95, 38353), (103, 38317), (108, 38299), (110, 38287),

Gene: LHTSCC\_57 Start: 38542, Stop: 37883, Start Num: 9

Candidate Starts for LHTSCC\_57:

(Start: 9 @38542 has 573 MA's), (Start: 21 @38449 has 22 MA's), (Start: 33 @38395 has 2 MA's), (Start: 37 @38383 has 23 MA's), (Start: 41 @38356 has 29 MA's), (Start: 45 @38341 has 1 MA's), (60, 38236), (79, 38110), (82, 38089), (83, 38074), (95, 37993), (101, 37966), (103, 37957), (119, 37891),

Gene: LadyBird\_64 Start: 39739, Stop: 39200, Start Num: 21

Candidate Starts for LadyBird\_64:

(Start: 21 @39739 has 22 MA's), (Start: 37 @39685 has 23 MA's), (Start: 47 @39628 has 1 MA's), (61, 39544), (69, 39484), (80, 39418), (87, 39358), (91, 39325), (95, 39307), (103, 39271),

Gene: Lambert1\_57 Start: 38514, Stop: 37852, Start Num: 9

Candidate Starts for Lambert1\_57:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: Lamina13\_55 Start: 38765, Stop: 38244, Start Num: 29

Candidate Starts for Lamina13\_55:

(Start: 29 @38765 has 115 MA's), (Start: 37 @38741 has 23 MA's), (Start: 41 @38714 has 29 MA's), (Start: 44 @38702 has 4 MA's), (Start: 52 @38654 has 1 MA's), (73, 38504), (87, 38408), (91, 38375), (95, 38357), (103, 38321), (110, 38291),

Gene: Landor\_59 Start: 39884, Stop: 39345, Start Num: 21

Candidate Starts for Landor\_59:

(Start: 21 @39884 has 22 MA's), (23, 39872), (Start: 37 @39830 has 23 MA's), (Start: 41 @39803 has 29 MA's), (Start: 47 @39773 has 1 MA's), (60, 39695), (61, 39689), (69, 39629), (82, 39548), (87, 39503), (91, 39470), (103, 39416), (110, 39386),

Gene: Lannister\_41 Start: 29083, Stop: 29505, Start Num: 53

Candidate Starts for Lannister\_41:

(Start: 7 @28840 has 37 MA's), (Start: 9 @28855 has 573 MA's), (11, 28858), (Start: 53 @29083 has 4 MA's), (60, 29140), (61, 29146), (63, 29167), (64, 29176), (71, 29212), (73, 29236), (76, 29248), (78, 29257), (79, 29266), (84, 29311), (87, 29332), (102, 29413), (107, 29434), (117, 29482),

Gene: LappelDuVide\_55 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for LappelDuVide\_55:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: Larenn\_58 Start: 39063, Stop: 38431, Start Num: 9

Candidate Starts for Larenn\_58:

(Start: 9 @39063 has 573 MA's), (Start: 21 @38970 has 22 MA's), (Start: 37 @38916 has 23 MA's), (Start: 47 @38859 has 1 MA's), (60, 38781), (61, 38775), (69, 38715), (79, 38655), (82, 38634), (87, 38589), (91, 38556), (103, 38502),

Gene: LarryKay\_62 Start: 38928, Stop: 38269, Start Num: 9

Candidate Starts for LarryKay\_62:

(Start: 9 @38928 has 573 MA's), (Start: 21 @38835 has 22 MA's), (Start: 33 @38781 has 2 MA's), (Start: 37 @38769 has 23 MA's), (Start: 41 @38742 has 29 MA's), (60, 38622), (76, 38514), (79, 38496), (80, 38490), (95, 38379), (103, 38343), (108, 38325), (110, 38313),

Gene: LastResort\_64 Start: 38281, Stop: 37649, Start Num: 9

Candidate Starts for LastResort\_64:

(Start: 9 @38281 has 573 MA's), (Start: 13 @38263 has 45 MA's), (Start: 21 @38188 has 22 MA's), (Start: 41 @38110 has 29 MA's), (Start: 45 @38095 has 1 MA's), (Start: 47 @38080 has 1 MA's), (66, 37960), (67, 37957), (78, 37885), (82, 37855), (91, 37777), (95, 37759), (103, 37723),

Gene: Lauchelly\_30 Start: 21377, Stop: 20706, Start Num: 13

Candidate Starts for Lauchelly\_30:

(Start: 13 @21377 has 45 MA's), (Start: 47 @21164 has 1 MA's), (Start: 53 @21125 has 4 MA's), (64, 21032), (67, 21023), (69, 21002), (73, 20972), (93, 20837), (101, 20795), (113, 20738), (118, 20717),

Gene: Legacy\_39 Start: 27950, Stop: 28456, Start Num: 37

Candidate Starts for Legacy\_39:

(Start: 7 @27791 has 37 MA's), (Start: 9 @27806 has 573 MA's), (11, 27809), (Start: 37 @27950 has 23 MA's), (Start: 53 @28034 has 4 MA's), (60, 28091), (61, 28097), (63, 28118), (64, 28127), (71, 28163), (73, 28187), (76, 28199), (78, 28208), (79, 28217), (84, 28262), (102, 28364), (107, 28385), (117, 28433),

Gene: Lemur\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Lemur\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: LeoAvram\_55 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for LeoAvram\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Leogania\_59 Start: 39757, Stop: 39218, Start Num: 21

Candidate Starts for Leogania\_59:

(Start: 21 @39757 has 22 MA's), (30, 39721), (Start: 37 @39703 has 23 MA's), (Start: 41 @39676 has 29 MA's), (Start: 47 @39646 has 1 MA's), (60, 39568), (61, 39562), (69, 39502), (79, 39442), (82, 39421), (87, 39376), (91, 39343), (103, 39289),

Gene: Lesedi\_51 Start: 37772, Stop: 37194, Start Num: 20

Candidate Starts for Lesedi\_51:

(Start: 20 @37772 has 38 MA's), (Start: 29 @37715 has 115 MA's), (Start: 37 @37691 has 23 MA's), (Start: 41 @37664 has 29 MA's), (Start: 44 @37652 has 4 MA's), (Start: 52 @37604 has 1 MA's), (73, 37454), (87, 37358), (91, 37325), (95, 37307), (103, 37271), (110, 37241),

Gene: Lev2\_53 Start: 38285, Stop: 37626, Start Num: 9

Candidate Starts for Lev2\_53:

(Start: 9 @38285 has 573 MA's), (Start: 21 @38192 has 22 MA's), (Start: 25 @38174 has 1 MA's), (Start: 33 @38132 has 2 MA's), (Start: 37 @38120 has 23 MA's), (Start: 41 @38093 has 29 MA's), (Start: 44 @38081 has 4 MA's), (69, 37919), (80, 37853), (83, 37823), (87, 37793), (89, 37787), (91, 37760), (95, 37742), (101, 37715), (103, 37706), (108, 37688), (110, 37676), (111, 37673),

Gene: Levia\_51 Start: 38553, Stop: 38032, Start Num: 29

Candidate Starts for Levia\_51:

(Start: 29 @38553 has 115 MA's), (Start: 37 @38529 has 23 MA's), (Start: 41 @38502 has 29 MA's), (Start: 44 @38490 has 4 MA's), (Start: 52 @38442 has 1 MA's), (73, 38292), (87, 38196), (91, 38163), (95, 38145), (103, 38109), (110, 38079),

Gene: Leviathan\_61 Start: 39530, Stop: 38898, Start Num: 9

Candidate Starts for Leviathan\_61:

(Start: 9 @39530 has 573 MA's), (Start: 21 @39437 has 22 MA's), (Start: 37 @39383 has 23 MA's), (Start: 47 @39326 has 1 MA's), (61, 39242), (69, 39182), (79, 39122), (87, 39056), (91, 39023), (103, 38969),

Gene: Leviosa\_30 Start: 21373, Stop: 20702, Start Num: 13

Candidate Starts for Leviosa\_30:

(Start: 13 @21373 has 45 MA's), (Start: 47 @21160 has 1 MA's), (Start: 53 @21121 has 4 MA's), (60, 21064), (64, 21028), (67, 21019), (69, 20998), (73, 20968), (93, 20833), (101, 20791), (113, 20734), (118, 20713),

Gene: Leviticus\_39 Start: 27979, Stop: 28485, Start Num: 37

Candidate Starts for Leviticus\_39:

(Start: 7 @27820 has 37 MA's), (Start: 9 @27835 has 573 MA's), (11, 27838), (Start: 37 @27979 has 23 MA's), (Start: 53 @28063 has 4 MA's), (60, 28120), (61, 28126), (63, 28147), (64, 28156), (71, 28192), (73, 28216), (76, 28228), (78, 28237), (79, 28246), (84, 28291), (102, 28393), (107, 28414), (117, 28462),

Gene: Licorice\_57 Start: 41079, Stop: 40558, Start Num: 29

Candidate Starts for Licorice\_57:

(Start: 29 @41079 has 115 MA's), (Start: 37 @41055 has 23 MA's), (Start: 41 @41028 has 29 MA's), (Start: 44 @41016 has 4 MA's), (Start: 52 @40968 has 1 MA's), (67, 40869), (73, 40818), (87, 40722), (91, 40689), (95, 40671), (103, 40635), (110, 40605),

Gene: Lika\_39 Start: 28635, Stop: 29300, Start Num: 7

Candidate Starts for Lika\_39:

(Start: 7 @28635 has 37 MA's), (Start: 9 @28650 has 573 MA's), (11, 28653), (Start: 37 @28794 has 23 MA's), (Start: 53 @28878 has 4 MA's), (60, 28935), (61, 28941), (63, 28962), (64, 28971), (71, 29007), (73, 29031), (76, 29043), (78, 29052), (79, 29061), (84, 29106), (87, 29127), (102, 29208),

(107, 29229), (117, 29277),

Gene: LilBandit\_30 Start: 21167, Stop: 20496, Start Num: 13

Candidate Starts for LilBandit\_30:

(Start: 13 @21167 has 45 MA's), (Start: 47 @20954 has 1 MA's), (Start: 53 @20915 has 4 MA's), (60, 20858), (64, 20822), (67, 20813), (69, 20792), (73, 20762), (93, 20627), (101, 20585), (113, 20528), (118, 20507),

Gene: LilBib\_55 Start: 40493, Stop: 39969, Start Num: 29

Candidate Starts for LilBib\_55:

(Start: 29 @40493 has 115 MA's), (Start: 37 @40469 has 23 MA's), (Start: 41 @40442 has 29 MA's), (Start: 44 @40430 has 4 MA's), (Start: 52 @40382 has 1 MA's), (73, 40232), (87, 40136), (88, 40133), (91, 40103), (95, 40085), (103, 40049), (110, 40016), (111, 40013),

Gene: LilTurb\_60 Start: 39354, Stop: 38722, Start Num: 9

Candidate Starts for LilTurb\_60:

(Start: 9 @39354 has 573 MA's), (Start: 21 @39261 has 22 MA's), (Start: 37 @39207 has 23 MA's), (Start: 47 @39150 has 1 MA's), (61, 39066), (69, 39006), (79, 38946), (87, 38880), (91, 38847), (103, 38793),

Gene: Lilbunny\_60 Start: 37833, Stop: 37201, Start Num: 9

Candidate Starts for Lilbunny\_60:

(Start: 9 @37833 has 573 MA's), (Start: 21 @37740 has 22 MA's), (Start: 37 @37686 has 23 MA's), (Start: 47 @37629 has 1 MA's), (61, 37545), (69, 37485), (87, 37359), (91, 37326), (95, 37308), (103, 37272), (108, 37254), (110, 37242), (111, 37239),

Gene: Lilit\_62 Start: 38891, Stop: 38232, Start Num: 9

Candidate Starts for Lilit\_62:

(Start: 9 @38891 has 573 MA's), (Start: 21 @38798 has 22 MA's), (Start: 33 @38744 has 2 MA's), (Start: 37 @38732 has 23 MA's), (Start: 41 @38705 has 29 MA's), (60, 38585), (76, 38477), (79, 38459), (80, 38453), (95, 38342), (103, 38306), (108, 38288), (110, 38276),

Gene: Lilleskat\_57 Start: 38739, Stop: 38227, Start Num: 26

Candidate Starts for Lilleskat\_57:

(Start: 9 @38856 has 573 MA's), (Start: 21 @38763 has 22 MA's), (Start: 26 @38739 has 3 MA's), (Start: 37 @38715 has 23 MA's), (Start: 41 @38688 has 29 MA's), (Start: 45 @38673 has 1 MA's), (60, 38577), (61, 38571), (67, 38532), (69, 38511), (87, 38385), (91, 38352), (103, 38298), (110, 38268),

Gene: Lillie\_48 Start: 35031, Stop: 34621, Start Num: 53

Candidate Starts for Lillie\_48:

(Start: 9 @35280 has 573 MA's), (Start: 26 @35157 has 3 MA's), (Start: 37 @35121 has 23 MA's), (Start: 41 @35094 has 29 MA's), (Start: 47 @35064 has 1 MA's), (Start: 52 @35034 has 1 MA's), (Start: 53 @35031 has 4 MA's), (54, 35025), (60, 34974), (67, 34929), (69, 34908), (79, 34848), (80, 34842), (108, 34677), (111, 34662),

Gene: LionsBait\_61 Start: 40416, Stop: 39877, Start Num: 21

Candidate Starts for LionsBait\_61:

(Start: 21 @40416 has 22 MA's), (Start: 37 @40362 has 23 MA's), (Start: 47 @40305 has 1 MA's), (61, 40221), (69, 40161), (79, 40101), (87, 40035), (91, 40002), (95, 39984), (103, 39948),

Gene: LittleB\_55 Start: 38140, Stop: 37481, Start Num: 9

Candidate Starts for LittleB\_55:

(Start: 9 @38140 has 573 MA's), (Start: 21 @38047 has 22 MA's), (Start: 25 @38029 has 1 MA's), (Start: 33 @37993 has 2 MA's), (Start: 37 @37981 has 23 MA's), (Start: 41 @37954 has 29 MA's), (Start: 45 @37939 has 1 MA's), (60, 37834), (79, 37708), (80, 37702), (82, 37687), (83, 37672), (95, 37591), (101, 37564), (103, 37555), (119, 37489),

Gene: LittleCherry\_53 Start: 38493, Stop: 37834, Start Num: 9

Candidate Starts for LittleCherry\_53:

(Start: 9 @38493 has 573 MA's), (Start: 21 @38400 has 22 MA's), (Start: 25 @38382 has 1 MA's), (Start: 33 @38340 has 2 MA's), (Start: 37 @38328 has 23 MA's), (Start: 41 @38301 has 29 MA's), (Start: 44 @38289 has 4 MA's), (Start: 53 @38238 has 4 MA's), (80, 38061), (81, 38052), (83, 38031), (86, 38016), (87, 38001), (89, 37995), (91, 37968), (95, 37950), (101, 37923), (103, 37914), (108, 37896), (110, 37884), (111, 37881),

Gene: LittleGuy\_55 Start: 38035, Stop: 37376, Start Num: 9

Candidate Starts for LittleGuy\_55:

(Start: 9 @38035 has 573 MA's), (Start: 21 @37942 has 22 MA's), (Start: 25 @37924 has 1 MA's), (Start: 33 @37888 has 2 MA's), (Start: 37 @37876 has 23 MA's), (Start: 41 @37849 has 29 MA's), (Start: 45 @37834 has 1 MA's), (60, 37729), (79, 37603), (80, 37597), (82, 37582), (83, 37567), (95, 37486), (101, 37459), (103, 37450), (119, 37384),

Gene: LochMonster\_56 Start: 38189, Stop: 37716, Start Num: 41

Candidate Starts for LochMonster\_56:

(Start: 9 @38375 has 573 MA's), (Start: 21 @38282 has 22 MA's), (Start: 25 @38264 has 1 MA's), (Start: 33 @38228 has 2 MA's), (Start: 37 @38216 has 23 MA's), (Start: 41 @38189 has 29 MA's), (Start: 45 @38174 has 1 MA's), (60, 38069), (79, 37943), (80, 37937), (82, 37922), (83, 37907), (95, 37826), (101, 37799), (103, 37790), (119, 37724),

Gene: Lockley\_53 Start: 38634, Stop: 38164, Start Num: 41

Candidate Starts for Lockley\_53:

(Start: 29 @38685 has 115 MA's), (Start: 37 @38661 has 23 MA's), (Start: 41 @38634 has 29 MA's), (Start: 44 @38622 has 4 MA's), (Start: 52 @38574 has 1 MA's), (73, 38424), (87, 38328), (91, 38295), (95, 38277), (103, 38241), (110, 38211),

Gene: Loka\_56 Start: 38432, Stop: 37800, Start Num: 9

Candidate Starts for Loka\_56:

(Start: 9 @38432 has 573 MA's), (Start: 21 @38339 has 22 MA's), (Start: 37 @38285 has 23 MA's), (Start: 41 @38258 has 29 MA's), (60, 38150), (61, 38144), (69, 38084), (82, 38003), (87, 37958), (91, 37925), (95, 37907), (103, 37871),

Gene: LoneWolf\_60 Start: 38884, Stop: 38258, Start Num: 9

Candidate Starts for LoneWolf\_60:

(Start: 9 @38884 has 573 MA's), (Start: 21 @38791 has 22 MA's), (22, 38788), (Start: 37 @38743 has 23 MA's), (Start: 41 @38716 has 29 MA's), (Start: 45 @38701 has 1 MA's), (60, 38608), (61, 38602), (69, 38542), (76, 38500), (79, 38482), (82, 38461), (87, 38416), (91, 38383), (103, 38329),

Gene: Loofah\_40 Start: 29235, Stop: 29897, Start Num: 6

Candidate Starts for Loofah\_40:

(Start: 6 @29235 has 32 MA's), (15, 29283), (22, 29346), (28, 29376), (Start: 43 @29436 has 1 MA's), (Start: 53 @29481 has 4 MA's), (63, 29565), (64, 29574), (82, 29685), (84, 29709), (87, 29730), (107, 29829), (109, 29844), (115, 29865),

Gene: Looper\_65 Start: 38193, Stop: 37561, Start Num: 9

Candidate Starts for Looper\_65:

(Start: 9 @38193 has 573 MA's), (Start: 13 @38175 has 45 MA's), (Start: 21 @38100 has 22 MA's), (Start: 41 @38022 has 29 MA's), (Start: 45 @38007 has 1 MA's), (Start: 47 @37992 has 1 MA's), (66, 37872), (67, 37869), (78, 37797), (82, 37767), (91, 37689), (103, 37635),

Gene: Lopton\_55 Start: 41306, Stop: 40662, Start Num: 12

Candidate Starts for Lopton\_55:

(Start: 12 @41306 has 28 MA's), (Start: 29 @41183 has 115 MA's), (Start: 41 @41132 has 29 MA's), (Start: 44 @41120 has 4 MA's), (63, 40991), (68, 40970), (69, 40952), (87, 40826), (91, 40793), (95, 40775), (103, 40739), (110, 40709),

Gene: Lorelei\_40 Start: 28695, Stop: 29360, Start Num: 7

Candidate Starts for Lorelei\_40:

(Start: 7 @28695 has 37 MA's), (Start: 9 @28710 has 573 MA's), (11, 28713), (Start: 37 @28854 has 23 MA's), (Start: 53 @28938 has 4 MA's), (60, 28995), (61, 29001), (63, 29022), (73, 29091), (74, 29094), (76, 29103), (78, 29112), (79, 29121), (84, 29166), (87, 29187), (102, 29268), (107, 29289), (117, 29337),

Gene: Lorenzo\_55 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Lorenzo\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Loser\_61 Start: 39619, Stop: 39080, Start Num: 21

Candidate Starts for Loser\_61:

(Start: 21 @39619 has 22 MA's), (30, 39583), (Start: 37 @39565 has 23 MA's), (Start: 47 @39508 has 1 MA's), (60, 39430), (61, 39424), (67, 39385), (69, 39364), (82, 39283), (87, 39238), (91, 39205), (95, 39187), (103, 39151),

Gene: Louie6\_61 Start: 38927, Stop: 38268, Start Num: 9

Candidate Starts for Louie6\_61:

(Start: 9 @38927 has 573 MA's), (Start: 21 @38834 has 22 MA's), (Start: 33 @38780 has 2 MA's), (Start: 37 @38768 has 23 MA's), (Start: 41 @38741 has 29 MA's), (60, 38621), (76, 38513), (80, 38489), (103, 38342), (108, 38324), (110, 38312),

Gene: Lowa\_62 Start: 38890, Stop: 38231, Start Num: 9

Candidate Starts for Lowa\_62:

(Start: 9 @38890 has 573 MA's), (Start: 21 @38797 has 22 MA's), (Start: 33 @38743 has 2 MA's), (Start: 37 @38731 has 23 MA's), (Start: 41 @38704 has 29 MA's), (60, 38584), (76, 38476), (79, 38458), (80, 38452), (95, 38341), (103, 38305), (108, 38287), (110, 38275),

Gene: Luchador\_62 Start: 40565, Stop: 39939, Start Num: 9

Candidate Starts for Luchador\_62:

(Start: 9 @40565 has 573 MA's), (16, 40529), (Start: 21 @40472 has 22 MA's), (Start: 37 @40424 has 23 MA's), (Start: 47 @40367 has 1 MA's), (60, 40289), (69, 40223), (76, 40181), (82, 40142), (84, 40118), (87, 40097), (103, 40010), (111, 39977),

Gene: Lucivia\_60 Start: 38709, Stop: 38062, Start Num: 9

Candidate Starts for Lucivia\_60:

(Start: 9 @38709 has 573 MA's), (Start: 21 @38616 has 22 MA's), (Start: 37 @38562 has 23 MA's), (Start: 41 @38535 has 29 MA's), (Start: 47 @38505 has 1 MA's), (61, 38409), (69, 38349), (80, 38283), (82, 38268), (87, 38223), (90, 38214), (91, 38190), (103, 38136), (111, 38103),

Gene: Lucyedi\_61 Start: 39216, Stop: 38578, Start Num: 9

Candidate Starts for Lucyedi\_61:

(Start: 9 @39216 has 573 MA's), (Start: 21 @39123 has 22 MA's), (Start: 37 @39069 has 23 MA's), (Start: 41 @39042 has 29 MA's), (Start: 45 @39027 has 1 MA's), (Start: 47 @39012 has 1 MA's), (61, 38925), (69, 38865), (76, 38820), (83, 38766), (87, 38736), (95, 38685), (103, 38649),

Gene: LugYA\_65 Start: 38899, Stop: 38240, Start Num: 9

Candidate Starts for LugYA\_65:

(Start: 9 @38899 has 573 MA's), (Start: 21 @38806 has 22 MA's), (Start: 33 @38752 has 2 MA's), (Start: 37 @38740 has 23 MA's), (Start: 41 @38713 has 29 MA's), (60, 38593), (76, 38485), (79, 38467), (80, 38461), (95, 38350), (103, 38314), (108, 38296), (110, 38284),

Gene: LunarLander\_59 Start: 38949, Stop: 38491, Start Num: 44

Candidate Starts for LunarLander\_59:

(Start: 29 @39012 has 115 MA's), (Start: 37 @38988 has 23 MA's), (Start: 41 @38961 has 29 MA's), (Start: 44 @38949 has 4 MA's), (Start: 52 @38901 has 1 MA's), (67, 38802), (73, 38751), (87, 38655), (88, 38652), (91, 38622), (95, 38604), (96, 38601), (103, 38568), (110, 38538), (111, 38535),

Gene: Lunsford\_56 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for Lunsford\_56:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 25 @38022 has 1 MA's), (Start: 33 @37986 has 2 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 45 @37932 has 1 MA's), (60, 37827), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (95, 37584), (101, 37557), (103, 37548), (119, 37482),

Gene: MA5\_58 Start: 37926, Stop: 37264, Start Num: 9

Candidate Starts for MA5\_58:

(Start: 9 @37926 has 573 MA's), (Start: 21 @37833 has 22 MA's), (Start: 33 @37779 has 2 MA's), (Start: 37 @37767 has 23 MA's), (Start: 41 @37740 has 29 MA's), (Start: 45 @37725 has 1 MA's), (Start: 53 @37677 has 4 MA's), (60, 37620), (68, 37572), (76, 37512), (79, 37494), (80, 37488), (82, 37473), (83, 37458), (87, 37428), (95, 37377), (103, 37341), (108, 37323), (119, 37275),

Gene: MEAK\_30 Start: 21034, Stop: 20363, Start Num: 13

Candidate Starts for MEAK\_30:

(Start: 13 @21034 has 45 MA's), (Start: 47 @20821 has 1 MA's), (Start: 53 @20782 has 4 MA's), (64, 20689), (67, 20680), (69, 20659), (73, 20629), (93, 20494), (101, 20452), (113, 20395), (118, 20374),

Gene: MK4\_58 Start: 38010, Stop: 37348, Start Num: 9

Candidate Starts for MK4\_58:

(Start: 9 @38010 has 573 MA's), (Start: 21 @37917 has 22 MA's), (Start: 33 @37863 has 2 MA's), (Start: 37 @37851 has 23 MA's), (Start: 41 @37824 has 29 MA's), (Start: 45 @37809 has 1 MA's), (Start: 53 @37761 has 4 MA's), (60, 37704), (68, 37656), (76, 37596), (79, 37578), (80, 37572), (82, 37557), (83, 37542), (87, 37512), (95, 37461), (103, 37425), (108, 37407), (119, 37359),

Gene: MPlant7149\_53 Start: 37868, Stop: 37290, Start Num: 20

Candidate Starts for MPlant7149\_53:

(Start: 20 @37868 has 38 MA's), (Start: 29 @37811 has 115 MA's), (Start: 37 @37787 has 23 MA's), (Start: 41 @37760 has 29 MA's), (Start: 44 @37748 has 4 MA's), (Start: 52 @37700 has 1 MA's), (73, 37550), (87, 37454), (88, 37451), (91, 37421), (95, 37403), (103, 37367), (110, 37337),

Gene: MaCh\_60 Start: 38639, Stop: 37992, Start Num: 9

Candidate Starts for MaCh\_60:



(Start: 9 @38639 has 573 MA's), (Start: 21 @38546 has 22 MA's), (Start: 37 @38492 has 23 MA's), (Start: 41 @38465 has 29 MA's), (Start: 47 @38435 has 1 MA's), (61, 38339), (69, 38279), (80, 38213), (82, 38198), (87, 38153), (90, 38144), (91, 38120), (103, 38066), (111, 38033),

Gene: Mabel\_59 Start: 38241, Stop: 37594, Start Num: 9

Candidate Starts for Mabel\_59:

(Start: 9 @38241 has 573 MA's), (Start: 21 @38148 has 22 MA's), (Start: 37 @38094 has 23 MA's), (Start: 41 @38067 has 29 MA's), (Start: 47 @38037 has 1 MA's), (61, 37941), (69, 37881), (80, 37815), (82, 37800), (87, 37755), (90, 37746), (91, 37722), (103, 37668), (111, 37635),

Gene: MadMarie\_62 Start: 38900, Stop: 38241, Start Num: 9

Candidate Starts for MadMarie\_62:

(Start: 9 @38900 has 573 MA's), (Start: 21 @38807 has 22 MA's), (Start: 33 @38753 has 2 MA's), (Start: 37 @38741 has 23 MA's), (Start: 41 @38714 has 29 MA's), (60, 38594), (76, 38486), (79, 38468), (80, 38462), (95, 38351), (103, 38315), (108, 38297), (110, 38285),

Gene: Magnar\_54 Start: 39316, Stop: 38735, Start Num: 20

Candidate Starts for Magnar\_54:

(Start: 20 @39316 has 38 MA's), (Start: 29 @39259 has 115 MA's), (Start: 37 @39235 has 23 MA's), (Start: 41 @39208 has 29 MA's), (Start: 44 @39196 has 4 MA's), (Start: 52 @39148 has 1 MA's), (73, 38998), (87, 38902), (88, 38899), (91, 38869), (95, 38851), (103, 38815), (110, 38782), (111, 38779),

Gene: Magnito\_53 Start: 39035, Stop: 38457, Start Num: 20

Candidate Starts for Magnito\_53:

(Start: 20 @39035 has 38 MA's), (Start: 29 @38978 has 115 MA's), (Start: 37 @38954 has 23 MA's), (Start: 41 @38927 has 29 MA's), (Start: 44 @38915 has 4 MA's), (Start: 52 @38867 has 1 MA's), (73, 38717), (87, 38621), (91, 38588), (95, 38570), (103, 38534), (110, 38504),

Gene: Mainiac\_62 Start: 38892, Stop: 38233, Start Num: 9

Candidate Starts for Mainiac\_62:

(Start: 9 @38892 has 573 MA's), (Start: 21 @38799 has 22 MA's), (Start: 33 @38745 has 2 MA's), (Start: 37 @38733 has 23 MA's), (Start: 41 @38706 has 29 MA's), (60, 38586), (76, 38478), (79, 38460), (80, 38454), (95, 38343), (103, 38307), (108, 38289), (110, 38277),

Gene: MajorMajor\_59 Start: 38259, Stop: 37627, Start Num: 9

Candidate Starts for MajorMajor\_59:

(Start: 9 @38259 has 573 MA's), (Start: 21 @38166 has 22 MA's), (Start: 24 @38151 has 2 MA's), (Start: 37 @38112 has 23 MA's), (Start: 41 @38085 has 29 MA's), (Start: 47 @38055 has 1 MA's), (60, 37977), (67, 37932), (69, 37911), (82, 37830), (87, 37785), (91, 37752), (95, 37734), (103, 37698),

Gene: Makemake\_55 Start: 39644, Stop: 39120, Start Num: 29

Candidate Starts for Makemake\_55:

(Start: 29 @39644 has 115 MA's), (Start: 37 @39620 has 23 MA's), (Start: 41 @39593 has 29 MA's), (Start: 44 @39581 has 4 MA's), (Start: 52 @39533 has 1 MA's), (73, 39383), (87, 39287), (88, 39284), (91, 39254), (95, 39236), (103, 39200), (110, 39167), (111, 39164),

Gene: Malec\_59 Start: 39630, Stop: 38998, Start Num: 9

Candidate Starts for Malec\_59:

(Start: 9 @39630 has 573 MA's), (Start: 21 @39537 has 22 MA's), (Start: 37 @39483 has 23 MA's), (Start: 47 @39426 has 1 MA's), (60, 39348), (61, 39342), (69, 39282), (79, 39222), (82, 39201), (87, 39156), (91, 39123), (103, 39069),

Gene: Malinsilva\_64 Start: 38890, Stop: 38231, Start Num: 9

Candidate Starts for Malinsilva\_64:

(Start: 9 @38890 has 573 MA's), (Start: 21 @38797 has 22 MA's), (Start: 33 @38743 has 2 MA's), (Start: 37 @38731 has 23 MA's), (Start: 41 @38704 has 29 MA's), (60, 38584), (76, 38476), (79, 38458), (80, 38452), (95, 38341), (103, 38305), (108, 38287), (110, 38275),

Gene: Maminiaina\_58 Start: 38853, Stop: 38227, Start Num: 9

Candidate Starts for Maminiaina\_58:

(Start: 9 @38853 has 573 MA's), (Start: 21 @38760 has 22 MA's), (Start: 37 @38712 has 23 MA's), (Start: 41 @38685 has 29 MA's), (60, 38577), (69, 38511), (82, 38430), (87, 38385), (103, 38298),

Gene: Manatee\_56 Start: 39465, Stop: 38821, Start Num: 12

Candidate Starts for Manatee\_56:

(Start: 12 @39465 has 28 MA's), (Start: 29 @39342 has 115 MA's), (Start: 41 @39291 has 29 MA's), (Start: 44 @39279 has 4 MA's), (63, 39150), (68, 39129), (69, 39111), (87, 38985), (91, 38952), (95, 38934), (103, 38898), (110, 38868),

Gene: Maneekul\_39 Start: 28214, Stop: 28879, Start Num: 7

Candidate Starts for Maneekul\_39:

(Start: 7 @28214 has 37 MA's), (Start: 9 @28229 has 573 MA's), (11, 28232), (Start: 53 @28457 has 4 MA's), (60, 28514), (61, 28520), (63, 28541), (71, 28586), (73, 28610), (76, 28622), (78, 28631), (79, 28640), (84, 28685), (87, 28706), (102, 28787), (107, 28808), (117, 28856),

Gene: Manu\_62 Start: 38784, Stop: 38125, Start Num: 9

Candidate Starts for Manu\_62:

(Start: 9 @38784 has 573 MA's), (Start: 21 @38691 has 22 MA's), (Start: 33 @38637 has 2 MA's), (Start: 37 @38625 has 23 MA's), (Start: 41 @38598 has 29 MA's), (60, 38478), (76, 38370), (79, 38352), (80, 38346), (91, 38253), (95, 38235), (103, 38199), (108, 38181), (110, 38169),

Gene: Manuel\_55 Start: 30734, Stop: 30102, Start Num: 9

Candidate Starts for Manuel\_55:

(Start: 9 @30734 has 573 MA's), (Start: 13 @30716 has 45 MA's), (15, 30704), (42, 30560), (Start: 47 @30536 has 1 MA's), (50, 30512), (55, 30497), (67, 30410), (79, 30329), (87, 30263), (96, 30209), (97, 30206),

Gene: MarQuardt\_62 Start: 38900, Stop: 38241, Start Num: 9

Candidate Starts for MarQuardt\_62:

(Start: 9 @38900 has 573 MA's), (Start: 21 @38807 has 22 MA's), (Start: 33 @38753 has 2 MA's), (Start: 37 @38741 has 23 MA's), (Start: 41 @38714 has 29 MA's), (60, 38594), (76, 38486), (79, 38468), (80, 38462), (95, 38351), (103, 38315), (108, 38297), (110, 38285),

Gene: Marav\_43 Start: 29789, Stop: 30451, Start Num: 6

Candidate Starts for Marav\_43:

(Start: 6 @29789 has 32 MA's), (15, 29837), (17, 29852), (19, 29873), (28, 29930), (Start: 43 @29990 has 1 MA's), (Start: 53 @30035 has 4 MA's), (63, 30119), (82, 30239), (84, 30263), (87, 30284), (117, 30431),

Gene: Marcell\_52 Start: 38337, Stop: 37816, Start Num: 29

Candidate Starts for Marcell\_52:

(Start: 29 @38337 has 115 MA's), (Start: 37 @38313 has 23 MA's), (Start: 41 @38286 has 29 MA's), (Start: 44 @38274 has 4 MA's), (Start: 52 @38226 has 1 MA's), (67, 38127), (73, 38076), (87, 37980), (88, 37977), (91, 37947), (95, 37929), (103, 37893), (110, 37863),

Gene: Marchesa\_58 Start: 38442, Stop: 37780, Start Num: 9

Candidate Starts for Marchesa\_58:

(Start: 9 @38442 has 573 MA's), (Start: 21 @38349 has 22 MA's), (Start: 33 @38295 has 2 MA's),  
(Start: 37 @38283 has 23 MA's), (Start: 41 @38256 has 29 MA's), (Start: 45 @38241 has 1 MA's),  
(Start: 53 @38193 has 4 MA's), (60, 38136), (68, 38088), (76, 38028), (80, 38004), (82, 37989), (83,  
37974), (87, 37944), (95, 37893), (103, 37857), (108, 37839), (119, 37791),

Gene: Marchy\_49 Start: 36246, Stop: 35725, Start Num: 29

Candidate Starts for Marchy\_49:

(Start: 29 @36246 has 115 MA's), (Start: 37 @36222 has 23 MA's), (Start: 41 @36195 has 29 MA's),  
(Start: 44 @36183 has 4 MA's), (Start: 52 @36135 has 1 MA's), (67, 36036), (73, 35985), (87, 35889),  
(91, 35856), (95, 35838), (103, 35802), (110, 35772),

Gene: Marco3\_58 Start: 40921, Stop: 40397, Start Num: 29

Candidate Starts for Marco3\_58:

(Start: 29 @40921 has 115 MA's), (Start: 37 @40897 has 23 MA's), (Start: 41 @40870 has 29 MA's),  
(Start: 44 @40858 has 4 MA's), (Start: 52 @40810 has 1 MA's), (73, 40660), (87, 40564), (88, 40561),  
(91, 40531), (95, 40513), (103, 40477), (110, 40444), (111, 40441),

Gene: Marge\_54 Start: 39202, Stop: 38705, Start Num: 37

Candidate Starts for Marge\_54:

(Start: 29 @39226 has 115 MA's), (Start: 37 @39202 has 23 MA's), (Start: 41 @39175 has 29 MA's),  
(Start: 44 @39163 has 4 MA's), (Start: 52 @39115 has 1 MA's), (67, 39016), (73, 38965), (88, 38866),  
(91, 38836), (95, 38818), (103, 38782), (110, 38752),

Gene: Margo\_57 Start: 38540, Stop: 37878, Start Num: 9

Candidate Starts for Margo\_57:

(Start: 9 @38540 has 573 MA's), (Start: 21 @38447 has 22 MA's), (Start: 24 @38432 has 2 MA's),  
(Start: 33 @38393 has 2 MA's), (Start: 37 @38381 has 23 MA's), (Start: 41 @38354 has 29 MA's), (60,  
38234), (68, 38186), (76, 38126), (79, 38108), (80, 38102), (82, 38087), (83, 38072), (103, 37955),  
(108, 37937),

Gene: Marie\_61 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for Marie\_61:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's),  
(Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79,  
38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: Marius\_63 Start: 38781, Stop: 38122, Start Num: 9

Candidate Starts for Marius\_63:

(Start: 9 @38781 has 573 MA's), (Start: 21 @38688 has 22 MA's), (Start: 33 @38634 has 2 MA's),  
(Start: 37 @38622 has 23 MA's), (Start: 41 @38595 has 29 MA's), (60, 38475), (76, 38367), (79,  
38349), (80, 38343), (91, 38250), (95, 38232), (103, 38196), (108, 38178), (110, 38166),

Gene: Marsha\_54 Start: 39767, Stop: 39246, Start Num: 29

Candidate Starts for Marsha\_54:

(Start: 20 @39824 has 38 MA's), (Start: 29 @39767 has 115 MA's), (Start: 37 @39743 has 23 MA's),  
(Start: 41 @39716 has 29 MA's), (Start: 44 @39704 has 4 MA's), (Start: 52 @39656 has 1 MA's), (67,  
39557), (73, 39506), (87, 39410), (91, 39377), (95, 39359), (103, 39323), (110, 39293),

Gene: MaryBeth\_54 Start: 39564, Stop: 39043, Start Num: 29

Candidate Starts for MaryBeth\_54:

(Start: 29 @39564 has 115 MA's), (Start: 37 @39540 has 23 MA's), (Start: 41 @39513 has 29 MA's),  
(Start: 44 @39501 has 4 MA's), (Start: 52 @39453 has 1 MA's), (73, 39303), (87, 39207), (91, 39174),

(95, 39156), (103, 39120), (110, 39090),

Gene: MarysWell\_53 Start: 38784, Stop: 38122, Start Num: 9

Candidate Starts for MarysWell\_53:

(Start: 9 @38784 has 573 MA's), (Start: 21 @38691 has 22 MA's), (Start: 25 @38673 has 1 MA's),  
(Start: 33 @38631 has 2 MA's), (Start: 37 @38619 has 23 MA's), (Start: 41 @38592 has 29 MA's),  
(Start: 44 @38580 has 4 MA's), (69, 38415), (80, 38349), (83, 38319), (87, 38289), (89, 38283), (91,  
38256), (95, 38238), (101, 38211), (103, 38202), (108, 38184), (110, 38172), (111, 38169),

Gene: Maverick\_55 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Maverick\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's),  
(Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's),  
(Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95,  
37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Maxo\_56 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Maxo\_56:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's),  
(Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's),  
(Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95,  
37592), (101, 37565), (103, 37556), (119, 37490),

Gene: Mayonnaise\_55 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Mayonnaise\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's),  
(Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's),  
(Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95,  
37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Mazhar510\_55 Start: 38140, Stop: 37481, Start Num: 9

Candidate Starts for Mazhar510\_55:

(Start: 9 @38140 has 573 MA's), (Start: 21 @38047 has 22 MA's), (Start: 25 @38029 has 1 MA's),  
(Start: 33 @37993 has 2 MA's), (Start: 37 @37981 has 23 MA's), (Start: 41 @37954 has 29 MA's),  
(Start: 45 @37939 has 1 MA's), (60, 37834), (79, 37708), (80, 37702), (82, 37687), (83, 37672), (95,  
37591), (101, 37564), (103, 37555), (119, 37489),

Gene: McFly\_60 Start: 37718, Stop: 37086, Start Num: 9

Candidate Starts for McFly\_60:

(Start: 9 @37718 has 573 MA's), (Start: 21 @37625 has 22 MA's), (Start: 37 @37571 has 23 MA's),  
(Start: 47 @37514 has 1 MA's), (60, 37436), (69, 37370), (82, 37289), (87, 37244), (91, 37211), (95,  
37193), (103, 37157), (110, 37127), (111, 37124),

Gene: McGuire\_56 Start: 38808, Stop: 38287, Start Num: 29

Candidate Starts for McGuire\_56:

(Start: 29 @38808 has 115 MA's), (Start: 37 @38784 has 23 MA's), (Start: 41 @38757 has 29 MA's),  
(Start: 44 @38745 has 4 MA's), (Start: 52 @38697 has 1 MA's), (67, 38598), (73, 38547), (87, 38451),  
(91, 38418), (95, 38400), (103, 38364), (110, 38334),

Gene: McSinger\_55 Start: 38954, Stop: 38433, Start Num: 29

Candidate Starts for McSinger\_55:

(Start: 29 @38954 has 115 MA's), (Start: 37 @38930 has 23 MA's), (Start: 41 @38903 has 29 MA's),  
(Start: 44 @38891 has 4 MA's), (Start: 52 @38843 has 1 MA's), (67, 38744), (73, 38693), (87, 38597),

(91, 38564), (95, 38546), (103, 38510), (110, 38480),

Gene: Medusa\_55 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for Medusa\_55:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: MeeZee\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for MeeZee\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Melvin\_57 Start: 38134, Stop: 37475, Start Num: 9

Candidate Starts for Melvin\_57:

(Start: 9 @38134 has 573 MA's), (Start: 21 @38041 has 22 MA's), (Start: 25 @38023 has 1 MA's), (Start: 33 @37987 has 2 MA's), (Start: 37 @37975 has 23 MA's), (Start: 41 @37948 has 29 MA's), (Start: 45 @37933 has 1 MA's), (60, 37828), (79, 37702), (80, 37696), (82, 37681), (83, 37666), (95, 37585), (101, 37558), (103, 37549), (119, 37483),

Gene: MetalQZJ\_53 Start: 39564, Stop: 39043, Start Num: 29

Candidate Starts for MetalQZJ\_53:

(Start: 29 @39564 has 115 MA's), (Start: 37 @39540 has 23 MA's), (Start: 41 @39513 has 29 MA's), (Start: 44 @39501 has 4 MA's), (Start: 52 @39453 has 1 MA's), (73, 39303), (87, 39207), (91, 39174), (95, 39156), (103, 39120), (110, 39090),

Gene: Methuselah\_57 Start: 38922, Stop: 38263, Start Num: 9

Candidate Starts for Methuselah\_57:

(Start: 9 @38922 has 573 MA's), (Start: 21 @38829 has 22 MA's), (Start: 33 @38775 has 2 MA's), (Start: 37 @38763 has 23 MA's), (Start: 41 @38736 has 29 MA's), (60, 38616), (76, 38508), (79, 38490), (80, 38484), (95, 38373), (103, 38337), (108, 38319), (110, 38307),

Gene: Micasa\_54 Start: 38658, Stop: 37999, Start Num: 9

Candidate Starts for Micasa\_54:

(Start: 9 @38658 has 573 MA's), (Start: 21 @38565 has 22 MA's), (Start: 25 @38547 has 1 MA's), (Start: 33 @38505 has 2 MA's), (Start: 37 @38493 has 23 MA's), (Start: 41 @38466 has 29 MA's), (Start: 44 @38454 has 4 MA's), (Start: 53 @38403 has 4 MA's), (80, 38226), (81, 38217), (83, 38196), (86, 38181), (87, 38166), (89, 38160), (91, 38133), (95, 38115), (101, 38088), (103, 38079), (108, 38061), (110, 38049), (111, 38046),

Gene: Microwolf\_61 Start: 38914, Stop: 38255, Start Num: 9

Candidate Starts for Microwolf\_61:

(Start: 9 @38914 has 573 MA's), (Start: 21 @38821 has 22 MA's), (Start: 33 @38767 has 2 MA's), (Start: 37 @38755 has 23 MA's), (Start: 41 @38728 has 29 MA's), (60, 38608), (76, 38500), (79, 38482), (80, 38476), (95, 38365), (103, 38329), (108, 38311), (110, 38299),

Gene: MiculUcigas\_59 Start: 38657, Stop: 38025, Start Num: 9

Candidate Starts for MiculUcigas\_59:

(Start: 9 @38657 has 573 MA's), (Start: 21 @38564 has 22 MA's), (Start: 37 @38510 has 23 MA's), (Start: 47 @38453 has 1 MA's), (57, 38399), (60, 38375), (61, 38369), (69, 38309), (79, 38249), (82,

38228), (87, 38183), (91, 38150), (103, 38096),

Gene: Midas2\_52 Start: 38566, Stop: 37907, Start Num: 9

Candidate Starts for Midas2\_52:

(Start: 9 @38566 has 573 MA's), (Start: 21 @38473 has 22 MA's), (Start: 25 @38455 has 1 MA's), (Start: 33 @38413 has 2 MA's), (Start: 37 @38401 has 23 MA's), (Start: 41 @38374 has 29 MA's), (Start: 44 @38362 has 4 MA's), (Start: 45 @38359 has 1 MA's), (69, 38200), (80, 38134), (81, 38125), (83, 38104), (86, 38089), (87, 38074), (89, 38068), (91, 38041), (95, 38023), (101, 37996), (103, 37987), (108, 37969), (110, 37957), (111, 37954),

Gene: Miko\_56 Start: 39210, Stop: 38578, Start Num: 9

Candidate Starts for Miko\_56:

(Start: 9 @39210 has 573 MA's), (Start: 21 @39117 has 22 MA's), (Start: 37 @39063 has 23 MA's), (Start: 41 @39036 has 29 MA's), (60, 38928), (61, 38922), (69, 38862), (82, 38781), (87, 38736), (91, 38703), (95, 38685), (103, 38649), (110, 38619),

Gene: Milcery\_53 Start: 38441, Stop: 37782, Start Num: 9

Candidate Starts for Milcery\_53:

(Start: 9 @38441 has 573 MA's), (Start: 21 @38348 has 22 MA's), (Start: 25 @38330 has 1 MA's), (Start: 33 @38288 has 2 MA's), (Start: 37 @38276 has 23 MA's), (Start: 41 @38249 has 29 MA's), (Start: 44 @38237 has 4 MA's), (Start: 53 @38186 has 4 MA's), (80, 38009), (81, 38000), (83, 37979), (86, 37964), (87, 37949), (89, 37943), (91, 37916), (95, 37898), (101, 37871), (103, 37862), (108, 37844), (110, 37832), (111, 37829),

Gene: Millski\_54 Start: 38140, Stop: 37481, Start Num: 9

Candidate Starts for Millski\_54:

(Start: 9 @38140 has 573 MA's), (Start: 21 @38047 has 22 MA's), (Start: 25 @38029 has 1 MA's), (Start: 33 @37993 has 2 MA's), (Start: 37 @37981 has 23 MA's), (Start: 41 @37954 has 29 MA's), (Start: 45 @37939 has 1 MA's), (60, 37834), (79, 37708), (80, 37702), (82, 37687), (83, 37672), (95, 37591), (101, 37564), (103, 37555), (119, 37489),

Gene: MinecraftSteve\_66 Start: 38517, Stop: 37885, Start Num: 9

Candidate Starts for MinecraftSteve\_66:

(Start: 9 @38517 has 573 MA's), (Start: 13 @38499 has 45 MA's), (Start: 21 @38424 has 22 MA's), (Start: 41 @38346 has 29 MA's), (Start: 45 @38331 has 1 MA's), (Start: 47 @38316 has 1 MA's), (66, 38196), (67, 38193), (78, 38121), (82, 38091), (91, 38013), (103, 37959),

Gene: Miramae\_53 Start: 37553, Stop: 36894, Start Num: 9

Candidate Starts for Miramae\_53:

(Start: 9 @37553 has 573 MA's), (Start: 21 @37460 has 22 MA's), (Start: 25 @37442 has 1 MA's), (Start: 33 @37406 has 2 MA's), (Start: 37 @37394 has 23 MA's), (Start: 41 @37367 has 29 MA's), (Start: 45 @37352 has 1 MA's), (60, 37247), (79, 37121), (82, 37100), (83, 37085), (95, 37004), (101, 36977), (103, 36968), (119, 36902),

Gene: Misomonster\_63 Start: 38925, Stop: 38266, Start Num: 9

Candidate Starts for Misomonster\_63:

(Start: 9 @38925 has 573 MA's), (Start: 21 @38832 has 22 MA's), (Start: 33 @38778 has 2 MA's), (Start: 37 @38766 has 23 MA's), (Start: 41 @38739 has 29 MA's), (60, 38619), (76, 38511), (79, 38493), (80, 38487), (95, 38376), (103, 38340), (108, 38322), (110, 38310),

Gene: MissWhite\_58 Start: 37557, Stop: 36925, Start Num: 9

Candidate Starts for MissWhite\_58:

(Start: 9 @37557 has 573 MA's), (Start: 21 @37464 has 22 MA's), (Start: 37 @37410 has 23 MA's), (Start: 41 @37383 has 29 MA's), (Start: 47 @37353 has 1 MA's), (60, 37275), (63, 37248), (69, 37209), (79, 37149), (82, 37128), (87, 37083), (91, 37050), (103, 36996),

Gene: Mkhuseleli\_53 Start: 37909, Stop: 37331, Start Num: 20

Candidate Starts for Mkhuseleli\_53:

(Start: 20 @37909 has 38 MA's), (Start: 29 @37852 has 115 MA's), (Start: 37 @37828 has 23 MA's), (Start: 41 @37801 has 29 MA's), (Start: 44 @37789 has 4 MA's), (Start: 52 @37741 has 1 MA's), (67, 37642), (73, 37591), (87, 37495), (88, 37492), (91, 37462), (95, 37444), (103, 37408), (110, 37378),

Gene: Molly\_56 Start: 38286, Stop: 37708, Start Num: 20

Candidate Starts for Molly\_56:

(Start: 20 @38286 has 38 MA's), (Start: 29 @38229 has 115 MA's), (Start: 37 @38205 has 23 MA's), (Start: 41 @38178 has 29 MA's), (Start: 44 @38166 has 4 MA's), (Start: 52 @38118 has 1 MA's), (73, 37968), (87, 37872), (88, 37869), (91, 37839), (95, 37821), (103, 37785), (110, 37755),

Gene: Monet\_57 Start: 39984, Stop: 39463, Start Num: 29

Candidate Starts for Monet\_57:

(Start: 29 @39984 has 115 MA's), (Start: 37 @39960 has 23 MA's), (Start: 41 @39933 has 29 MA's), (Start: 44 @39921 has 4 MA's), (Start: 52 @39873 has 1 MA's), (67, 39774), (73, 39723), (87, 39627), (91, 39594), (95, 39576), (103, 39540), (110, 39510),

Gene: MoneyMay\_62 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for MoneyMay\_62:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's), (Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79, 38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: Moose\_54 Start: 38503, Stop: 37982, Start Num: 29

Candidate Starts for Moose\_54:

(Start: 29 @38503 has 115 MA's), (Start: 37 @38479 has 23 MA's), (Start: 41 @38452 has 29 MA's), (Start: 44 @38440 has 4 MA's), (Start: 52 @38392 has 1 MA's), (67, 38293), (73, 38242), (87, 38146), (91, 38113), (95, 38095), (103, 38059), (110, 38029),

Gene: Morpher26\_54 Start: 38113, Stop: 37454, Start Num: 9

Candidate Starts for Morpher26\_54:

(Start: 9 @38113 has 573 MA's), (Start: 21 @38020 has 22 MA's), (Start: 25 @38002 has 1 MA's), (Start: 33 @37966 has 2 MA's), (Start: 37 @37954 has 23 MA's), (Start: 41 @37927 has 29 MA's), (Start: 45 @37912 has 1 MA's), (60, 37807), (79, 37681), (82, 37660), (83, 37645), (95, 37564), (103, 37528), (119, 37462),

Gene: Morrow\_56 Start: 38145, Stop: 37486, Start Num: 9

Candidate Starts for Morrow\_56:

(Start: 9 @38145 has 573 MA's), (Start: 21 @38052 has 22 MA's), (Start: 25 @38034 has 1 MA's), (Start: 33 @37998 has 2 MA's), (Start: 37 @37986 has 23 MA's), (Start: 41 @37959 has 29 MA's), (Start: 45 @37944 has 1 MA's), (60, 37839), (79, 37713), (80, 37707), (82, 37692), (83, 37677), (95, 37596), (101, 37569), (103, 37560), (119, 37494),

Gene: Moyashi\_30 Start: 21139, Stop: 20468, Start Num: 13

Candidate Starts for Moyashi\_30:

(Start: 13 @21139 has 45 MA's), (Start: 47 @20926 has 1 MA's), (Start: 53 @20887 has 4 MA's), (64, 20794), (67, 20785), (69, 20764), (73, 20734), (93, 20599), (101, 20557), (113, 20500), (118, 20479),

Gene: MrAK\_30 Start: 21144, Stop: 20473, Start Num: 13

Candidate Starts for MrAK\_30:

(Start: 13 @21144 has 45 MA's), (Start: 47 @20931 has 1 MA's), (Start: 53 @20892 has 4 MA's), (64, 20799), (67, 20790), (69, 20769), (73, 20739), (93, 20604), (101, 20562), (113, 20505), (118, 20484),

Gene: MrGordo\_54 Start: 39144, Stop: 38497, Start Num: 12

Candidate Starts for MrGordo\_54:

(Start: 12 @39144 has 28 MA's), (Start: 29 @39021 has 115 MA's), (Start: 41 @38970 has 29 MA's), (Start: 44 @38958 has 4 MA's), (58, 38877), (63, 38829), (68, 38808), (69, 38790), (79, 38730), (87, 38664), (91, 38631), (95, 38613), (103, 38577), (110, 38544), (111, 38541),

Gene: Mryolo\_52 Start: 39030, Stop: 38509, Start Num: 29

Candidate Starts for Mryolo\_52:

(Start: 29 @39030 has 115 MA's), (Start: 37 @39006 has 23 MA's), (Start: 41 @38979 has 29 MA's), (Start: 44 @38967 has 4 MA's), (Start: 52 @38919 has 1 MA's), (67, 38820), (73, 38769), (87, 38673), (88, 38670), (91, 38640), (95, 38622), (103, 38586), (110, 38556),

Gene: MuchMore\_65 Start: 38890, Stop: 38231, Start Num: 9

Candidate Starts for MuchMore\_65:

(Start: 9 @38890 has 573 MA's), (Start: 21 @38797 has 22 MA's), (Start: 33 @38743 has 2 MA's), (Start: 37 @38731 has 23 MA's), (Start: 41 @38704 has 29 MA's), (60, 38584), (76, 38476), (79, 38458), (80, 38452), (95, 38341), (103, 38305), (108, 38287), (110, 38275),

Gene: Mulciber\_59 Start: 38197, Stop: 37550, Start Num: 9

Candidate Starts for Mulciber\_59:

(Start: 9 @38197 has 573 MA's), (19, 38131), (Start: 21 @38104 has 22 MA's), (Start: 37 @38050 has 23 MA's), (Start: 41 @38023 has 29 MA's), (Start: 47 @37993 has 1 MA's), (61, 37897), (69, 37837), (80, 37771), (82, 37756), (87, 37711), (90, 37702), (91, 37678), (103, 37624), (111, 37591),

Gene: Mule\_52 Start: 37269, Stop: 36745, Start Num: 29

Candidate Starts for Mule\_52:

(Start: 29 @37269 has 115 MA's), (Start: 37 @37245 has 23 MA's), (Start: 41 @37218 has 29 MA's), (Start: 44 @37206 has 4 MA's), (Start: 52 @37158 has 1 MA's), (67, 37059), (73, 37008), (87, 36912), (91, 36879), (95, 36861), (103, 36825), (110, 36792), (111, 36789),

Gene: Munch\_60 Start: 38660, Stop: 38013, Start Num: 9

Candidate Starts for Munch\_60:

(Start: 9 @38660 has 573 MA's), (Start: 21 @38567 has 22 MA's), (Start: 37 @38513 has 23 MA's), (Start: 41 @38486 has 29 MA's), (Start: 47 @38456 has 1 MA's), (61, 38360), (69, 38300), (80, 38234), (82, 38219), (87, 38174), (90, 38165), (91, 38141), (103, 38087), (111, 38054),

Gene: Mundrea\_54 Start: 38105, Stop: 37446, Start Num: 9

Candidate Starts for Mundrea\_54:

(Start: 9 @38105 has 573 MA's), (Start: 21 @38012 has 22 MA's), (Start: 25 @37994 has 1 MA's), (Start: 33 @37958 has 2 MA's), (Start: 37 @37946 has 23 MA's), (Start: 41 @37919 has 29 MA's), (Start: 45 @37904 has 1 MA's), (60, 37799), (79, 37673), (82, 37652), (83, 37637), (95, 37556), (101, 37529), (103, 37520), (119, 37454),

Gene: Museum\_56 Start: 39379, Stop: 38858, Start Num: 29

Candidate Starts for Museum\_56:

(Start: 12 @39502 has 28 MA's), (Start: 29 @39379 has 115 MA's), (Start: 41 @39328 has 29 MA's), (Start: 44 @39316 has 4 MA's), (58, 39235), (63, 39187), (68, 39166), (69, 39148), (79, 39088), (87, 39022), (91, 38989), (95, 38971), (103, 38935), (110, 38905), (111, 38902),



Gene: MyraDee\_53 Start: 35516, Stop: 34857, Start Num: 9

Candidate Starts for MyraDee\_53:

(Start: 9 @35516 has 573 MA's), (19, 35450), (Start: 21 @35423 has 22 MA's), (Start: 29 @35381 has 115 MA's), (Start: 37 @35357 has 23 MA's), (Start: 41 @35330 has 29 MA's), (Start: 53 @35267 has 4 MA's), (60, 35210), (73, 35114), (79, 35084), (91, 34985), (99, 34955), (108, 34913), (117, 34874),

Gene: Myxus\_59 Start: 38686, Stop: 38225, Start Num: 41

Candidate Starts for Myxus\_59:

(Start: 9 @38854 has 573 MA's), (Start: 21 @38761 has 22 MA's), (Start: 26 @38737 has 3 MA's), (Start: 37 @38713 has 23 MA's), (Start: 41 @38686 has 29 MA's), (Start: 45 @38671 has 1 MA's), (60, 38575), (61, 38569), (67, 38530), (69, 38509), (80, 38443), (87, 38383), (91, 38350), (103, 38296),

Gene: NEHalo\_53 Start: 39290, Stop: 38643, Start Num: 12

Candidate Starts for NEHalo\_53:

(Start: 12 @39290 has 28 MA's), (Start: 29 @39167 has 115 MA's), (Start: 41 @39116 has 29 MA's), (Start: 44 @39104 has 4 MA's), (Start: 52 @39056 has 1 MA's), (73, 38906), (87, 38810), (91, 38777), (95, 38759), (103, 38723), (110, 38690), (111, 38687),

Gene: NaSiaTalie\_59 Start: 38751, Stop: 38119, Start Num: 9

Candidate Starts for NaSiaTalie\_59:

(Start: 9 @38751 has 573 MA's), (Start: 21 @38658 has 22 MA's), (Start: 37 @38604 has 23 MA's), (Start: 47 @38547 has 1 MA's), (57, 38493), (60, 38469), (61, 38463), (69, 38403), (79, 38343), (82, 38322), (87, 38277), (91, 38244), (103, 38190),

Gene: Nabi\_40 Start: 28695, Stop: 29360, Start Num: 7

Candidate Starts for Nabi\_40:

(Start: 7 @28695 has 37 MA's), (Start: 9 @28710 has 573 MA's), (11, 28713), (Start: 37 @28854 has 23 MA's), (Start: 53 @28938 has 4 MA's), (60, 28995), (61, 29001), (63, 29022), (73, 29091), (74, 29094), (76, 29103), (78, 29112), (79, 29121), (84, 29166), (87, 29187), (102, 29268), (107, 29289), (117, 29337),

Gene: Naca\_54 Start: 38823, Stop: 38254, Start Num: 21

Candidate Starts for Naca\_54:

(Start: 9 @38916 has 573 MA's), (Start: 21 @38823 has 22 MA's), (Start: 25 @38805 has 1 MA's), (Start: 33 @38763 has 2 MA's), (Start: 37 @38751 has 23 MA's), (Start: 41 @38724 has 29 MA's), (Start: 44 @38712 has 4 MA's), (Start: 45 @38709 has 1 MA's), (69, 38547), (80, 38481), (81, 38472), (83, 38451), (87, 38421), (89, 38415), (91, 38388), (95, 38370), (101, 38343), (103, 38334), (108, 38316), (110, 38304), (111, 38301),

Gene: Naiad\_47 Start: 35293, Stop: 34634, Start Num: 9

Candidate Starts for Naiad\_47:

(Start: 9 @35293 has 573 MA's), (Start: 26 @35170 has 3 MA's), (Start: 37 @35134 has 23 MA's), (Start: 41 @35107 has 29 MA's), (Start: 47 @35077 has 1 MA's), (Start: 52 @35047 has 1 MA's), (Start: 53 @35044 has 4 MA's), (54, 35038), (60, 34987), (67, 34942), (69, 34921), (79, 34861), (80, 34855), (108, 34690), (111, 34675),

Gene: Naira\_57 Start: 40980, Stop: 40402, Start Num: 20

Candidate Starts for Naira\_57:

(Start: 20 @40980 has 38 MA's), (Start: 29 @40923 has 115 MA's), (Start: 37 @40899 has 23 MA's), (39, 40887), (Start: 41 @40872 has 29 MA's), (Start: 44 @40860 has 4 MA's), (Start: 52 @40812 has 1 MA's), (67, 40713), (73, 40662), (87, 40566), (91, 40533), (95, 40515), (103, 40479), (110, 40449),

Gene: Naji\_61 Start: 38901, Stop: 38269, Start Num: 9

Candidate Starts for Naji\_61:

(Start: 9 @38901 has 573 MA's), (Start: 21 @38808 has 22 MA's), (Start: 37 @38754 has 23 MA's), (Start: 41 @38727 has 29 MA's), (Start: 47 @38697 has 1 MA's), (60, 38619), (61, 38613), (69, 38553), (82, 38472), (87, 38427), (91, 38394), (95, 38376), (103, 38340),

Gene: Nancinator\_48 Start: 35222, Stop: 34563, Start Num: 9

Candidate Starts for Nancinator\_48:

(Start: 9 @35222 has 573 MA's), (Start: 26 @35099 has 3 MA's), (Start: 37 @35063 has 23 MA's), (Start: 41 @35036 has 29 MA's), (Start: 47 @35006 has 1 MA's), (Start: 52 @34976 has 1 MA's), (Start: 53 @34973 has 4 MA's), (54, 34967), (60, 34916), (67, 34871), (69, 34850), (80, 34784), (108, 34619), (111, 34604),

Gene: Nanodon\_41 Start: 28466, Stop: 29131, Start Num: 7

Candidate Starts for Nanodon\_41:

(Start: 7 @28466 has 37 MA's), (Start: 9 @28481 has 573 MA's), (11, 28484), (Start: 53 @28709 has 4 MA's), (60, 28766), (61, 28772), (63, 28793), (64, 28802), (71, 28838), (73, 28862), (76, 28874), (78, 28883), (79, 28892), (84, 28937), (87, 28958), (102, 29039), (107, 29060), (117, 29108),

Gene: Natosaleda\_47 Start: 35221, Stop: 34562, Start Num: 9

Candidate Starts for Natosaleda\_47:

(Start: 9 @35221 has 573 MA's), (Start: 26 @35098 has 3 MA's), (Start: 37 @35062 has 23 MA's), (Start: 41 @35035 has 29 MA's), (Start: 47 @35005 has 1 MA's), (Start: 52 @34975 has 1 MA's), (Start: 53 @34972 has 4 MA's), (54, 34966), (60, 34915), (67, 34870), (69, 34849), (80, 34783), (108, 34618), (111, 34603),

Gene: NearlyHeadless\_59 Start: 37980, Stop: 37327, Start Num: 9

Candidate Starts for NearlyHeadless\_59:

(Start: 9 @37980 has 573 MA's), (Start: 21 @37887 has 22 MA's), (Start: 33 @37827 has 2 MA's), (Start: 37 @37815 has 23 MA's), (Start: 41 @37788 has 29 MA's), (51, 37731), (60, 37680), (61, 37674), (82, 37533), (83, 37518), (87, 37488), (91, 37455), (108, 37383), (109, 37374), (111, 37368), (117, 37344),

Gene: Nebs\_56 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Nebs\_56:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Nebulosus\_64 Start: 38277, Stop: 37645, Start Num: 9

Candidate Starts for Nebulosus\_64:

(Start: 9 @38277 has 573 MA's), (Start: 13 @38259 has 45 MA's), (Start: 21 @38184 has 22 MA's), (Start: 41 @38106 has 29 MA's), (Start: 45 @38091 has 1 MA's), (Start: 47 @38076 has 1 MA's), (66, 37956), (67, 37953), (78, 37881), (82, 37851), (91, 37773), (103, 37719),

Gene: Nedarya\_62 Start: 38254, Stop: 37628, Start Num: 10

Candidate Starts for Nedarya\_62:

(Start: 10 @38254 has 2 MA's), (Start: 21 @38164 has 22 MA's), (Start: 37 @38116 has 23 MA's), (Start: 41 @38089 has 29 MA's), (Start: 45 @38074 has 1 MA's), (Start: 47 @38059 has 1 MA's), (61, 37975), (67, 37936), (82, 37834), (91, 37756), (95, 37738), (103, 37702),

Gene: Neeharika16\_59 Start: 37178, Stop: 36546, Start Num: 9

Candidate Starts for Neeharika16\_59:

(Start: 9 @37178 has 573 MA's), (Start: 21 @37085 has 22 MA's), (Start: 37 @37031 has 23 MA's), (Start: 47 @36974 has 1 MA's), (60, 36896), (69, 36830), (82, 36749), (87, 36704), (91, 36671), (95, 36653), (103, 36617), (110, 36587), (111, 36584),

Gene: Nemo27\_55 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for Nemo27\_55:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: Nerdos\_38 Start: 27974, Stop: 28480, Start Num: 37

Candidate Starts for Nerdos\_38:

(Start: 7 @27815 has 37 MA's), (Start: 9 @27830 has 573 MA's), (11, 27833), (Start: 37 @27974 has 23 MA's), (Start: 53 @28058 has 4 MA's), (60, 28115), (61, 28121), (63, 28142), (64, 28151), (71, 28187), (73, 28211), (76, 28223), (78, 28232), (79, 28241), (84, 28286), (102, 28388), (107, 28409), (117, 28457),

Gene: Nerujay\_57 Start: 39805, Stop: 39284, Start Num: 29

Candidate Starts for Nerujay\_57:

(Start: 29 @39805 has 115 MA's), (Start: 37 @39781 has 23 MA's), (Start: 41 @39754 has 29 MA's), (Start: 44 @39742 has 4 MA's), (Start: 52 @39694 has 1 MA's), (67, 39595), (73, 39544), (87, 39448), (91, 39415), (95, 39397), (103, 39361), (110, 39331),

Gene: Newrala\_60 Start: 37720, Stop: 37088, Start Num: 9

Candidate Starts for Newrala\_60:

(Start: 9 @37720 has 573 MA's), (Start: 21 @37627 has 22 MA's), (Start: 37 @37573 has 23 MA's), (Start: 47 @37516 has 1 MA's), (60, 37438), (69, 37372), (82, 37291), (87, 37246), (91, 37213), (95, 37195), (103, 37159), (110, 37129), (111, 37126),

Gene: Nhonho\_54 Start: 40151, Stop: 39630, Start Num: 29

Candidate Starts for Nhonho\_54:

(Start: 29 @40151 has 115 MA's), (Start: 37 @40127 has 23 MA's), (Start: 41 @40100 has 29 MA's), (Start: 44 @40088 has 4 MA's), (Start: 52 @40040 has 1 MA's), (73, 39890), (87, 39794), (91, 39761), (95, 39743), (103, 39707), (110, 39677),

Gene: NicoleTera\_57 Start: 38899, Stop: 38414, Start Num: 37

Candidate Starts for NicoleTera\_57:

(Start: 21 @38953 has 22 MA's), (Start: 37 @38899 has 23 MA's), (Start: 41 @38872 has 29 MA's), (Start: 47 @38842 has 1 MA's), (60, 38764), (61, 38758), (69, 38698), (80, 38632), (87, 38572), (91, 38539), (95, 38521), (103, 38485), (110, 38455),

Gene: Nishikigoi\_41 Start: 29074, Stop: 29736, Start Num: 6

Candidate Starts for Nishikigoi\_41:

(3, 28807), (Start: 6 @29074 has 32 MA's), (15, 29122), (22, 29185), (Start: 43 @29275 has 1 MA's), (Start: 53 @29320 has 4 MA's), (63, 29404), (82, 29524), (84, 29548), (87, 29569), (102, 29650), (107, 29668), (109, 29683), (117, 29716),

Gene: Niza\_57 Start: 40756, Stop: 40286, Start Num: 41

Candidate Starts for Niza\_57:

(Start: 12 @40930 has 28 MA's), (Start: 29 @40807 has 115 MA's), (Start: 41 @40756 has 29 MA's), (Start: 44 @40744 has 4 MA's), (58, 40663), (63, 40615), (68, 40594), (69, 40576), (79, 40516), (87,

40450), (91, 40417), (95, 40399), (103, 40363), (110, 40333),

Gene: Noella\_57 Start: 38515, Stop: 37853, Start Num: 9

Candidate Starts for Noella\_57:

(Start: 9 @38515 has 573 MA's), (Start: 21 @38422 has 22 MA's), (Start: 24 @38407 has 2 MA's), (Start: 33 @38368 has 2 MA's), (Start: 37 @38356 has 23 MA's), (Start: 41 @38329 has 29 MA's), (60, 38209), (68, 38161), (76, 38101), (79, 38083), (80, 38077), (82, 38062), (83, 38047), (103, 37930), (108, 37912),

Gene: Noelle\_55 Start: 38414, Stop: 37755, Start Num: 9

Candidate Starts for Noelle\_55:

(Start: 9 @38414 has 573 MA's), (Start: 21 @38321 has 22 MA's), (Start: 25 @38303 has 1 MA's), (Start: 33 @38267 has 2 MA's), (Start: 37 @38255 has 23 MA's), (Start: 41 @38228 has 29 MA's), (Start: 45 @38213 has 1 MA's), (60, 38108), (79, 37982), (80, 37976), (82, 37961), (83, 37946), (95, 37865), (101, 37838), (103, 37829), (119, 37763),

Gene: Norbert\_56 Start: 38514, Stop: 37852, Start Num: 9

Candidate Starts for Norbert\_56:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: NorthStar\_54 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for NorthStar\_54:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Norz\_56 Start: 40533, Stop: 39952, Start Num: 20

Candidate Starts for Norz\_56:

(Start: 20 @40533 has 38 MA's), (Start: 29 @40476 has 115 MA's), (Start: 37 @40452 has 23 MA's), (Start: 41 @40425 has 29 MA's), (Start: 44 @40413 has 4 MA's), (Start: 52 @40365 has 1 MA's), (73, 40215), (87, 40119), (91, 40086), (95, 40068), (103, 40032), (110, 39999), (111, 39996),

Gene: NotAPhaseMom\_55 Start: 38143, Stop: 37484, Start Num: 9

Candidate Starts for NotAPhaseMom\_55:

(Start: 9 @38143 has 573 MA's), (Start: 21 @38050 has 22 MA's), (Start: 25 @38032 has 1 MA's), (Start: 33 @37996 has 2 MA's), (Start: 37 @37984 has 23 MA's), (Start: 41 @37957 has 29 MA's), (Start: 45 @37942 has 1 MA's), (60, 37837), (79, 37711), (80, 37705), (82, 37690), (83, 37675), (95, 37594), (101, 37567), (103, 37558), (119, 37492),

Gene: NothingSpecial\_57 Start: 39439, Stop: 38807, Start Num: 9

Candidate Starts for NothingSpecial\_57:

(Start: 9 @39439 has 573 MA's), (Start: 21 @39346 has 22 MA's), (Start: 37 @39292 has 23 MA's), (Start: 41 @39265 has 29 MA's), (Start: 47 @39235 has 1 MA's), (60, 39157), (61, 39151), (69, 39091), (79, 39031), (82, 39010), (103, 38878), (110, 38848),

Gene: Nyxis\_55 Start: 38029, Stop: 37370, Start Num: 9

Candidate Starts for Nyxis\_55:

(Start: 9 @38029 has 573 MA's), (Start: 21 @37936 has 22 MA's), (Start: 25 @37918 has 1 MA's), (Start: 33 @37882 has 2 MA's), (Start: 37 @37870 has 23 MA's), (Start: 41 @37843 has 29 MA's),

(Start: 45 @37828 has 1 MA's), (60, 37723), (79, 37597), (80, 37591), (82, 37576), (83, 37561), (95, 37480), (101, 37453), (103, 37444), (119, 37378),

Gene: OKCentral2016\_55 Start: 37747, Stop: 37088, Start Num: 9

Candidate Starts for OKCentral2016\_55:

(Start: 9 @37747 has 573 MA's), (Start: 21 @37654 has 22 MA's), (Start: 37 @37588 has 23 MA's), (Start: 41 @37561 has 29 MA's), (Start: 53 @37498 has 4 MA's), (60, 37441), (68, 37393), (76, 37333), (79, 37315), (80, 37309), (82, 37294), (83, 37279), (101, 37171), (103, 37162), (108, 37144), (110, 37132), (119, 37096),

Gene: OKaNui\_55 Start: 38189, Stop: 37530, Start Num: 9

Candidate Starts for OKaNui\_55:

(Start: 9 @38189 has 573 MA's), (Start: 21 @38096 has 22 MA's), (Start: 25 @38078 has 1 MA's), (Start: 33 @38042 has 2 MA's), (Start: 37 @38030 has 23 MA's), (Start: 41 @38003 has 29 MA's), (Start: 45 @37988 has 1 MA's), (60, 37883), (79, 37757), (80, 37751), (82, 37736), (83, 37721), (95, 37640), (101, 37613), (103, 37604), (119, 37538),

Gene: Obama12\_56 Start: 38526, Stop: 37867, Start Num: 9

Candidate Starts for Obama12\_56:

(Start: 9 @38526 has 573 MA's), (Start: 21 @38433 has 22 MA's), (Start: 33 @38379 has 2 MA's), (Start: 37 @38367 has 23 MA's), (Start: 41 @38340 has 29 MA's), (Start: 45 @38325 has 1 MA's), (60, 38220), (79, 38094), (82, 38073), (83, 38058), (95, 37977), (101, 37950), (103, 37941), (119, 37875),

Gene: Odin\_57 Start: 37960, Stop: 37328, Start Num: 9

Candidate Starts for Odin\_57:

(Start: 9 @37960 has 573 MA's), (Start: 21 @37867 has 22 MA's), (Start: 37 @37813 has 23 MA's), (Start: 41 @37786 has 29 MA's), (Start: 47 @37756 has 1 MA's), (60, 37678), (81, 37537), (82, 37531), (83, 37516), (87, 37486), (90, 37477), (91, 37453), (95, 37435), (103, 37399),

Gene: Ohfah\_56 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Ohfah\_56:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Ohno789\_56 Start: 39868, Stop: 39224, Start Num: 12

Candidate Starts for Ohno789\_56:

(Start: 12 @39868 has 28 MA's), (Start: 29 @39745 has 115 MA's), (Start: 41 @39694 has 29 MA's), (Start: 44 @39682 has 4 MA's), (63, 39553), (68, 39532), (69, 39514), (87, 39388), (91, 39355), (95, 39337), (103, 39301), (110, 39271),

Gene: OlanP\_61 Start: 38957, Stop: 38298, Start Num: 9

Candidate Starts for OlanP\_61:

(Start: 9 @38957 has 573 MA's), (Start: 21 @38864 has 22 MA's), (Start: 33 @38810 has 2 MA's), (Start: 37 @38798 has 23 MA's), (Start: 41 @38771 has 29 MA's), (60, 38651), (76, 38543), (79, 38525), (80, 38519), (91, 38426), (95, 38408), (103, 38372), (108, 38354), (110, 38342),

Gene: Olicious\_58 Start: 30975, Stop: 30343, Start Num: 9

Candidate Starts for Olicious\_58:

(Start: 9 @30975 has 573 MA's), (Start: 13 @30957 has 45 MA's), (15, 30945), (22, 30885), (Start: 47 @30777 has 1 MA's), (48, 30759), (50, 30753), (80, 30564), (87, 30504),

Gene: Oliynyk\_40 Start: 28177, Stop: 28842, Start Num: 7

Candidate Starts for Oliynyk\_40:

(Start: 7 @28177 has 37 MA's), (Start: 9 @28192 has 573 MA's), (11, 28195), (Start: 37 @28336 has 23 MA's), (Start: 53 @28420 has 4 MA's), (60, 28477), (61, 28483), (63, 28504), (64, 28513), (71, 28549), (73, 28573), (76, 28585), (77, 28588), (78, 28594), (79, 28603), (84, 28648), (87, 28669), (102, 28750), (107, 28771), (117, 28819),

Gene: Ollie\_62 Start: 38769, Stop: 38110, Start Num: 9

Candidate Starts for Ollie\_62:

(Start: 9 @38769 has 573 MA's), (Start: 21 @38676 has 22 MA's), (Start: 33 @38622 has 2 MA's), (Start: 37 @38610 has 23 MA's), (Start: 41 @38583 has 29 MA's), (60, 38463), (76, 38355), (79, 38337), (80, 38331), (95, 38220), (103, 38184), (108, 38166), (110, 38154),

Gene: Omar\_42 Start: 29302, Stop: 29964, Start Num: 6

Candidate Starts for Omar\_42:

(2, 28975), (3, 29032), (Start: 6 @29302 has 32 MA's), (15, 29350), (22, 29413), (Start: 43 @29503 has 1 MA's), (63, 29632), (82, 29752), (84, 29776), (87, 29797), (102, 29878), (109, 29911),

Gene: Onglai\_57 Start: 37078, Stop: 36566, Start Num: 26

Candidate Starts for Onglai\_57:

(Start: 9 @37195 has 573 MA's), (Start: 21 @37102 has 22 MA's), (Start: 26 @37078 has 3 MA's), (Start: 37 @37054 has 23 MA's), (Start: 41 @37027 has 29 MA's), (Start: 45 @37012 has 1 MA's), (60, 36916), (61, 36910), (67, 36871), (69, 36850), (80, 36784), (87, 36724), (91, 36691), (103, 36637), (110, 36607),

Gene: Oofda\_67 Start: 38387, Stop: 37848, Start Num: 21

Candidate Starts for Oofda\_67:

(Start: 9 @38480 has 573 MA's), (Start: 13 @38462 has 45 MA's), (Start: 21 @38387 has 22 MA's), (Start: 41 @38309 has 29 MA's), (Start: 45 @38294 has 1 MA's), (Start: 47 @38279 has 1 MA's), (66, 38159), (67, 38156), (78, 38084), (80, 38069), (82, 38054), (91, 37976), (103, 37922),

Gene: Oogway\_54 Start: 39161, Stop: 38640, Start Num: 29

Candidate Starts for Oogway\_54:

(Start: 29 @39161 has 115 MA's), (Start: 37 @39137 has 23 MA's), (Start: 41 @39110 has 29 MA's), (Start: 44 @39098 has 4 MA's), (Start: 52 @39050 has 1 MA's), (67, 38951), (73, 38900), (87, 38804), (88, 38801), (91, 38771), (95, 38753), (96, 38750), (103, 38717), (110, 38687), (111, 38684),

Gene: Orange\_59 Start: 38209, Stop: 37562, Start Num: 9

Candidate Starts for Orange\_59:

(Start: 9 @38209 has 573 MA's), (Start: 21 @38116 has 22 MA's), (Start: 37 @38062 has 23 MA's), (Start: 41 @38035 has 29 MA's), (Start: 47 @38005 has 1 MA's), (61, 37909), (69, 37849), (80, 37783), (82, 37768), (87, 37723), (90, 37714), (91, 37690), (103, 37636), (111, 37603),

Gene: Ouroboros\_30 Start: 21354, Stop: 20683, Start Num: 13

Candidate Starts for Ouroboros\_30:

(Start: 13 @21354 has 45 MA's), (Start: 47 @21141 has 1 MA's), (Start: 53 @21102 has 4 MA's), (64, 21009), (67, 21000), (69, 20979), (73, 20949), (93, 20814), (101, 20772), (113, 20715), (118, 20694),

Gene: Ozzie\_39 Start: 27815, Stop: 28465, Start Num: 9

Candidate Starts for Ozzie\_39:

(Start: 7 @27800 has 37 MA's), (Start: 9 @27815 has 573 MA's), (11, 27818), (Start: 37 @27959 has 23 MA's), (Start: 53 @28043 has 4 MA's), (60, 28100), (61, 28106), (63, 28127), (64, 28136), (71, 28172), (73, 28196), (76, 28208), (78, 28217), (79, 28226), (84, 28271), (102, 28373), (107, 28394),

(117, 28442),

Gene: OzzyJ\_40 Start: 28180, Stop: 28845, Start Num: 7

Candidate Starts for OzzyJ\_40:

(Start: 7 @28180 has 37 MA's), (Start: 9 @28195 has 573 MA's), (11, 28198), (Start: 37 @28339 has 23 MA's), (Start: 53 @28423 has 4 MA's), (60, 28480), (61, 28486), (63, 28507), (71, 28552), (73, 28576), (76, 28588), (78, 28597), (79, 28606), (84, 28651), (87, 28672), (102, 28753), (107, 28774), (117, 28822),

Gene: P1.1\_30 Start: 21372, Stop: 20701, Start Num: 13

Candidate Starts for P1.1\_30:

(Start: 13 @21372 has 45 MA's), (Start: 47 @21159 has 1 MA's), (Start: 53 @21120 has 4 MA's), (60, 21063), (64, 21027), (67, 21018), (69, 20997), (73, 20967), (93, 20832), (101, 20790), (113, 20733), (118, 20712),

Gene: P100.1\_30 Start: 21409, Stop: 20738, Start Num: 13

Candidate Starts for P100.1\_30:

(Start: 13 @21409 has 45 MA's), (Start: 47 @21196 has 1 MA's), (Start: 53 @21157 has 4 MA's), (60, 21100), (64, 21064), (67, 21055), (69, 21034), (73, 21004), (93, 20869), (101, 20827), (113, 20770), (118, 20749),

Gene: P100A\_30 Start: 21359, Stop: 20688, Start Num: 13

Candidate Starts for P100A\_30:

(Start: 13 @21359 has 45 MA's), (Start: 47 @21146 has 1 MA's), (60, 21050), (64, 21014), (67, 21005), (69, 20984), (73, 20954), (93, 20819), (101, 20777), (106, 20756), (113, 20720), (118, 20699),

Gene: P100D\_30 Start: 21352, Stop: 20681, Start Num: 13

Candidate Starts for P100D\_30:

(Start: 13 @21352 has 45 MA's), (Start: 47 @21139 has 1 MA's), (Start: 53 @21100 has 4 MA's), (64, 21007), (67, 20998), (69, 20977), (73, 20947), (93, 20812), (101, 20770), (113, 20713), (118, 20692),

Gene: P101A\_30 Start: 21378, Stop: 20707, Start Num: 13

Candidate Starts for P101A\_30:

(Start: 13 @21378 has 45 MA's), (Start: 47 @21165 has 1 MA's), (Start: 53 @21126 has 4 MA's), (60, 21069), (64, 21033), (67, 21024), (69, 21003), (73, 20973), (93, 20838), (101, 20796), (113, 20739), (118, 20718),

Gene: P104A\_30 Start: 21147, Stop: 20476, Start Num: 13

Candidate Starts for P104A\_30:

(Start: 13 @21147 has 45 MA's), (Start: 47 @20934 has 1 MA's), (Start: 53 @20895 has 4 MA's), (60, 20838), (64, 20802), (67, 20793), (69, 20772), (73, 20742), (93, 20607), (101, 20565), (113, 20508), (118, 20487),

Gene: P104B\_30 Start: 21342, Stop: 20671, Start Num: 13

Candidate Starts for P104B\_30:

(Start: 13 @21342 has 45 MA's), (Start: 47 @21129 has 1 MA's), (Start: 53 @21090 has 4 MA's), (60, 21033), (64, 20997), (67, 20988), (69, 20967), (73, 20937), (93, 20802), (113, 20703), (118, 20682),

Gene: P105\_30 Start: 21007, Stop: 20336, Start Num: 13

Candidate Starts for P105\_30:

(Start: 13 @21007 has 45 MA's), (Start: 47 @20794 has 1 MA's), (Start: 53 @20755 has 4 MA's), (64, 20662), (67, 20653), (69, 20632), (73, 20602), (93, 20467), (113, 20368), (118, 20347),

Gene: P106A\_30 Start: 21433, Stop: 20762, Start Num: 13

Candidate Starts for P106A\_30:

(Start: 13 @21433 has 45 MA's), (Start: 47 @21220 has 1 MA's), (Start: 53 @21181 has 4 MA's), (64, 21088), (67, 21079), (73, 21028), (93, 20893), (101, 20851), (113, 20794), (118, 20773),

Gene: P106C\_31 Start: 21371, Stop: 20700, Start Num: 13

Candidate Starts for P106C\_31:

(Start: 13 @21371 has 45 MA's), (Start: 47 @21158 has 1 MA's), (Start: 53 @21119 has 4 MA's), (64, 21026), (67, 21017), (73, 20966), (93, 20831), (101, 20789), (113, 20732), (118, 20711),

Gene: P106I\_30 Start: 21200, Stop: 20529, Start Num: 13

Candidate Starts for P106I\_30:

(Start: 13 @21200 has 45 MA's), (Start: 47 @20987 has 1 MA's), (Start: 53 @20948 has 4 MA's), (64, 20855), (67, 20846), (73, 20795), (93, 20660), (101, 20618), (113, 20561), (118, 20540),

Gene: P106L\_30 Start: 21371, Stop: 20700, Start Num: 13

Candidate Starts for P106L\_30:

(Start: 13 @21371 has 45 MA's), (Start: 47 @21158 has 1 MA's), (Start: 53 @21119 has 4 MA's), (64, 21026), (67, 21017), (73, 20966), (93, 20831), (101, 20789), (113, 20732), (118, 20711),

Gene: P106M\_30 Start: 21371, Stop: 20700, Start Num: 13

Candidate Starts for P106M\_30:

(Start: 13 @21371 has 45 MA's), (Start: 47 @21158 has 1 MA's), (Start: 53 @21119 has 4 MA's), (64, 21026), (67, 21017), (73, 20966), (93, 20831), (101, 20789), (113, 20732), (118, 20711),

Gene: P107A\_30 Start: 21387, Stop: 20716, Start Num: 13

Candidate Starts for P107A\_30:

(Start: 13 @21387 has 45 MA's), (Start: 47 @21174 has 1 MA's), (Start: 53 @21135 has 4 MA's), (64, 21042), (67, 21033), (69, 21012), (73, 20982), (93, 20847), (113, 20748), (118, 20727),

Gene: P107C\_30 Start: 21324, Stop: 20653, Start Num: 13

Candidate Starts for P107C\_30:

(Start: 13 @21324 has 45 MA's), (Start: 53 @21072 has 4 MA's), (64, 20979), (67, 20970), (69, 20949), (75, 20913), (93, 20784), (101, 20742), (113, 20685), (118, 20664),

Gene: P108C\_30 Start: 21338, Stop: 20667, Start Num: 13

Candidate Starts for P108C\_30:

(Start: 13 @21338 has 45 MA's), (Start: 47 @21125 has 1 MA's), (Start: 53 @21086 has 4 MA's), (64, 20993), (67, 20984), (69, 20963), (73, 20933), (93, 20798), (101, 20756), (113, 20699), (118, 20678),

Gene: P14.4\_30 Start: 21340, Stop: 20669, Start Num: 13

Candidate Starts for P14.4\_30:

(Start: 13 @21340 has 45 MA's), (Start: 47 @21127 has 1 MA's), (Start: 53 @21088 has 4 MA's), (64, 20995), (67, 20986), (69, 20965), (73, 20935), (93, 20800), (101, 20758), (113, 20701), (118, 20680),

Gene: P28Green\_63 Start: 38808, Stop: 38242, Start Num: 21

Candidate Starts for P28Green\_63:

(Start: 9 @38901 has 573 MA's), (Start: 21 @38808 has 22 MA's), (Start: 33 @38754 has 2 MA's), (Start: 37 @38742 has 23 MA's), (Start: 41 @38715 has 29 MA's), (60, 38595), (76, 38487), (79, 38469), (80, 38463), (95, 38352), (103, 38316), (108, 38298), (110, 38286),

Gene: P9.1\_30 Start: 21368, Stop: 20697, Start Num: 13

Candidate Starts for P9.1\_30:



(Start: 13 @21368 has 45 MA's), (Start: 47 @21155 has 1 MA's), (Start: 53 @21116 has 4 MA's), (64, 21023), (67, 21014), (73, 20963), (93, 20828), (101, 20786), (113, 20729), (118, 20708),

Gene: PA6\_31 Start: 21332, Stop: 20661, Start Num: 13

Candidate Starts for PA6\_31:

(Start: 13 @21332 has 45 MA's), (Start: 47 @21119 has 1 MA's), (Start: 53 @21080 has 4 MA's), (64, 20987), (67, 20978), (69, 20957), (73, 20927), (93, 20792), (101, 20750), (113, 20693), (118, 20672),

Gene: PAD20\_31 Start: 21112, Stop: 20441, Start Num: 13

Candidate Starts for PAD20\_31:

(Start: 13 @21112 has 45 MA's), (Start: 47 @20899 has 1 MA's), (Start: 53 @20860 has 4 MA's), (60, 20803), (64, 20767), (67, 20758), (69, 20737), (73, 20707), (93, 20572), (101, 20530), (113, 20473), (118, 20452),

Gene: PAS50\_31 Start: 21277, Stop: 20609, Start Num: 13

Candidate Starts for PAS50\_31:

(Start: 13 @21277 has 45 MA's), (Start: 47 @21064 has 1 MA's), (Start: 53 @21025 has 4 MA's), (60, 20968), (64, 20932), (67, 20923), (69, 20902), (73, 20872), (93, 20740), (101, 20698), (104, 20686), (105, 20683), (113, 20641), (118, 20620),

Gene: PGHhamlin\_64 Start: 38890, Stop: 38231, Start Num: 9

Candidate Starts for PGHhamlin\_64:

(Start: 9 @38890 has 573 MA's), (Start: 21 @38797 has 22 MA's), (Start: 33 @38743 has 2 MA's), (Start: 37 @38731 has 23 MA's), (Start: 41 @38704 has 29 MA's), (60, 38584), (76, 38476), (79, 38458), (80, 38452), (95, 38341), (103, 38305), (108, 38287), (110, 38275),

Gene: PHL010M04\_30 Start: 21406, Stop: 20681, Start Num: 4

Candidate Starts for PHL010M04\_30:

(Start: 4 @21406 has 1 MA's), (5, 21403), (Start: 13 @21352 has 45 MA's), (Start: 47 @21139 has 1 MA's), (Start: 53 @21100 has 4 MA's), (64, 21007), (67, 20998), (69, 20977), (73, 20947), (93, 20812), (101, 20770), (113, 20713), (118, 20692),

Gene: PHL037M02\_30 Start: 21390, Stop: 20665, Start Num: 4

Candidate Starts for PHL037M02\_30:

(Start: 4 @21390 has 1 MA's), (Start: 13 @21336 has 45 MA's), (Start: 47 @21123 has 1 MA's), (Start: 53 @21084 has 4 MA's), (64, 20991), (67, 20982), (69, 20961), (73, 20931), (93, 20796), (101, 20754), (113, 20697), (118, 20676),

Gene: PHL060L00\_30 Start: 21182, Stop: 20511, Start Num: 13

Candidate Starts for PHL060L00\_30:

(Start: 13 @21182 has 45 MA's), (Start: 47 @20969 has 1 MA's), (Start: 53 @20930 has 4 MA's), (64, 20837), (67, 20828), (73, 20777), (93, 20642), (101, 20600), (113, 20543), (118, 20522),

Gene: PHL067M10\_30 Start: 21302, Stop: 20631, Start Num: 13

Candidate Starts for PHL067M10\_30:

(Start: 13 @21302 has 45 MA's), (Start: 47 @21089 has 1 MA's), (Start: 53 @21050 has 4 MA's), (60, 20993), (64, 20957), (67, 20948), (69, 20927), (73, 20897), (93, 20762), (113, 20663), (118, 20642),

Gene: PHL071N05\_30 Start: 21361, Stop: 20690, Start Num: 13

Candidate Starts for PHL071N05\_30:

(Start: 13 @21361 has 45 MA's), (Start: 47 @21148 has 1 MA's), (Start: 53 @21109 has 4 MA's), (64, 21016), (67, 21007), (69, 20986), (73, 20956), (93, 20821), (101, 20779), (113, 20722), (118, 20701),

Gene: PHL111M01\_30 Start: 21059, Stop: 20388, Start Num: 13

Candidate Starts for PHL111M01\_30:

(Start: 13 @21059 has 45 MA's), (Start: 47 @20846 has 1 MA's), (Start: 53 @20807 has 4 MA's), (64, 20714), (67, 20705), (69, 20684), (73, 20654), (93, 20519), (113, 20420), (118, 20399),

Gene: PHL112N00\_30 Start: 21369, Stop: 20698, Start Num: 13

Candidate Starts for PHL112N00\_30:

(Start: 13 @21369 has 45 MA's), (Start: 47 @21156 has 1 MA's), (Start: 53 @21117 has 4 MA's), (60, 21060), (64, 21024), (67, 21015), (69, 20994), (73, 20964), (93, 20829), (101, 20787), (113, 20730), (118, 20709),

Gene: PHL113M01\_30 Start: 21108, Stop: 20437, Start Num: 13

Candidate Starts for PHL113M01\_30:

(Start: 13 @21108 has 45 MA's), (Start: 47 @20895 has 1 MA's), (Start: 53 @20856 has 4 MA's), (64, 20763), (67, 20754), (69, 20733), (73, 20703), (93, 20568), (113, 20469), (118, 20448),

Gene: PHL114L00\_30 Start: 21324, Stop: 20653, Start Num: 13

Candidate Starts for PHL114L00\_30:

(Start: 13 @21324 has 45 MA's), (Start: 47 @21111 has 1 MA's), (Start: 53 @21072 has 4 MA's), (60, 21015), (64, 20979), (67, 20970), (69, 20949), (73, 20919), (93, 20784), (101, 20742), (113, 20685), (118, 20664),

Gene: PP\_58 Start: 42225, Stop: 41752, Start Num: 41

Candidate Starts for PP\_58:

(Start: 9 @42411 has 573 MA's), (16, 42375), (Start: 21 @42318 has 22 MA's), (27, 42288), (Start: 37 @42252 has 23 MA's), (Start: 41 @42225 has 29 MA's), (Start: 53 @42162 has 4 MA's), (54, 42156), (60, 42105), (80, 41973), (82, 41958), (83, 41943), (87, 41913), (98, 41853), (99, 41850), (101, 41835), (103, 41826), (109, 41799), (110, 41796), (116, 41772), (119, 41760),

Gene: PSullivan\_55 Start: 38239, Stop: 37595, Start Num: 12

Candidate Starts for PSullivan\_55:

(Start: 12 @38239 has 28 MA's), (Start: 29 @38116 has 115 MA's), (Start: 41 @38065 has 29 MA's), (Start: 44 @38053 has 4 MA's), (63, 37924), (68, 37903), (69, 37885), (87, 37759), (88, 37756), (91, 37726), (95, 37708), (103, 37672), (110, 37642),

Gene: Pablito\_39 Start: 28612, Stop: 29271, Start Num: 6

Candidate Starts for Pablito\_39:

(Start: 6 @28612 has 32 MA's), (15, 28660), (22, 28723), (Start: 43 @28813 has 1 MA's), (63, 28942), (82, 29062), (84, 29086), (87, 29107), (102, 29188), (117, 29254),

Gene: PacerPaul\_54 Start: 39512, Stop: 38991, Start Num: 29

Candidate Starts for PacerPaul\_54:

(Start: 29 @39512 has 115 MA's), (Start: 37 @39488 has 23 MA's), (Start: 41 @39461 has 29 MA's), (Start: 44 @39449 has 4 MA's), (Start: 52 @39401 has 1 MA's), (67, 39302), (73, 39251), (87, 39155), (91, 39122), (95, 39104), (103, 39068), (110, 39038),

Gene: PackMan\_58 Start: 38686, Stop: 38225, Start Num: 41

Candidate Starts for PackMan\_58:

(Start: 9 @38854 has 573 MA's), (Start: 21 @38761 has 22 MA's), (Start: 26 @38737 has 3 MA's), (Start: 37 @38713 has 23 MA's), (Start: 41 @38686 has 29 MA's), (Start: 45 @38671 has 1 MA's), (60, 38575), (61, 38569), (67, 38530), (69, 38509), (80, 38443), (87, 38383), (91, 38350), (103, 38296),

Gene: Paedore\_39 Start: 29220, Stop: 29882, Start Num: 6

Candidate Starts for Paedore\_39:

(Start: 6 @29220 has 32 MA's), (15, 29268), (22, 29331), (28, 29361), (Start: 43 @29421 has 1 MA's), (Start: 53 @29466 has 4 MA's), (63, 29550), (64, 29559), (82, 29670), (84, 29694), (87, 29715), (107, 29814), (109, 29829), (115, 29850),

Gene: PainterBoy\_61 Start: 39028, Stop: 38537, Start Num: 37

Candidate Starts for PainterBoy\_61:

(Start: 9 @39175 has 573 MA's), (Start: 21 @39082 has 22 MA's), (Start: 37 @39028 has 23 MA's), (Start: 41 @39001 has 29 MA's), (Start: 45 @38986 has 1 MA's), (Start: 47 @38971 has 1 MA's), (61, 38884), (69, 38824), (76, 38779), (83, 38725), (87, 38695), (95, 38644), (103, 38608),

Gene: Palestino\_54 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Palestino\_54:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Panamaxus\_55 Start: 38406, Stop: 37852, Start Num: 24

Candidate Starts for Panamaxus\_55:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: Paolo\_42 Start: 29646, Stop: 30308, Start Num: 6

Candidate Starts for Paolo\_42:

(Start: 6 @29646 has 32 MA's), (15, 29694), (17, 29709), (19, 29730), (28, 29787), (Start: 43 @29847 has 1 MA's), (63, 29976), (82, 30096), (84, 30120), (115, 30276), (117, 30288),

Gene: Papez\_57 Start: 41106, Stop: 40585, Start Num: 29

Candidate Starts for Papez\_57:

(Start: 29 @41106 has 115 MA's), (Start: 37 @41082 has 23 MA's), (Start: 41 @41055 has 29 MA's), (Start: 44 @41043 has 4 MA's), (Start: 52 @40995 has 1 MA's), (73, 40845), (87, 40749), (91, 40716), (95, 40698), (103, 40662), (110, 40632),

Gene: Paphu\_53 Start: 38516, Stop: 37992, Start Num: 29

Candidate Starts for Paphu\_53:

(Start: 29 @38516 has 115 MA's), (Start: 37 @38492 has 23 MA's), (Start: 41 @38465 has 29 MA's), (Start: 44 @38453 has 4 MA's), (Start: 52 @38405 has 1 MA's), (73, 38255), (87, 38159), (88, 38156), (91, 38126), (95, 38108), (103, 38072), (110, 38039), (111, 38036),

Gene: Paraselene\_52 Start: 39621, Stop: 39097, Start Num: 29

Candidate Starts for Paraselene\_52:

(Start: 29 @39621 has 115 MA's), (Start: 37 @39597 has 23 MA's), (Start: 41 @39570 has 29 MA's), (Start: 44 @39558 has 4 MA's), (Start: 52 @39510 has 1 MA's), (67, 39411), (73, 39360), (87, 39264), (88, 39261), (91, 39231), (95, 39213), (103, 39177), (110, 39144), (111, 39141),

Gene: Pari\_57 Start: 38997, Stop: 38419, Start Num: 20

Candidate Starts for Pari\_57:

(Start: 20 @38997 has 38 MA's), (Start: 29 @38940 has 115 MA's), (Start: 37 @38916 has 23 MA's), (Start: 41 @38889 has 29 MA's), (Start: 44 @38877 has 4 MA's), (Start: 52 @38829 has 1 MA's), (73, 38679), (87, 38583), (88, 38580), (91, 38550), (95, 38532), (103, 38496), (110, 38466),

Gene: Parliament\_54 Start: 39241, Stop: 38720, Start Num: 29

Candidate Starts for Parliament\_54:

(Start: 29 @39241 has 115 MA's), (Start: 37 @39217 has 23 MA's), (Start: 41 @39190 has 29 MA's), (Start: 44 @39178 has 4 MA's), (Start: 52 @39130 has 1 MA's), (67, 39031), (73, 38980), (87, 38884), (91, 38851), (95, 38833), (103, 38797), (110, 38767),

Gene: Partridge\_47 Start: 35578, Stop: 34919, Start Num: 9

Candidate Starts for Partridge\_47:

(Start: 9 @35578 has 573 MA's), (Start: 26 @35455 has 3 MA's), (Start: 37 @35419 has 23 MA's), (Start: 41 @35392 has 29 MA's), (Start: 47 @35362 has 1 MA's), (Start: 52 @35332 has 1 MA's), (Start: 53 @35329 has 4 MA's), (54, 35323), (60, 35272), (67, 35227), (69, 35206), (79, 35146), (80, 35140), (108, 34975), (111, 34960),

Gene: PascalRango\_55 Start: 39459, Stop: 38938, Start Num: 29

Candidate Starts for PascalRango\_55:

(Start: 29 @39459 has 115 MA's), (Start: 37 @39435 has 23 MA's), (Start: 41 @39408 has 29 MA's), (Start: 44 @39396 has 4 MA's), (Start: 52 @39348 has 1 MA's), (67, 39249), (73, 39198), (87, 39102), (91, 39069), (95, 39051), (103, 39015), (110, 38985),

Gene: PattyP\_55 Start: 39696, Stop: 39052, Start Num: 12

Candidate Starts for PattyP\_55:

(Start: 12 @39696 has 28 MA's), (Start: 29 @39573 has 115 MA's), (Start: 41 @39522 has 29 MA's), (Start: 44 @39510 has 4 MA's), (63, 39381), (68, 39360), (69, 39342), (87, 39216), (91, 39183), (95, 39165), (103, 39129), (110, 39099), (111, 39096),

Gene: Pavo\_41 Start: 29874, Stop: 30539, Start Num: 7

Candidate Starts for Pavo\_41:

(Start: 7 @29874 has 37 MA's), (Start: 9 @29889 has 573 MA's), (Start: 53 @30117 has 4 MA's), (60, 30174), (61, 30180), (63, 30201), (64, 30210), (73, 30270), (74, 30273), (76, 30282), (84, 30345), (87, 30366), (102, 30447), (107, 30468),

Gene: Pawn\_62 Start: 38788, Stop: 38129, Start Num: 9

Candidate Starts for Pawn\_62:

(Start: 9 @38788 has 573 MA's), (Start: 21 @38695 has 22 MA's), (Start: 33 @38641 has 2 MA's), (Start: 37 @38629 has 23 MA's), (Start: 41 @38602 has 29 MA's), (60, 38482), (76, 38374), (79, 38356), (80, 38350), (91, 38257), (95, 38239), (103, 38203), (108, 38185), (110, 38173),

Gene: Payneful\_54 Start: 38963, Stop: 38442, Start Num: 29

Candidate Starts for Payneful\_54:

(Start: 29 @38963 has 115 MA's), (Start: 37 @38939 has 23 MA's), (Start: 41 @38912 has 29 MA's), (Start: 44 @38900 has 4 MA's), (Start: 52 @38852 has 1 MA's), (67, 38753), (73, 38702), (87, 38606), (91, 38573), (95, 38555), (103, 38519), (110, 38489),

Gene: PeaceMeal1\_54 Start: 37275, Stop: 36616, Start Num: 9

Candidate Starts for PeaceMeal1\_54:

(Start: 9 @37275 has 573 MA's), (Start: 21 @37182 has 22 MA's), (Start: 37 @37116 has 23 MA's), (Start: 41 @37089 has 29 MA's), (Start: 53 @37026 has 4 MA's), (60, 36969), (68, 36921), (82, 36822), (83, 36807), (101, 36699), (103, 36690), (108, 36672), (110, 36660), (119, 36624),

Gene: Peaches\_54 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for Peaches\_54:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (22, 38042), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: Pelly\_55 Start: 39243, Stop: 38719, Start Num: 29

Candidate Starts for Pelly\_55:

(Start: 29 @39243 has 115 MA's), (Start: 37 @39219 has 23 MA's), (Start: 41 @39192 has 29 MA's), (Start: 44 @39180 has 4 MA's), (Start: 52 @39132 has 1 MA's), (73, 38982), (87, 38886), (88, 38883), (91, 38853), (95, 38835), (103, 38799), (110, 38766), (111, 38763),

Gene: Pembroke\_62 Start: 38899, Stop: 38240, Start Num: 9

Candidate Starts for Pembroke\_62:

(Start: 9 @38899 has 573 MA's), (Start: 21 @38806 has 22 MA's), (Start: 33 @38752 has 2 MA's), (Start: 37 @38740 has 23 MA's), (Start: 41 @38713 has 29 MA's), (60, 38593), (76, 38485), (79, 38467), (80, 38461), (95, 38350), (103, 38314), (108, 38296), (110, 38284),

Gene: Penny1\_63 Start: 38902, Stop: 38243, Start Num: 9

Candidate Starts for Penny1\_63:

(Start: 9 @38902 has 573 MA's), (Start: 21 @38809 has 22 MA's), (Start: 33 @38755 has 2 MA's), (Start: 37 @38743 has 23 MA's), (Start: 41 @38716 has 29 MA's), (60, 38596), (76, 38488), (79, 38470), (80, 38464), (95, 38353), (103, 38317), (108, 38299), (110, 38287),

Gene: Pepe\_51 Start: 37732, Stop: 37211, Start Num: 29

Candidate Starts for Pepe\_51:

(Start: 29 @37732 has 115 MA's), (Start: 37 @37708 has 23 MA's), (Start: 41 @37681 has 29 MA's), (Start: 44 @37669 has 4 MA's), (Start: 52 @37621 has 1 MA's), (73, 37471), (87, 37375), (91, 37342), (95, 37324), (103, 37288), (110, 37258),

Gene: Percastrophe\_58 Start: 30909, Stop: 30277, Start Num: 9

Candidate Starts for Percastrophe\_58:

(Start: 9 @30909 has 573 MA's), (Start: 13 @30891 has 45 MA's), (15, 30879), (22, 30819), (Start: 47 @30711 has 1 MA's), (48, 30693), (50, 30687), (64, 30594), (80, 30498), (87, 30438),

Gene: Perplexer\_54 Start: 38089, Stop: 37430, Start Num: 9

Candidate Starts for Perplexer\_54:

(Start: 9 @38089 has 573 MA's), (Start: 21 @37996 has 22 MA's), (Start: 25 @37978 has 1 MA's), (Start: 33 @37942 has 2 MA's), (Start: 37 @37930 has 23 MA's), (Start: 41 @37903 has 29 MA's), (Start: 45 @37888 has 1 MA's), (60, 37783), (79, 37657), (82, 37636), (83, 37621), (95, 37540), (103, 37504), (119, 37438),

Gene: Perseus\_55 Start: 40221, Stop: 39640, Start Num: 20

Candidate Starts for Perseus\_55:

(Start: 20 @40221 has 38 MA's), (Start: 29 @40164 has 115 MA's), (Start: 37 @40140 has 23 MA's), (Start: 41 @40113 has 29 MA's), (Start: 44 @40101 has 4 MA's), (Start: 52 @40053 has 1 MA's), (67, 39954), (73, 39903), (87, 39807), (91, 39774), (95, 39756), (103, 39720), (110, 39687), (111, 39684),

Gene: PeterPeter\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for PeterPeter\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Petersenfast\_58 Start: 38208, Stop: 37561, Start Num: 9

Candidate Starts for Petersenfast\_58:

(Start: 9 @38208 has 573 MA's), (Start: 21 @38115 has 22 MA's), (Start: 37 @38061 has 23 MA's), (Start: 41 @38034 has 29 MA's), (Start: 47 @38004 has 1 MA's), (61, 37908), (69, 37848), (80, 37782), (82, 37767), (87, 37722), (90, 37713), (91, 37689), (103, 37635), (111, 37602),

Gene: Peterson\_59 Start: 41402, Stop: 40878, Start Num: 29

Candidate Starts for Peterson\_59:

(Start: 29 @41402 has 115 MA's), (Start: 37 @41378 has 23 MA's), (Start: 41 @41351 has 29 MA's), (Start: 44 @41339 has 4 MA's), (Start: 52 @41291 has 1 MA's), (73, 41141), (87, 41045), (88, 41042), (91, 41012), (95, 40994), (103, 40958), (110, 40925), (111, 40922),

Gene: PetiteSangsue\_54 Start: 38092, Stop: 37433, Start Num: 9

Candidate Starts for PetiteSangsue\_54:

(Start: 9 @38092 has 573 MA's), (Start: 21 @37999 has 22 MA's), (Start: 25 @37981 has 1 MA's), (Start: 33 @37945 has 2 MA's), (Start: 37 @37933 has 23 MA's), (Start: 41 @37906 has 29 MA's), (Start: 45 @37891 has 1 MA's), (60, 37786), (79, 37660), (82, 37639), (83, 37624), (95, 37543), (103, 37507), (119, 37441),

Gene: Petruccio\_54 Start: 38665, Stop: 38087, Start Num: 20

Candidate Starts for Petruccio\_54:

(Start: 20 @38665 has 38 MA's), (Start: 29 @38608 has 115 MA's), (Start: 37 @38584 has 23 MA's), (Start: 41 @38557 has 29 MA's), (Start: 44 @38545 has 4 MA's), (Start: 52 @38497 has 1 MA's), (67, 38398), (73, 38347), (87, 38251), (88, 38248), (91, 38218), (95, 38200), (103, 38164), (110, 38134),

Gene: PetterN\_58 Start: 38531, Stop: 37869, Start Num: 9

Candidate Starts for PetterN\_58:

(Start: 9 @38531 has 573 MA's), (Start: 21 @38438 has 22 MA's), (Start: 25 @38420 has 1 MA's), (Start: 33 @38378 has 2 MA's), (Start: 37 @38366 has 23 MA's), (Start: 41 @38339 has 29 MA's), (Start: 44 @38327 has 4 MA's), (Start: 45 @38324 has 1 MA's), (69, 38162), (80, 38096), (81, 38087), (83, 38066), (87, 38036), (89, 38030), (91, 38003), (101, 37958), (103, 37949), (108, 37931), (110, 37919), (111, 37916),

Gene: Ph8s\_60 Start: 38317, Stop: 37685, Start Num: 9

Candidate Starts for Ph8s\_60:

(Start: 9 @38317 has 573 MA's), (Start: 21 @38224 has 22 MA's), (22, 38221), (Start: 37 @38170 has 23 MA's), (Start: 41 @38143 has 29 MA's), (Start: 47 @38113 has 1 MA's), (60, 38035), (76, 37927), (81, 37894), (82, 37888), (83, 37873), (87, 37843), (90, 37834), (91, 37810), (95, 37792), (103, 37756),

Gene: Phacado\_55 Start: 38138, Stop: 37479, Start Num: 9

Candidate Starts for Phacado\_55:

(Start: 9 @38138 has 573 MA's), (Start: 21 @38045 has 22 MA's), (Start: 25 @38027 has 1 MA's), (Start: 33 @37991 has 2 MA's), (Start: 37 @37979 has 23 MA's), (Start: 41 @37952 has 29 MA's), (Start: 45 @37937 has 1 MA's), (60, 37832), (79, 37706), (80, 37700), (82, 37685), (83, 37670), (95, 37589), (101, 37562), (103, 37553), (119, 37487),

Gene: Phaded\_59 Start: 39863, Stop: 39324, Start Num: 21

Candidate Starts for Phaded\_59:

(Start: 21 @39863 has 22 MA's), (23, 39851), (Start: 37 @39809 has 23 MA's), (Start: 41 @39782 has 29 MA's), (Start: 47 @39752 has 1 MA's), (60, 39674), (61, 39668), (69, 39608), (82, 39527), (87, 39482), (91, 39449), (103, 39395), (110, 39365),

Gene: Phaeder\_59 Start: 38854, Stop: 38225, Start Num: 9

Candidate Starts for Phaeder\_59:

(Start: 9 @38854 has 573 MA's), (Start: 21 @38761 has 22 MA's), (Start: 26 @38737 has 3 MA's), (Start: 37 @38713 has 23 MA's), (Start: 41 @38686 has 29 MA's), (Start: 45 @38671 has 1 MA's), (60, 38575), (61, 38569), (67, 38530), (69, 38509), (80, 38443), (87, 38383), (91, 38350), (103, 38296),

Gene: PhailMary\_47 Start: 35416, Stop: 34943, Start Num: 41

Candidate Starts for PhailMary\_47:

(Start: 9 @35602 has 573 MA's), (Start: 26 @35479 has 3 MA's), (Start: 37 @35443 has 23 MA's), (Start: 41 @35416 has 29 MA's), (Start: 47 @35386 has 1 MA's), (Start: 52 @35356 has 1 MA's), (Start: 53 @35353 has 4 MA's), (54, 35347), (60, 35296), (67, 35251), (69, 35230), (80, 35164), (108, 34999), (111, 34984),

Gene: Phantastic\_59 Start: 38187, Stop: 37525, Start Num: 9

Candidate Starts for Phantastic\_59:

(Start: 9 @38187 has 573 MA's), (Start: 21 @38094 has 22 MA's), (Start: 33 @38040 has 2 MA's), (Start: 37 @38028 has 23 MA's), (Start: 41 @38001 has 29 MA's), (Start: 45 @37986 has 1 MA's), (Start: 53 @37938 has 4 MA's), (60, 37881), (68, 37833), (76, 37773), (79, 37755), (80, 37749), (82, 37734), (83, 37719), (87, 37689), (95, 37638), (103, 37602), (108, 37584), (119, 37536),

Gene: Pharaoh\_54 Start: 38900, Stop: 38271, Start Num: 9

Candidate Starts for Pharaoh\_54:

(Start: 9 @38900 has 573 MA's), (Start: 21 @38807 has 22 MA's), (Start: 37 @38756 has 23 MA's), (Start: 41 @38729 has 29 MA's), (60, 38621), (61, 38615), (69, 38555), (76, 38513), (79, 38495), (82, 38474), (87, 38429), (91, 38396), (95, 38378), (103, 38342), (111, 38309),

Gene: Phelipe\_56 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Phelipe\_56:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: PherrisBueller\_54 Start: 37881, Stop: 37360, Start Num: 29

Candidate Starts for PherrisBueller\_54:

(Start: 29 @37881 has 115 MA's), (Start: 37 @37857 has 23 MA's), (Start: 41 @37830 has 29 MA's), (Start: 44 @37818 has 4 MA's), (Start: 52 @37770 has 1 MA's), (73, 37620), (87, 37524), (91, 37491), (95, 37473), (99, 37461), (103, 37437), (110, 37407),

Gene: Phettuccine\_39 Start: 27816, Stop: 28481, Start Num: 7

Candidate Starts for Phettuccine\_39:

(Start: 7 @27816 has 37 MA's), (Start: 9 @27831 has 573 MA's), (11, 27834), (Start: 37 @27975 has 23 MA's), (Start: 53 @28059 has 4 MA's), (60, 28116), (61, 28122), (63, 28143), (64, 28152), (71, 28188), (73, 28212), (76, 28224), (78, 28233), (79, 28242), (84, 28287), (102, 28389), (107, 28410), (117, 28458),

Gene: Phighter1804\_55 Start: 38200, Stop: 37541, Start Num: 9

Candidate Starts for Phighter1804\_55:

(Start: 9 @38200 has 573 MA's), (Start: 21 @38107 has 22 MA's), (Start: 25 @38089 has 1 MA's), (Start: 33 @38053 has 2 MA's), (Start: 37 @38041 has 23 MA's), (Start: 41 @38014 has 29 MA's), (Start: 45 @37999 has 1 MA's), (60, 37894), (79, 37768), (80, 37762), (82, 37747), (83, 37732), (95, 37651), (101, 37624), (103, 37615), (119, 37549),

Gene: Phillis\_57 Start: 37605, Stop: 36952, Start Num: 9

Candidate Starts for Phillis\_57:

(Start: 9 @37605 has 573 MA's), (Start: 21 @37512 has 22 MA's), (Start: 33 @37452 has 2 MA's), (Start: 37 @37440 has 23 MA's), (Start: 41 @37413 has 29 MA's), (51, 37356), (60, 37305), (61, 37299), (80, 37173), (82, 37158), (83, 37143), (87, 37113), (91, 37080), (108, 37008), (109, 36999), (111, 36993), (117, 36969),

Gene: PhineBark\_55 Start: 39571, Stop: 39050, Start Num: 29

Candidate Starts for PhineBark\_55:

(Start: 29 @39571 has 115 MA's), (Start: 37 @39547 has 23 MA's), (Start: 41 @39520 has 29 MA's), (Start: 44 @39508 has 4 MA's), (Start: 52 @39460 has 1 MA's), (73, 39310), (87, 39214), (91, 39181), (95, 39163), (103, 39127), (110, 39097),

Gene: PhishRPhriends\_60 Start: 37965, Stop: 37306, Start Num: 9

Candidate Starts for PhishRPhriends\_60:

(Start: 9 @37965 has 573 MA's), (Start: 21 @37872 has 22 MA's), (Start: 33 @37818 has 2 MA's), (Start: 37 @37806 has 23 MA's), (Start: 41 @37779 has 29 MA's), (60, 37659), (76, 37551), (79, 37533), (80, 37527), (91, 37434), (95, 37416), (103, 37380), (108, 37362), (110, 37350),

Gene: Phlei\_49 Start: 38775, Stop: 38140, Start Num: 9

Candidate Starts for Phlei\_49:

(Start: 9 @38775 has 573 MA's), (Start: 21 @38682 has 22 MA's), (Start: 37 @38628 has 23 MA's), (Start: 41 @38601 has 29 MA's), (Start: 52 @38541 has 1 MA's), (60, 38493), (82, 38346), (87, 38301), (103, 38214),

Gene: Phlippers\_54 Start: 39962, Stop: 39441, Start Num: 29

Candidate Starts for Phlippers\_54:

(Start: 12 @40085 has 28 MA's), (Start: 29 @39962 has 115 MA's), (Start: 41 @39911 has 29 MA's), (Start: 44 @39899 has 4 MA's), (63, 39770), (68, 39749), (69, 39731), (79, 39671), (87, 39605), (91, 39572), (95, 39554), (103, 39518), (110, 39488),

Gene: Phlorence\_51 Start: 38030, Stop: 37371, Start Num: 9

Candidate Starts for Phlorence\_51:

(Start: 9 @38030 has 573 MA's), (Start: 21 @37937 has 22 MA's), (Start: 25 @37919 has 1 MA's), (Start: 33 @37877 has 2 MA's), (Start: 37 @37865 has 23 MA's), (Start: 41 @37838 has 29 MA's), (Start: 44 @37826 has 4 MA's), (69, 37664), (80, 37598), (83, 37568), (87, 37538), (89, 37532), (91, 37505), (95, 37487), (101, 37460), (103, 37451), (108, 37433), (110, 37421), (111, 37418),

Gene: Phoebe\_63 Start: 38891, Stop: 38232, Start Num: 9

Candidate Starts for Phoebe\_63:

(Start: 9 @38891 has 573 MA's), (Start: 21 @38798 has 22 MA's), (Start: 33 @38744 has 2 MA's), (Start: 37 @38732 has 23 MA's), (Start: 41 @38705 has 29 MA's), (60, 38585), (76, 38477), (79, 38459), (80, 38453), (95, 38342), (103, 38306), (108, 38288), (110, 38276),

Gene: Phonnegut\_59 Start: 38951, Stop: 38322, Start Num: 9

Candidate Starts for Phonnegut\_59:

(Start: 9 @38951 has 573 MA's), (Start: 21 @38858 has 22 MA's), (Start: 26 @38834 has 3 MA's), (Start: 37 @38810 has 23 MA's), (Start: 41 @38783 has 29 MA's), (Start: 45 @38768 has 1 MA's), (60, 38672), (61, 38666), (67, 38627), (69, 38606), (87, 38480), (91, 38447), (103, 38393), (110, 38363),

Gene: Phontbonne\_55 Start: 38030, Stop: 37371, Start Num: 9

Candidate Starts for Phontbonne\_55:



(Start: 9 @38030 has 573 MA's), (Start: 21 @37937 has 22 MA's), (Start: 25 @37919 has 1 MA's), (Start: 33 @37883 has 2 MA's), (Start: 37 @37871 has 23 MA's), (Start: 41 @37844 has 29 MA's), (Start: 45 @37829 has 1 MA's), (60, 37724), (79, 37598), (80, 37592), (82, 37577), (83, 37562), (95, 37481), (101, 37454), (103, 37445), (119, 37379),

Gene: Phoxy\_62 Start: 38923, Stop: 38264, Start Num: 9

Candidate Starts for Phoxy\_62:

(Start: 9 @38923 has 573 MA's), (Start: 21 @38830 has 22 MA's), (Start: 33 @38776 has 2 MA's), (Start: 37 @38764 has 23 MA's), (Start: 41 @38737 has 29 MA's), (60, 38617), (76, 38509), (80, 38485), (103, 38338), (108, 38320), (110, 38308),

Gene: Phrankenstein\_48 Start: 35226, Stop: 34567, Start Num: 9

Candidate Starts for Phrankenstein\_48:

(Start: 9 @35226 has 573 MA's), (Start: 26 @35103 has 3 MA's), (Start: 37 @35067 has 23 MA's), (Start: 41 @35040 has 29 MA's), (Start: 47 @35010 has 1 MA's), (Start: 52 @34980 has 1 MA's), (Start: 53 @34977 has 4 MA's), (54, 34971), (60, 34920), (67, 34875), (69, 34854), (79, 34794), (80, 34788), (108, 34623), (111, 34608),

Gene: Phranny\_63 Start: 38770, Stop: 38111, Start Num: 9

Candidate Starts for Phranny\_63:

(Start: 9 @38770 has 573 MA's), (Start: 21 @38677 has 22 MA's), (Start: 33 @38623 has 2 MA's), (Start: 37 @38611 has 23 MA's), (Start: 41 @38584 has 29 MA's), (60, 38464), (76, 38356), (79, 38338), (80, 38332), (91, 38239), (95, 38221), (103, 38185), (108, 38167), (110, 38155),

Gene: PhrostyMug\_54 Start: 39443, Stop: 38919, Start Num: 29

Candidate Starts for PhrostyMug\_54:

(Start: 29 @39443 has 115 MA's), (Start: 37 @39419 has 23 MA's), (Start: 41 @39392 has 29 MA's), (Start: 44 @39380 has 4 MA's), (Start: 52 @39332 has 1 MA's), (67, 39233), (73, 39182), (87, 39086), (91, 39053), (95, 39035), (103, 38999), (110, 38966), (111, 38963),

Gene: PickleBack\_53 Start: 38277, Stop: 37618, Start Num: 9

Candidate Starts for PickleBack\_53:

(Start: 9 @38277 has 573 MA's), (Start: 21 @38184 has 22 MA's), (Start: 25 @38166 has 1 MA's), (Start: 33 @38124 has 2 MA's), (Start: 37 @38112 has 23 MA's), (Start: 41 @38085 has 29 MA's), (Start: 44 @38073 has 4 MA's), (69, 37911), (80, 37845), (83, 37815), (87, 37785), (89, 37779), (91, 37752), (95, 37734), (101, 37707), (103, 37698), (108, 37680), (110, 37668), (111, 37665),

Gene: PinkPlastic\_55 Start: 38843, Stop: 38322, Start Num: 29

Candidate Starts for PinkPlastic\_55:

(Start: 20 @38900 has 38 MA's), (Start: 29 @38843 has 115 MA's), (Start: 37 @38819 has 23 MA's), (Start: 41 @38792 has 29 MA's), (Start: 44 @38780 has 4 MA's), (Start: 52 @38732 has 1 MA's), (73, 38582), (87, 38486), (91, 38453), (95, 38435), (103, 38399), (110, 38369),

Gene: Pinto\_55 Start: 39447, Stop: 38926, Start Num: 29

Candidate Starts for Pinto\_55:

(Start: 29 @39447 has 115 MA's), (Start: 37 @39423 has 23 MA's), (Start: 41 @39396 has 29 MA's), (Start: 44 @39384 has 4 MA's), (Start: 52 @39336 has 1 MA's), (73, 39186), (87, 39090), (88, 39087), (91, 39057), (95, 39039), (103, 39003), (110, 38973),

Gene: Pioneer\_59 Start: 38783, Stop: 38322, Start Num: 41

Candidate Starts for Pioneer\_59:

(Start: 9 @38951 has 573 MA's), (Start: 21 @38858 has 22 MA's), (Start: 26 @38834 has 3 MA's), (Start: 37 @38810 has 23 MA's), (Start: 41 @38783 has 29 MA's), (Start: 45 @38768 has 1 MA's), (60,

38672), (61, 38666), (67, 38627), (69, 38606), (87, 38480), (91, 38447), (103, 38393), (110, 38363),

Gene: Pipcraft\_53 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Pipcraft\_53:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Pippin\_56 Start: 39135, Stop: 38614, Start Num: 29

Candidate Starts for Pippin\_56:

(Start: 29 @39135 has 115 MA's), (Start: 37 @39111 has 23 MA's), (Start: 41 @39084 has 29 MA's), (Start: 44 @39072 has 4 MA's), (Start: 52 @39024 has 1 MA's), (73, 38874), (87, 38778), (88, 38775), (91, 38745), (95, 38727), (103, 38691), (110, 38661),

Gene: Pirate\_30 Start: 21257, Stop: 20586, Start Num: 13

Candidate Starts for Pirate\_30:

(Start: 13 @21257 has 45 MA's), (Start: 47 @21044 has 1 MA's), (Start: 53 @21005 has 4 MA's), (64, 20912), (67, 20903), (69, 20882), (73, 20852), (93, 20717), (101, 20675), (113, 20618), (118, 20597),

Gene: Piro94\_59 Start: 39101, Stop: 38469, Start Num: 9

Candidate Starts for Piro94\_59:

(Start: 9 @39101 has 573 MA's), (Start: 21 @39008 has 22 MA's), (Start: 37 @38954 has 23 MA's), (Start: 47 @38897 has 1 MA's), (60, 38819), (61, 38813), (69, 38753), (79, 38693), (82, 38672), (87, 38627), (91, 38594), (103, 38540),

Gene: Pistachio\_59 Start: 38096, Stop: 37437, Start Num: 9

Candidate Starts for Pistachio\_59:

(Start: 9 @38096 has 573 MA's), (Start: 21 @38003 has 22 MA's), (Start: 33 @37949 has 2 MA's), (Start: 37 @37937 has 23 MA's), (Start: 41 @37910 has 29 MA's), (Start: 45 @37895 has 1 MA's), (Start: 53 @37847 has 4 MA's), (60, 37790), (68, 37742), (79, 37664), (82, 37643), (83, 37628), (95, 37547), (103, 37511), (108, 37493), (119, 37445),

Gene: Pita2\_58 Start: 39736, Stop: 39092, Start Num: 12

Candidate Starts for Pita2\_58:

(Start: 12 @39736 has 28 MA's), (Start: 29 @39613 has 115 MA's), (Start: 41 @39562 has 29 MA's), (Start: 44 @39550 has 4 MA's), (63, 39421), (68, 39400), (69, 39382), (87, 39256), (88, 39253), (91, 39223), (95, 39205), (103, 39169), (110, 39139),

Gene: Pmask\_59 Start: 37721, Stop: 37089, Start Num: 9

Candidate Starts for Pmask\_59:

(Start: 9 @37721 has 573 MA's), (Start: 21 @37628 has 22 MA's), (Start: 37 @37574 has 23 MA's), (Start: 47 @37517 has 1 MA's), (60, 37439), (69, 37373), (82, 37292), (87, 37247), (91, 37214), (95, 37196), (103, 37160), (110, 37130), (111, 37127),

Gene: Pocahontas\_57 Start: 38511, Stop: 37849, Start Num: 9

Candidate Starts for Pocahontas\_57:

(Start: 9 @38511 has 573 MA's), (Start: 21 @38418 has 22 MA's), (Start: 24 @38403 has 2 MA's), (Start: 33 @38364 has 2 MA's), (Start: 37 @38352 has 23 MA's), (Start: 41 @38325 has 29 MA's), (60, 38205), (68, 38157), (76, 38097), (79, 38079), (80, 38073), (82, 38058), (83, 38043), (103, 37926), (108, 37908),

Gene: Polymorphads\_56 Start: 38132, Stop: 37473, Start Num: 9

Candidate Starts for Polymorphads\_56:

(Start: 9 @38132 has 573 MA's), (Start: 21 @38039 has 22 MA's), (Start: 25 @38021 has 1 MA's), (Start: 33 @37985 has 2 MA's), (Start: 37 @37973 has 23 MA's), (Start: 41 @37946 has 29 MA's), (Start: 45 @37931 has 1 MA's), (60, 37826), (79, 37700), (80, 37694), (82, 37679), (83, 37664), (95, 37583), (101, 37556), (103, 37547), (119, 37481),

Gene: Polyphemus\_61 Start: 38103, Stop: 37471, Start Num: 9

Candidate Starts for Polyphemus\_61:

(Start: 9 @38103 has 573 MA's), (Start: 21 @38010 has 22 MA's), (Start: 37 @37956 has 23 MA's), (Start: 47 @37899 has 1 MA's), (60, 37821), (69, 37755), (82, 37674), (87, 37629), (91, 37596), (95, 37578), (103, 37542), (110, 37512), (111, 37509),

Gene: Pomar16\_61 Start: 38941, Stop: 38309, Start Num: 9

Candidate Starts for Pomar16\_61:

(Start: 9 @38941 has 573 MA's), (Start: 21 @38848 has 22 MA's), (Start: 37 @38794 has 23 MA's), (Start: 41 @38767 has 29 MA's), (Start: 47 @38737 has 1 MA's), (60, 38659), (61, 38653), (69, 38593), (82, 38512), (87, 38467), (91, 38434), (95, 38416), (103, 38380),

Gene: Ponzi\_29 Start: 17166, Stop: 16498, Start Num: 14

Candidate Starts for Ponzi\_29:

(Start: 8 @17196 has 1 MA's), (Start: 14 @17166 has 1 MA's), (16, 17154), (38, 17007), (60, 16854), (62, 16836), (73, 16758), (78, 16737), (91, 16629), (95, 16611),

Gene: Poompha\_54 Start: 37273, Stop: 36614, Start Num: 9

Candidate Starts for Poompha\_54:

(Start: 9 @37273 has 573 MA's), (Start: 21 @37180 has 22 MA's), (Start: 37 @37114 has 23 MA's), (Start: 41 @37087 has 29 MA's), (Start: 53 @37024 has 4 MA's), (60, 36967), (68, 36919), (82, 36820), (83, 36805), (101, 36697), (103, 36688), (108, 36670), (110, 36658), (119, 36622),

Gene: Popcicle\_57 Start: 38511, Stop: 37849, Start Num: 9

Candidate Starts for Popcicle\_57:

(Start: 9 @38511 has 573 MA's), (Start: 21 @38418 has 22 MA's), (Start: 24 @38403 has 2 MA's), (Start: 33 @38364 has 2 MA's), (Start: 37 @38352 has 23 MA's), (Start: 41 @38325 has 29 MA's), (60, 38205), (68, 38157), (76, 38097), (79, 38079), (80, 38073), (82, 38058), (83, 38043), (103, 37926), (108, 37908),

Gene: PotatoSplit\_64 Start: 38902, Stop: 38243, Start Num: 9

Candidate Starts for PotatoSplit\_64:

(Start: 9 @38902 has 573 MA's), (Start: 21 @38809 has 22 MA's), (Start: 33 @38755 has 2 MA's), (Start: 37 @38743 has 23 MA's), (Start: 41 @38716 has 29 MA's), (60, 38596), (76, 38488), (79, 38470), (80, 38464), (95, 38353), (103, 38317), (108, 38299), (110, 38287),

Gene: Power\_58 Start: 39109, Stop: 38477, Start Num: 9

Candidate Starts for Power\_58:

(Start: 9 @39109 has 573 MA's), (Start: 21 @39016 has 22 MA's), (Start: 37 @38962 has 23 MA's), (Start: 47 @38905 has 1 MA's), (69, 38761), (79, 38701), (87, 38635), (91, 38602), (95, 38584), (103, 38548),

Gene: Priamo\_62 Start: 37378, Stop: 36839, Start Num: 21

Candidate Starts for Priamo\_62:

(Start: 9 @37471 has 573 MA's), (Start: 21 @37378 has 22 MA's), (Start: 37 @37324 has 23 MA's), (Start: 47 @37267 has 1 MA's), (60, 37189), (69, 37123), (82, 37042), (87, 36997), (91, 36964), (95, 36946), (103, 36910), (110, 36880), (111, 36877),

Gene: Prin Ashe11\_53 Start: 38352, Stop: 37693, Start Num: 9

Candidate Starts for Prin Ashe11\_53:

(Start: 9 @38352 has 573 MA's), (Start: 21 @38259 has 22 MA's), (Start: 25 @38241 has 1 MA's), (Start: 33 @38199 has 2 MA's), (Start: 37 @38187 has 23 MA's), (Start: 41 @38160 has 29 MA's), (Start: 44 @38148 has 4 MA's), (Start: 53 @38097 has 4 MA's), (80, 37920), (81, 37911), (83, 37890), (86, 37875), (87, 37860), (89, 37854), (91, 37827), (95, 37809), (101, 37782), (103, 37773), (108, 37755), (110, 37743), (111, 37740),

Gene: Priya\_59 Start: 38921, Stop: 38292, Start Num: 9

Candidate Starts for Priya\_59:

(Start: 9 @38921 has 573 MA's), (Start: 21 @38828 has 22 MA's), (Start: 26 @38804 has 3 MA's), (Start: 37 @38780 has 23 MA's), (Start: 41 @38753 has 29 MA's), (Start: 45 @38738 has 1 MA's), (60, 38642), (61, 38636), (67, 38597), (69, 38576), (80, 38510), (87, 38450), (91, 38417), (103, 38363),

Gene: ProMouse\_56 Start: 39390, Stop: 38869, Start Num: 29

Candidate Starts for ProMouse\_56:

(Start: 29 @39390 has 115 MA's), (Start: 37 @39366 has 23 MA's), (Start: 41 @39339 has 29 MA's), (Start: 44 @39327 has 4 MA's), (Start: 52 @39279 has 1 MA's), (73, 39129), (87, 39033), (91, 39000), (95, 38982), (103, 38946), (110, 38916),

Gene: ProCrass1\_30 Start: 21331, Stop: 20660, Start Num: 13

Candidate Starts for ProCrass1\_30:

(Start: 13 @21331 has 45 MA's), (Start: 47 @21118 has 1 MA's), (Start: 53 @21079 has 4 MA's), (64, 20986), (67, 20977), (73, 20926), (93, 20791), (101, 20749), (113, 20692), (118, 20671),

Gene: ProVolone\_41 Start: 29256, Stop: 29921, Start Num: 7

Candidate Starts for ProVolone\_41:

(Start: 7 @29256 has 37 MA's), (Start: 9 @29271 has 573 MA's), (Start: 53 @29499 has 4 MA's), (60, 29556), (61, 29562), (63, 29583), (64, 29592), (73, 29652), (74, 29655), (76, 29664), (84, 29727), (87, 29748), (102, 29829), (107, 29850),

Gene: Puginator\_42 Start: 29667, Stop: 30329, Start Num: 6

Candidate Starts for Puginator\_42:

(Start: 6 @29667 has 32 MA's), (15, 29715), (17, 29730), (19, 29751), (28, 29808), (Start: 43 @29868 has 1 MA's), (63, 29997), (82, 30117), (84, 30141), (115, 30297), (117, 30309),

Gene: Pukovnik\_57 Start: 39434, Stop: 38976, Start Num: 41

Candidate Starts for Pukovnik\_57:

(Start: 9 @39608 has 573 MA's), (Start: 21 @39515 has 22 MA's), (Start: 37 @39461 has 23 MA's), (Start: 41 @39434 has 29 MA's), (Start: 45 @39419 has 1 MA's), (Start: 47 @39404 has 1 MA's), (Start: 52 @39374 has 1 MA's), (60, 39326), (61, 39320), (69, 39260), (82, 39179), (87, 39134), (91, 39101), (95, 39083), (103, 39047), (110, 39017),

Gene: Pumbaa\_55 Start: 38084, Stop: 37425, Start Num: 9

Candidate Starts for Pumbaa\_55:

(Start: 9 @38084 has 573 MA's), (Start: 21 @37991 has 22 MA's), (Start: 25 @37973 has 1 MA's), (Start: 33 @37937 has 2 MA's), (Start: 37 @37925 has 23 MA's), (Start: 41 @37898 has 29 MA's), (Start: 45 @37883 has 1 MA's), (60, 37778), (79, 37652), (80, 37646), (82, 37631), (83, 37616), (95, 37535), (101, 37508), (103, 37499), (119, 37433),

Gene: Puppy\_59 Start: 38168, Stop: 37509, Start Num: 9

Candidate Starts for Puppy\_59:

(Start: 9 @38168 has 573 MA's), (Start: 21 @38075 has 22 MA's), (Start: 33 @38021 has 2 MA's), (Start: 37 @38009 has 23 MA's), (Start: 41 @37982 has 29 MA's), (Start: 45 @37967 has 1 MA's), (Start: 53 @37919 has 4 MA's), (60, 37862), (68, 37814), (79, 37736), (82, 37715), (83, 37700), (95, 37619), (103, 37583), (108, 37565), (119, 37517),

Gene: PurpleHaze\_62 Start: 38783, Stop: 38124, Start Num: 9

Candidate Starts for PurpleHaze\_62:

(Start: 9 @38783 has 573 MA's), (Start: 21 @38690 has 22 MA's), (Start: 33 @38636 has 2 MA's), (Start: 37 @38624 has 23 MA's), (Start: 41 @38597 has 29 MA's), (60, 38477), (76, 38369), (79, 38351), (80, 38345), (91, 38252), (95, 38234), (103, 38198), (108, 38180), (110, 38168),

Gene: QTRlifeCrisis\_54 Start: 39511, Stop: 38990, Start Num: 29

Candidate Starts for QTRlifeCrisis\_54:

(Start: 29 @39511 has 115 MA's), (Start: 37 @39487 has 23 MA's), (Start: 41 @39460 has 29 MA's), (Start: 44 @39448 has 4 MA's), (Start: 52 @39400 has 1 MA's), (67, 39301), (73, 39250), (87, 39154), (88, 39151), (91, 39121), (95, 39103), (103, 39067), (110, 39037),

Gene: Qobbit\_59 Start: 38766, Stop: 38254, Start Num: 26

Candidate Starts for Qobbit\_59:

(Start: 9 @38883 has 573 MA's), (Start: 21 @38790 has 22 MA's), (Start: 26 @38766 has 3 MA's), (Start: 37 @38742 has 23 MA's), (Start: 41 @38715 has 29 MA's), (Start: 45 @38700 has 1 MA's), (60, 38604), (61, 38598), (67, 38559), (69, 38538), (80, 38472), (87, 38412), (91, 38379), (103, 38325),

Gene: QueenB2\_58 Start: 39087, Stop: 38455, Start Num: 9

Candidate Starts for QueenB2\_58:

(Start: 9 @39087 has 573 MA's), (Start: 21 @38994 has 22 MA's), (30, 38958), (Start: 37 @38940 has 23 MA's), (Start: 47 @38883 has 1 MA's), (61, 38799), (69, 38739), (79, 38679), (87, 38613), (91, 38580), (103, 38526),

Gene: QueenBeesly\_59 Start: 39056, Stop: 38424, Start Num: 9

Candidate Starts for QueenBeesly\_59:

(Start: 9 @39056 has 573 MA's), (Start: 21 @38963 has 22 MA's), (Start: 37 @38909 has 23 MA's), (Start: 47 @38852 has 1 MA's), (69, 38708), (79, 38648), (87, 38582), (91, 38549), (95, 38531), (103, 38495),

Gene: QueenBey\_30 Start: 21314, Stop: 20643, Start Num: 13

Candidate Starts for QueenBey\_30:

(Start: 13 @21314 has 45 MA's), (Start: 47 @21101 has 1 MA's), (Start: 53 @21062 has 4 MA's), (64, 20969), (67, 20960), (69, 20939), (73, 20909), (93, 20774), (101, 20732), (113, 20675), (118, 20654),

Gene: QuinnKiro\_56 Start: 38514, Stop: 37852, Start Num: 9

Candidate Starts for QuinnKiro\_56:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: Quokka\_58 Start: 38151, Stop: 37627, Start Num: 24

Candidate Starts for Quokka\_58:

(Start: 9 @38259 has 573 MA's), (Start: 21 @38166 has 22 MA's), (Start: 24 @38151 has 2 MA's), (Start: 37 @38112 has 23 MA's), (Start: 41 @38085 has 29 MA's), (Start: 47 @38055 has 1 MA's), (60, 37977), (67, 37932), (69, 37911), (82, 37830), (87, 37785), (91, 37752), (95, 37734), (103, 37698),

Gene: R4\_40 Start: 29375, Stop: 30037, Start Num: 6

Candidate Starts for R4\_40:

(Start: 6 @29375 has 32 MA's), (15, 29423), (22, 29486), (28, 29516), (Start: 43 @29576 has 1 MA's), (Start: 53 @29621 has 4 MA's), (63, 29705), (64, 29714), (82, 29825), (84, 29849), (107, 29969), (109, 29984), (115, 30005),

Gene: RER2\_41 Start: 31966, Stop: 31493, Start Num: 41

Candidate Starts for RER2\_41:

(Start: 9 @32152 has 573 MA's), (Start: 26 @32029 has 3 MA's), (Start: 37 @31993 has 23 MA's), (Start: 41 @31966 has 29 MA's), (Start: 47 @31936 has 1 MA's), (Start: 52 @31906 has 1 MA's), (Start: 53 @31903 has 4 MA's), (54, 31897), (60, 31846), (67, 31801), (69, 31780), (79, 31720), (80, 31714), (108, 31549), (111, 31534),

Gene: RGL3\_42 Start: 32920, Stop: 32447, Start Num: 41

Candidate Starts for RGL3\_42:

(Start: 9 @33106 has 573 MA's), (Start: 26 @32983 has 3 MA's), (Start: 37 @32947 has 23 MA's), (Start: 41 @32920 has 29 MA's), (Start: 45 @32905 has 1 MA's), (54, 32851), (60, 32800), (61, 32794), (67, 32755), (69, 32734), (74, 32701), (76, 32692), (79, 32674), (80, 32668), (87, 32608),

Gene: Rachaly\_58 Start: 39355, Stop: 38723, Start Num: 9

Candidate Starts for Rachaly\_58:

(Start: 9 @39355 has 573 MA's), (Start: 21 @39262 has 22 MA's), (Start: 37 @39208 has 23 MA's), (Start: 41 @39181 has 29 MA's), (60, 39073), (61, 39067), (69, 39007), (82, 38926), (87, 38881), (91, 38848), (95, 38830), (103, 38794),

Gene: Rahalelujah\_59 Start: 38624, Stop: 37998, Start Num: 9

Candidate Starts for Rahalelujah\_59:

(Start: 9 @38624 has 573 MA's), (16, 38588), (Start: 21 @38531 has 22 MA's), (Start: 37 @38483 has 23 MA's), (Start: 41 @38456 has 29 MA's), (Start: 44 @38444 has 4 MA's), (Start: 47 @38426 has 1 MA's), (60, 38348), (69, 38282), (76, 38240), (79, 38222), (82, 38201), (87, 38156), (91, 38123), (103, 38069),

Gene: Raid\_55 Start: 38929, Stop: 38285, Start Num: 12

Candidate Starts for Raid\_55:

(Start: 12 @38929 has 28 MA's), (Start: 29 @38806 has 115 MA's), (Start: 41 @38755 has 29 MA's), (Start: 44 @38743 has 4 MA's), (58, 38662), (63, 38614), (68, 38593), (69, 38575), (79, 38515), (87, 38449), (91, 38416), (95, 38398), (103, 38362), (110, 38332),

Gene: Rajelicia\_55 Start: 40207, Stop: 39563, Start Num: 12

Candidate Starts for Rajelicia\_55:

(Start: 12 @40207 has 28 MA's), (Start: 29 @40084 has 115 MA's), (Start: 41 @40033 has 29 MA's), (Start: 44 @40021 has 4 MA's), (63, 39892), (68, 39871), (87, 39727), (91, 39694), (95, 39676), (103, 39640), (110, 39610),

Gene: Rana\_40 Start: 28695, Stop: 29360, Start Num: 7

Candidate Starts for Rana\_40:

(Start: 7 @28695 has 37 MA's), (Start: 9 @28710 has 573 MA's), (11, 28713), (Start: 37 @28854 has 23 MA's), (Start: 53 @28938 has 4 MA's), (60, 28995), (61, 29001), (63, 29022), (73, 29091), (74, 29094), (76, 29103), (78, 29112), (79, 29121), (84, 29166), (87, 29187), (102, 29268), (107, 29289), (117, 29337),

Gene: Rasputin\_48 Start: 35250, Stop: 34591, Start Num: 9

Candidate Starts for Rasputin\_48:

(Start: 9 @35250 has 573 MA's), (Start: 26 @35127 has 3 MA's), (Start: 37 @35091 has 23 MA's), (Start: 41 @35064 has 29 MA's), (Start: 47 @35034 has 1 MA's), (Start: 52 @35004 has 1 MA's), (Start: 53 @35001 has 4 MA's), (54, 34995), (60, 34944), (67, 34899), (69, 34878), (79, 34818), (80, 34812), (108, 34647), (111, 34632),

Gene: ReMo\_64 Start: 38278, Stop: 37646, Start Num: 9

Candidate Starts for ReMo\_64:

(Start: 9 @38278 has 573 MA's), (Start: 13 @38260 has 45 MA's), (Start: 21 @38185 has 22 MA's), (Start: 41 @38107 has 29 MA's), (Start: 45 @38092 has 1 MA's), (Start: 47 @38077 has 1 MA's), (66, 37957), (67, 37954), (78, 37882), (82, 37852), (91, 37774), (95, 37756), (103, 37720),

Gene: Reba\_62 Start: 38443, Stop: 37784, Start Num: 9

Candidate Starts for Reba\_62:

(Start: 9 @38443 has 573 MA's), (Start: 21 @38350 has 22 MA's), (Start: 33 @38296 has 2 MA's), (Start: 37 @38284 has 23 MA's), (Start: 41 @38257 has 29 MA's), (60, 38137), (76, 38029), (79, 38011), (80, 38005), (91, 37912), (95, 37894), (103, 37858), (108, 37840), (110, 37828),

Gene: Rebeuca\_56 Start: 38420, Stop: 37761, Start Num: 9

Candidate Starts for Rebeuca\_56:

(Start: 9 @38420 has 573 MA's), (Start: 21 @38327 has 22 MA's), (Start: 37 @38261 has 23 MA's), (Start: 41 @38234 has 29 MA's), (Start: 53 @38171 has 4 MA's), (60, 38114), (68, 38066), (76, 38006), (79, 37988), (82, 37967), (83, 37952), (101, 37844), (103, 37835), (108, 37817), (110, 37805), (119, 37769),

Gene: RedBear\_40 Start: 28378, Stop: 29028, Start Num: 9

Candidate Starts for RedBear\_40:

(Start: 7 @28363 has 37 MA's), (Start: 9 @28378 has 573 MA's), (11, 28381), (Start: 53 @28606 has 4 MA's), (60, 28663), (61, 28669), (63, 28690), (64, 28699), (73, 28759), (76, 28771), (78, 28780), (79, 28789), (84, 28834), (87, 28855), (102, 28936), (107, 28957), (117, 29005),

Gene: RedRock\_61 Start: 39741, Stop: 39313, Start Num: 47

Candidate Starts for RedRock\_61:

(Start: 9 @39945 has 573 MA's), (Start: 21 @39852 has 22 MA's), (30, 39816), (Start: 37 @39798 has 23 MA's), (Start: 47 @39741 has 1 MA's), (60, 39663), (61, 39657), (67, 39618), (69, 39597), (82, 39516), (87, 39471), (91, 39438), (95, 39420), (103, 39384),

Gene: Refuge\_57 Start: 40195, Stop: 39569, Start Num: 9

Candidate Starts for Refuge\_57:

(Start: 9 @40195 has 573 MA's), (Start: 21 @40102 has 22 MA's), (Start: 37 @40054 has 23 MA's), (Start: 41 @40027 has 29 MA's), (Start: 52 @39967 has 1 MA's), (60, 39919), (61, 39913), (69, 39853), (79, 39793), (80, 39787), (87, 39727), (91, 39694), (95, 39676), (103, 39640),

Gene: Relief\_54 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Relief\_54:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Remus\_66 Start: 38284, Stop: 37652, Start Num: 9

Candidate Starts for Remus\_66:

(Start: 9 @38284 has 573 MA's), (Start: 13 @38266 has 45 MA's), (Start: 21 @38191 has 22 MA's), (Start: 41 @38113 has 29 MA's), (Start: 45 @38098 has 1 MA's), (Start: 47 @38083 has 1 MA's), (66,

37963), (67, 37960), (78, 37888), (82, 37858), (91, 37780), (103, 37726),

Gene: ResDef\_57 Start: 38514, Stop: 37852, Start Num: 9

Candidate Starts for ResDef\_57:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: RetrieverFever\_57 Start: 30569, Stop: 29937, Start Num: 9

Candidate Starts for RetrieverFever\_57:

(Start: 9 @30569 has 573 MA's), (Start: 13 @30551 has 45 MA's), (15, 30539), (Start: 47 @30371 has 1 MA's), (50, 30347), (67, 30245), (79, 30164), (87, 30098), (96, 30044), (97, 30041),

Gene: Retro23\_60 Start: 39301, Stop: 38669, Start Num: 9

Candidate Starts for Retro23\_60:

(Start: 9 @39301 has 573 MA's), (Start: 21 @39208 has 22 MA's), (Start: 37 @39154 has 23 MA's), (Start: 47 @39097 has 1 MA's), (61, 39013), (69, 38953), (79, 38893), (87, 38827), (91, 38794), (103, 38740),

Gene: RexFury\_47 Start: 35311, Stop: 34652, Start Num: 9

Candidate Starts for RexFury\_47:

(Start: 9 @35311 has 573 MA's), (Start: 26 @35188 has 3 MA's), (Start: 37 @35152 has 23 MA's), (Start: 41 @35125 has 29 MA's), (Start: 47 @35095 has 1 MA's), (Start: 52 @35065 has 1 MA's), (Start: 53 @35062 has 4 MA's), (54, 35056), (60, 35005), (67, 34960), (69, 34939), (79, 34879), (80, 34873), (108, 34708), (111, 34693),

Gene: Rhodalysa\_48 Start: 35031, Stop: 34621, Start Num: 53

Candidate Starts for Rhodalysa\_48:

(Start: 9 @35280 has 573 MA's), (Start: 26 @35157 has 3 MA's), (Start: 37 @35121 has 23 MA's), (Start: 41 @35094 has 29 MA's), (Start: 47 @35064 has 1 MA's), (Start: 52 @35034 has 1 MA's), (Start: 53 @35031 has 4 MA's), (54, 35025), (60, 34974), (67, 34929), (69, 34908), (79, 34848), (80, 34842), (108, 34677), (111, 34662),

Gene: RhynO\_56 Start: 38222, Stop: 37563, Start Num: 9

Candidate Starts for RhynO\_56:

(Start: 9 @38222 has 573 MA's), (Start: 21 @38129 has 22 MA's), (Start: 37 @38063 has 23 MA's), (Start: 41 @38036 has 29 MA's), (Start: 53 @37973 has 4 MA's), (60, 37916), (68, 37868), (79, 37790), (80, 37784), (82, 37769), (83, 37754), (101, 37646), (103, 37637), (108, 37619), (110, 37607), (119, 37571),

Gene: Rhynn\_53 Start: 38251, Stop: 37730, Start Num: 29

Candidate Starts for Rhynn\_53:

(Start: 29 @38251 has 115 MA's), (Start: 37 @38227 has 23 MA's), (Start: 41 @38200 has 29 MA's), (Start: 44 @38188 has 4 MA's), (Start: 52 @38140 has 1 MA's), (73, 37990), (87, 37894), (91, 37861), (95, 37843), (103, 37807), (110, 37777),

Gene: Rideau\_62 Start: 31136, Stop: 30504, Start Num: 9

Candidate Starts for Rideau\_62:

(Start: 9 @31136 has 573 MA's), (Start: 13 @31118 has 45 MA's), (15, 31106), (Start: 47 @30938 has 1 MA's), (50, 30914), (59, 30875), (67, 30812), (79, 30731), (87, 30665),

Gene: RidgeCB\_54 Start: 39408, Stop: 38827, Start Num: 20



Candidate Starts for RidgeCB\_54:

(Start: 20 @39408 has 38 MA's), (Start: 29 @39351 has 115 MA's), (Start: 37 @39327 has 23 MA's), (Start: 41 @39300 has 29 MA's), (Start: 44 @39288 has 4 MA's), (Start: 52 @39240 has 1 MA's), (67, 39141), (73, 39090), (87, 38994), (91, 38961), (95, 38943), (103, 38907), (110, 38874), (111, 38871),

Gene: Rifter\_61 Start: 37329, Stop: 36697, Start Num: 9

Candidate Starts for Rifter\_61:

(Start: 9 @37329 has 573 MA's), (Start: 21 @37236 has 22 MA's), (Start: 37 @37182 has 23 MA's), (Start: 47 @37125 has 1 MA's), (61, 37041), (69, 36981), (87, 36855), (91, 36822), (95, 36804), (103, 36768), (110, 36738), (111, 36735),

Gene: Rileysaurus\_30 Start: 21416, Stop: 20691, Start Num: 4

Candidate Starts for Rileysaurus\_30:

(Start: 4 @21416 has 1 MA's), (Start: 13 @21362 has 45 MA's), (Start: 47 @21149 has 1 MA's), (Start: 53 @21110 has 4 MA's), (64, 21017), (67, 21008), (69, 20987), (73, 20957), (93, 20822), (101, 20780), (106, 20759), (113, 20723), (118, 20702),

Gene: Ringer\_55 Start: 40401, Stop: 39880, Start Num: 29

Candidate Starts for Ringer\_55:

(Start: 12 @40524 has 28 MA's), (Start: 29 @40401 has 115 MA's), (Start: 41 @40350 has 29 MA's), (Start: 44 @40338 has 4 MA's), (58, 40257), (63, 40209), (68, 40188), (69, 40170), (79, 40110), (87, 40044), (91, 40011), (95, 39993), (103, 39957), (110, 39927),

Gene: Roary\_60 Start: 38199, Stop: 37546, Start Num: 9

Candidate Starts for Roary\_60:

(Start: 9 @38199 has 573 MA's), (Start: 21 @38106 has 22 MA's), (Start: 33 @38046 has 2 MA's), (Start: 37 @38034 has 23 MA's), (Start: 41 @38007 has 29 MA's), (51, 37950), (60, 37899), (61, 37893), (82, 37752), (83, 37737), (87, 37707), (91, 37674), (108, 37602), (109, 37593), (111, 37587), (117, 37563),

Gene: Rockstar\_57 Start: 38019, Stop: 37357, Start Num: 9

Candidate Starts for Rockstar\_57:

(Start: 9 @38019 has 573 MA's), (Start: 21 @37926 has 22 MA's), (Start: 33 @37872 has 2 MA's), (Start: 37 @37860 has 23 MA's), (Start: 41 @37833 has 29 MA's), (Start: 45 @37818 has 1 MA's), (Start: 53 @37770 has 4 MA's), (60, 37713), (68, 37665), (76, 37605), (79, 37587), (80, 37581), (82, 37566), (83, 37551), (87, 37521), (95, 37470), (103, 37434), (108, 37416), (119, 37368),

Gene: Rohr\_56 Start: 39419, Stop: 38772, Start Num: 12

Candidate Starts for Rohr\_56:

(Start: 12 @39419 has 28 MA's), (Start: 29 @39296 has 115 MA's), (Start: 41 @39245 has 29 MA's), (Start: 44 @39233 has 4 MA's), (58, 39152), (63, 39104), (68, 39083), (69, 39065), (87, 38939), (91, 38906), (95, 38888), (103, 38852), (110, 38819), (111, 38816),

Gene: Roksolana\_62 Start: 38163, Stop: 37531, Start Num: 9

Candidate Starts for Roksolana\_62:

(Start: 9 @38163 has 573 MA's), (Start: 21 @38070 has 22 MA's), (Start: 37 @38016 has 23 MA's), (Start: 47 @37959 has 1 MA's), (61, 37875), (69, 37815), (87, 37689), (91, 37656), (95, 37638), (103, 37602), (108, 37584), (110, 37572), (111, 37569),

Gene: Romero\_58 Start: 30968, Stop: 30336, Start Num: 9

Candidate Starts for Romero\_58:

(Start: 9 @30968 has 573 MA's), (Start: 13 @30950 has 45 MA's), (15, 30938), (22, 30878), (Start: 47 @30770 has 1 MA's), (48, 30752), (50, 30746), (64, 30653), (80, 30557), (87, 30497),

Gene: Romney\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Romney\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Roosevelt\_54 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Roosevelt\_54:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (101, 37565), (103, 37556), (119, 37490),

Gene: Rosa24\_54 Start: 38167, Stop: 37508, Start Num: 9

Candidate Starts for Rosa24\_54:

(Start: 9 @38167 has 573 MA's), (Start: 21 @38074 has 22 MA's), (Start: 25 @38056 has 1 MA's), (Start: 33 @38020 has 2 MA's), (Start: 37 @38008 has 23 MA's), (Start: 41 @37981 has 29 MA's), (Start: 45 @37966 has 1 MA's), (60, 37861), (79, 37735), (80, 37729), (82, 37714), (83, 37699), (95, 37618), (101, 37591), (103, 37582), (119, 37516),

Gene: Rosalind\_64 Start: 38436, Stop: 37804, Start Num: 9

Candidate Starts for Rosalind\_64:

(Start: 9 @38436 has 573 MA's), (Start: 13 @38418 has 45 MA's), (Start: 21 @38343 has 22 MA's), (Start: 41 @38265 has 29 MA's), (Start: 45 @38250 has 1 MA's), (Start: 47 @38235 has 1 MA's), (66, 38115), (67, 38112), (78, 38040), (82, 38010), (91, 37932), (103, 37878),

Gene: RosePharie\_58 Start: 30792, Stop: 30160, Start Num: 9

Candidate Starts for RosePharie\_58:

(Start: 9 @30792 has 573 MA's), (Start: 13 @30774 has 45 MA's), (15, 30762), (Start: 47 @30594 has 1 MA's), (50, 30570), (55, 30555), (67, 30468), (79, 30387), (87, 30321), (96, 30267), (97, 30264),

Gene: Rowdy\_59 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for Rowdy\_59:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 53 @37884 has 4 MA's), (60, 37827), (68, 37779), (76, 37719), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (101, 37557), (103, 37548), (108, 37530), (110, 37518), (119, 37482),

Gene: Rubeus\_55 Start: 37291, Stop: 36713, Start Num: 20

Candidate Starts for Rubeus\_55:

(Start: 20 @37291 has 38 MA's), (Start: 29 @37234 has 115 MA's), (Start: 37 @37210 has 23 MA's), (Start: 41 @37183 has 29 MA's), (Start: 44 @37171 has 4 MA's), (Start: 52 @37123 has 1 MA's), (73, 36973), (87, 36877), (88, 36874), (91, 36844), (95, 36826), (103, 36790), (110, 36760),

Gene: Rufus\_56 Start: 38896, Stop: 38318, Start Num: 20

Candidate Starts for Rufus\_56:

(Start: 20 @38896 has 38 MA's), (Start: 29 @38839 has 115 MA's), (Start: 37 @38815 has 23 MA's), (Start: 41 @38788 has 29 MA's), (Start: 44 @38776 has 4 MA's), (Start: 52 @38728 has 1 MA's), (73, 38578), (87, 38482), (88, 38479), (91, 38449), (95, 38431), (103, 38395), (110, 38365),

Gene: Ruin\_55 Start: 38132, Stop: 37473, Start Num: 9

Candidate Starts for Ruin\_55:

(Start: 9 @38132 has 573 MA's), (Start: 21 @38039 has 22 MA's), (Start: 25 @38021 has 1 MA's),  
(Start: 33 @37985 has 2 MA's), (Start: 37 @37973 has 23 MA's), (Start: 41 @37946 has 29 MA's),  
(Start: 45 @37931 has 1 MA's), (60, 37826), (79, 37700), (80, 37694), (82, 37679), (83, 37664), (95,  
37583), (101, 37556), (103, 37547), (119, 37481),

Gene: Rummer\_61 Start: 38926, Stop: 38267, Start Num: 9

Candidate Starts for Rummer\_61:

(Start: 9 @38926 has 573 MA's), (Start: 21 @38833 has 22 MA's), (Start: 33 @38779 has 2 MA's),  
(Start: 37 @38767 has 23 MA's), (Start: 41 @38740 has 29 MA's), (60, 38620), (76, 38512), (79,  
38494), (80, 38488), (95, 38377), (103, 38341), (108, 38323), (110, 38311),

Gene: Rusticus\_40 Start: 28336, Stop: 28842, Start Num: 37

Candidate Starts for Rusticus\_40:

(Start: 7 @28177 has 37 MA's), (Start: 9 @28192 has 573 MA's), (11, 28195), (Start: 37 @28336 has  
23 MA's), (Start: 53 @28420 has 4 MA's), (60, 28477), (61, 28483), (63, 28504), (64, 28513), (71,  
28549), (73, 28573), (76, 28585), (77, 28588), (78, 28594), (79, 28603), (84, 28648), (87, 28669), (102,  
28750), (107, 28771), (117, 28819),

Gene: Rutherferd\_56 Start: 39470, Stop: 38946, Start Num: 29

Candidate Starts for Rutherferd\_56:

(Start: 29 @39470 has 115 MA's), (Start: 37 @39446 has 23 MA's), (Start: 41 @39419 has 29 MA's),  
(Start: 44 @39407 has 4 MA's), (Start: 52 @39359 has 1 MA's), (67, 39260), (73, 39209), (87, 39113),  
(91, 39080), (95, 39062), (103, 39026), (110, 38993), (111, 38990),

Gene: RyeScarlet\_60 Start: 38926, Stop: 38297, Start Num: 9

Candidate Starts for RyeScarlet\_60:

(Start: 9 @38926 has 573 MA's), (Start: 21 @38833 has 22 MA's), (Start: 26 @38809 has 3 MA's),  
(Start: 37 @38785 has 23 MA's), (Start: 41 @38758 has 29 MA's), (Start: 45 @38743 has 1 MA's), (60,  
38647), (61, 38641), (67, 38602), (69, 38581), (80, 38515), (87, 38455), (91, 38422), (103, 38368),  
(110, 38338),

Gene: SKKY\_30 Start: 21113, Stop: 20442, Start Num: 13

Candidate Starts for SKKY\_30:

(Start: 13 @21113 has 45 MA's), (Start: 47 @20900 has 1 MA's), (Start: 53 @20861 has 4 MA's), (60,  
20804), (64, 20768), (67, 20759), (73, 20708), (93, 20573), (101, 20531), (113, 20474), (118, 20453),

Gene: STLscum\_57 Start: 40106, Stop: 39585, Start Num: 29

Candidate Starts for STLscum\_57:

(Start: 29 @40106 has 115 MA's), (Start: 37 @40082 has 23 MA's), (Start: 41 @40055 has 29 MA's),  
(Start: 44 @40043 has 4 MA's), (Start: 52 @39995 has 1 MA's), (73, 39845), (87, 39749), (91, 39716),  
(95, 39698), (103, 39662), (110, 39632),

Gene: Sabertooth\_55 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Sabertooth\_55:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's),  
(Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's),  
(Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95,  
37592), (101, 37565), (103, 37556), (119, 37490),

Gene: Sabia\_62 Start: 38907, Stop: 38248, Start Num: 9

Candidate Starts for Sabia\_62:

(Start: 9 @38907 has 573 MA's), (Start: 21 @38814 has 22 MA's), (Start: 33 @38760 has 2 MA's), (Start: 37 @38748 has 23 MA's), (Start: 41 @38721 has 29 MA's), (60, 38601), (76, 38493), (79, 38475), (80, 38469), (95, 38358), (103, 38322), (108, 38304), (110, 38292),

Gene: Sabinator\_61 Start: 38897, Stop: 38238, Start Num: 9

Candidate Starts for Sabinator\_61:

(Start: 9 @38897 has 573 MA's), (Start: 21 @38804 has 22 MA's), (Start: 33 @38750 has 2 MA's), (Start: 37 @38738 has 23 MA's), (Start: 41 @38711 has 29 MA's), (60, 38591), (76, 38483), (79, 38465), (80, 38459), (95, 38348), (103, 38312), (108, 38294), (110, 38282),

Gene: Sachima\_56 Start: 38719, Stop: 38207, Start Num: 26

Candidate Starts for Sachima\_56:

(Start: 9 @38836 has 573 MA's), (Start: 21 @38743 has 22 MA's), (Start: 26 @38719 has 3 MA's), (Start: 37 @38695 has 23 MA's), (Start: 41 @38668 has 29 MA's), (Start: 45 @38653 has 1 MA's), (60, 38557), (61, 38551), (67, 38512), (69, 38491), (87, 38365), (91, 38332), (103, 38278), (110, 38248),

Gene: Saftant\_40 Start: 29828, Stop: 30493, Start Num: 7

Candidate Starts for Saftant\_40:

(Start: 7 @29828 has 37 MA's), (Start: 9 @29843 has 573 MA's), (Start: 53 @30071 has 4 MA's), (60, 30128), (61, 30134), (63, 30155), (64, 30164), (73, 30224), (74, 30227), (76, 30236), (84, 30299), (107, 30422), (117, 30470),

Gene: Sagefire\_57 Start: 40104, Stop: 39526, Start Num: 20

Candidate Starts for Sagefire\_57:

(Start: 20 @40104 has 38 MA's), (Start: 29 @40047 has 115 MA's), (Start: 37 @40023 has 23 MA's), (Start: 41 @39996 has 29 MA's), (Start: 44 @39984 has 4 MA's), (Start: 52 @39936 has 1 MA's), (88, 39687), (91, 39657), (95, 39639), (103, 39603), (110, 39573),

Gene: Saintus\_54 Start: 34867, Stop: 34214, Start Num: 9

Candidate Starts for Saintus\_54:

(Start: 9 @34867 has 573 MA's), (Start: 21 @34774 has 22 MA's), (Start: 33 @34714 has 2 MA's), (Start: 37 @34702 has 23 MA's), (Start: 41 @34675 has 29 MA's), (51, 34618), (60, 34567), (61, 34561), (82, 34420), (83, 34405), (87, 34375), (91, 34342), (108, 34270), (109, 34261), (111, 34255), (117, 34231),

Gene: Salz\_58 Start: 38179, Stop: 37532, Start Num: 9

Candidate Starts for Salz\_58:

(Start: 9 @38179 has 573 MA's), (Start: 21 @38086 has 22 MA's), (Start: 37 @38032 has 23 MA's), (Start: 41 @38005 has 29 MA's), (Start: 47 @37975 has 1 MA's), (61, 37879), (69, 37819), (80, 37753), (82, 37738), (87, 37693), (90, 37684), (91, 37660), (103, 37606), (111, 37573),

Gene: Sandaddy\_53 Start: 38800, Stop: 38279, Start Num: 29

Candidate Starts for Sandaddy\_53:

(Start: 29 @38800 has 115 MA's), (Start: 37 @38776 has 23 MA's), (Start: 41 @38749 has 29 MA's), (Start: 44 @38737 has 4 MA's), (Start: 52 @38689 has 1 MA's), (73, 38539), (87, 38443), (88, 38440), (91, 38410), (95, 38392), (103, 38356), (110, 38326),

Gene: Sanya\_52 Start: 39090, Stop: 38569, Start Num: 29

Candidate Starts for Sanya\_52:

(Start: 29 @39090 has 115 MA's), (Start: 37 @39066 has 23 MA's), (Start: 41 @39039 has 29 MA's), (Start: 44 @39027 has 4 MA's), (Start: 52 @38979 has 1 MA's), (73, 38829), (87, 38733), (88, 38730), (91, 38700), (95, 38682), (103, 38646), (110, 38616), (114, 38601),

Gene: SarFire\_52 Start: 38362, Stop: 37841, Start Num: 29

Candidate Starts for SarFire\_52:

(Start: 29 @38362 has 115 MA's), (Start: 37 @38338 has 23 MA's), (Start: 41 @38311 has 29 MA's), (Start: 44 @38299 has 4 MA's), (Start: 52 @38251 has 1 MA's), (73, 38101), (87, 38005), (91, 37972), (95, 37954), (103, 37918), (110, 37888),

Gene: SarahRose\_39 Start: 28203, Stop: 28853, Start Num: 9

Candidate Starts for SarahRose\_39:

(Start: 7 @28188 has 37 MA's), (Start: 9 @28203 has 573 MA's), (11, 28206), (Start: 37 @28347 has 23 MA's), (Start: 53 @28431 has 4 MA's), (60, 28488), (61, 28494), (63, 28515), (71, 28560), (73, 28584), (76, 28596), (78, 28605), (79, 28614), (84, 28659), (87, 28680), (102, 28761), (107, 28782), (117, 28830),

Gene: SaturnRing\_59 Start: 38549, Stop: 37890, Start Num: 9

Candidate Starts for SaturnRing\_59:

(Start: 9 @38549 has 573 MA's), (Start: 21 @38456 has 22 MA's), (Start: 33 @38402 has 2 MA's), (Start: 37 @38390 has 23 MA's), (Start: 41 @38363 has 29 MA's), (Start: 45 @38348 has 1 MA's), (Start: 53 @38300 has 4 MA's), (60, 38243), (68, 38195), (79, 38117), (82, 38096), (83, 38081), (95, 38000), (103, 37964), (108, 37946), (119, 37898),

Gene: Scamp\_55 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Scamp\_55:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (101, 37565), (103, 37556), (119, 37490),

Gene: Scherzo\_59 Start: 39023, Stop: 38511, Start Num: 26

Candidate Starts for Scherzo\_59:

(Start: 9 @39140 has 573 MA's), (Start: 21 @39047 has 22 MA's), (Start: 26 @39023 has 3 MA's), (Start: 37 @38999 has 23 MA's), (Start: 41 @38972 has 29 MA's), (Start: 45 @38957 has 1 MA's), (60, 38861), (61, 38855), (67, 38816), (69, 38795), (87, 38669), (91, 38636), (103, 38582), (110, 38552),

Gene: Scorpia\_58 Start: 38590, Stop: 37928, Start Num: 9

Candidate Starts for Scorpia\_58:

(Start: 9 @38590 has 573 MA's), (Start: 21 @38497 has 22 MA's), (Start: 25 @38479 has 1 MA's), (Start: 33 @38437 has 2 MA's), (Start: 37 @38425 has 23 MA's), (Start: 41 @38398 has 29 MA's), (Start: 44 @38386 has 4 MA's), (Start: 45 @38383 has 1 MA's), (69, 38221), (80, 38155), (81, 38146), (83, 38125), (87, 38095), (89, 38089), (91, 38062), (101, 38017), (103, 38008), (108, 37990), (110, 37978), (111, 37975),

Gene: Scout\_58 Start: 37703, Stop: 37041, Start Num: 9

Candidate Starts for Scout\_58:

(Start: 9 @37703 has 573 MA's), (Start: 21 @37610 has 22 MA's), (Start: 33 @37556 has 2 MA's), (Start: 37 @37544 has 23 MA's), (Start: 41 @37517 has 29 MA's), (Start: 45 @37502 has 1 MA's), (Start: 53 @37454 has 4 MA's), (60, 37397), (68, 37349), (76, 37289), (80, 37265), (82, 37250), (83, 37235), (87, 37205), (95, 37154), (103, 37118), (108, 37100), (119, 37052),

Gene: Scowl\_55 Start: 39191, Stop: 38670, Start Num: 29

Candidate Starts for Scowl\_55:

(Start: 29 @39191 has 115 MA's), (Start: 37 @39167 has 23 MA's), (Start: 41 @39140 has 29 MA's), (Start: 44 @39128 has 4 MA's), (Start: 52 @39080 has 1 MA's), (73, 38930), (87, 38834), (91, 38801), (95, 38783), (99, 38771), (103, 38747), (110, 38717),

Gene: Seabiscuit\_57 Start: 38976, Stop: 38455, Start Num: 29

Candidate Starts for Seabiscuit\_57:

(Start: 29 @38976 has 115 MA's), (Start: 37 @38952 has 23 MA's), (Start: 41 @38925 has 29 MA's), (Start: 44 @38913 has 4 MA's), (Start: 52 @38865 has 1 MA's), (67, 38766), (73, 38715), (87, 38619), (91, 38586), (95, 38568), (103, 38532), (110, 38502),

Gene: Seanderson\_56 Start: 40628, Stop: 40047, Start Num: 20

Candidate Starts for Seanderson\_56:

(Start: 20 @40628 has 38 MA's), (Start: 29 @40571 has 115 MA's), (Start: 37 @40547 has 23 MA's), (Start: 41 @40520 has 29 MA's), (Start: 44 @40508 has 4 MA's), (Start: 52 @40460 has 1 MA's), (67, 40361), (73, 40310), (87, 40214), (91, 40181), (95, 40163), (103, 40127), (110, 40094), (111, 40091),

Gene: SemperFi\_60 Start: 39324, Stop: 38692, Start Num: 9

Candidate Starts for SemperFi\_60:

(Start: 9 @39324 has 573 MA's), (Start: 21 @39231 has 22 MA's), (Start: 37 @39177 has 23 MA's), (Start: 47 @39120 has 1 MA's), (69, 38976), (79, 38916), (87, 38850), (91, 38817), (95, 38799), (103, 38763),

Gene: SenorClean\_53 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for SenorClean\_53:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Serenity\_60 Start: 38472, Stop: 37840, Start Num: 9

Candidate Starts for Serenity\_60:

(Start: 9 @38472 has 573 MA's), (Start: 21 @38379 has 22 MA's), (Start: 24 @38364 has 2 MA's), (Start: 37 @38325 has 23 MA's), (Start: 41 @38298 has 29 MA's), (Start: 47 @38268 has 1 MA's), (60, 38190), (69, 38124), (79, 38064), (82, 38043), (87, 37998), (91, 37965), (103, 37911),

Gene: Severus\_54 Start: 37273, Stop: 36614, Start Num: 9

Candidate Starts for Severus\_54:

(Start: 9 @37273 has 573 MA's), (Start: 21 @37180 has 22 MA's), (Start: 37 @37114 has 23 MA's), (Start: 41 @37087 has 29 MA's), (Start: 53 @37024 has 4 MA's), (60, 36967), (68, 36919), (82, 36820), (83, 36805), (101, 36697), (103, 36688), (110, 36658), (119, 36622),

Gene: Shaka\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Shaka\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Sham4\_59 Start: 38207, Stop: 37560, Start Num: 9

Candidate Starts for Sham4\_59:

(Start: 9 @38207 has 573 MA's), (Start: 21 @38114 has 22 MA's), (Start: 37 @38060 has 23 MA's), (Start: 41 @38033 has 29 MA's), (Start: 47 @38003 has 1 MA's), (61, 37907), (69, 37847), (80, 37781), (82, 37766), (87, 37721), (90, 37712), (91, 37688), (103, 37634), (111, 37601),

Gene: Shapes\_59 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for Shapes\_59:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 53 @37884 has 4 MA's), (60, 37827), (68, 37779), (76, 37719), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (101, 37557), (103, 37548), (108, 37530), (110, 37518), (119, 37482),

Gene: ShayRa\_66 Start: 38447, Stop: 37833, Start Num: 13

Candidate Starts for ShayRa\_66:

(Start: 9 @38465 has 573 MA's), (Start: 13 @38447 has 45 MA's), (Start: 21 @38372 has 22 MA's), (Start: 41 @38294 has 29 MA's), (Start: 45 @38279 has 1 MA's), (Start: 47 @38264 has 1 MA's), (66, 38144), (67, 38141), (78, 38069), (82, 38039), (91, 37961), (95, 37943), (103, 37907),

Gene: SheaKeira\_57 Start: 38561, Stop: 37935, Start Num: 9

Candidate Starts for SheaKeira\_57:

(Start: 9 @38561 has 573 MA's), (Start: 21 @38468 has 22 MA's), (Start: 37 @38420 has 23 MA's), (Start: 41 @38393 has 29 MA's), (60, 38285), (61, 38279), (69, 38219), (76, 38177), (82, 38138), (87, 38093), (103, 38006),

Gene: Sheen\_57 Start: 40842, Stop: 40195, Start Num: 9

Candidate Starts for Sheen\_57:

(Start: 9 @40842 has 573 MA's), (Start: 21 @40749 has 22 MA's), (Start: 24 @40734 has 2 MA's), (Start: 29 @40707 has 115 MA's), (35, 40692), (Start: 41 @40656 has 29 MA's), (Start: 44 @40644 has 4 MA's), (Start: 45 @40641 has 1 MA's), (Start: 53 @40593 has 4 MA's), (60, 40548), (69, 40482), (76, 40440), (80, 40416), (83, 40386), (92, 40320), (101, 40278), (103, 40269), (117, 40212), (119, 40203),

Gene: SheldonCooper\_56 Start: 38543, Stop: 37884, Start Num: 9

Candidate Starts for SheldonCooper\_56:

(Start: 9 @38543 has 573 MA's), (Start: 21 @38450 has 22 MA's), (Start: 33 @38396 has 2 MA's), (Start: 37 @38384 has 23 MA's), (Start: 41 @38357 has 29 MA's), (Start: 45 @38342 has 1 MA's), (60, 38237), (79, 38111), (82, 38090), (83, 38075), (95, 37994), (101, 37967), (103, 37958), (119, 37892),

Gene: ShortQueendom\_49 Start: 36257, Stop: 35676, Start Num: 20

Candidate Starts for ShortQueendom\_49:

(Start: 20 @36257 has 38 MA's), (Start: 29 @36200 has 115 MA's), (Start: 37 @36176 has 23 MA's), (Start: 41 @36149 has 29 MA's), (Start: 44 @36137 has 4 MA's), (Start: 52 @36089 has 1 MA's), (67, 35990), (73, 35939), (87, 35843), (91, 35810), (95, 35792), (103, 35756), (110, 35726), (111, 35723),

Gene: Shuman\_48 Start: 35234, Stop: 34575, Start Num: 9

Candidate Starts for Shuman\_48:

(Start: 9 @35234 has 573 MA's), (Start: 26 @35111 has 3 MA's), (Start: 37 @35075 has 23 MA's), (Start: 41 @35048 has 29 MA's), (Start: 47 @35018 has 1 MA's), (Start: 52 @34988 has 1 MA's), (Start: 53 @34985 has 4 MA's), (54, 34979), (60, 34928), (67, 34883), (69, 34862), (80, 34796), (108, 34631), (111, 34616),

Gene: Shygu2\_54 Start: 38141, Stop: 37482, Start Num: 9

Candidate Starts for Shygu2\_54:

(Start: 9 @38141 has 573 MA's), (Start: 21 @38048 has 22 MA's), (Start: 25 @38030 has 1 MA's), (Start: 33 @37994 has 2 MA's), (Start: 37 @37982 has 23 MA's), (Start: 41 @37955 has 29 MA's), (Start: 45 @37940 has 1 MA's), (60, 37835), (79, 37709), (80, 37703), (82, 37688), (83, 37673), (95, 37592), (103, 37556), (119, 37490),

Gene: Sibs6\_57 Start: 37930, Stop: 37352, Start Num: 20

Candidate Starts for Sibs6\_57:

(Start: 20 @37930 has 38 MA's), (Start: 29 @37873 has 115 MA's), (Start: 37 @37849 has 23 MA's), (Start: 41 @37822 has 29 MA's), (Start: 44 @37810 has 4 MA's), (Start: 52 @37762 has 1 MA's), (73, 37612), (87, 37516), (88, 37513), (91, 37483), (95, 37465), (103, 37429), (110, 37399),

Gene: SkiPole\_59 Start: 39713, Stop: 39255, Start Num: 44

Candidate Starts for SkiPole\_59:

(Start: 29 @39776 has 115 MA's), (Start: 37 @39752 has 23 MA's), (Start: 41 @39725 has 29 MA's), (Start: 44 @39713 has 4 MA's), (Start: 52 @39665 has 1 MA's), (73, 39515), (87, 39419), (91, 39386), (95, 39368), (103, 39332), (110, 39302),

Gene: Skipitt\_54 Start: 38022, Stop: 37474, Start Num: 25

Candidate Starts for Skipitt\_54:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 25 @38022 has 1 MA's), (Start: 33 @37986 has 2 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 45 @37932 has 1 MA's), (60, 37827), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (95, 37584), (101, 37557), (103, 37548), (119, 37482),

Gene: Sknot\_60 Start: 38754, Stop: 38122, Start Num: 9

Candidate Starts for Sknot\_60:

(Start: 9 @38754 has 573 MA's), (Start: 21 @38661 has 22 MA's), (Start: 37 @38607 has 23 MA's), (Start: 47 @38550 has 1 MA's), (57, 38496), (60, 38472), (61, 38466), (69, 38406), (79, 38346), (82, 38325), (87, 38280), (91, 38247), (103, 38193),

Gene: Slagathor\_57 Start: 40203, Stop: 39679, Start Num: 29

Candidate Starts for Slagathor\_57:

(Start: 12 @40326 has 28 MA's), (Start: 29 @40203 has 115 MA's), (Start: 41 @40152 has 29 MA's), (Start: 44 @40140 has 4 MA's), (63, 40011), (68, 39990), (69, 39972), (87, 39846), (88, 39843), (91, 39813), (95, 39795), (103, 39759), (110, 39726), (111, 39723),

Gene: Smairt\_57 Start: 40436, Stop: 39912, Start Num: 29

Candidate Starts for Smairt\_57:

(Start: 29 @40436 has 115 MA's), (Start: 37 @40412 has 23 MA's), (Start: 41 @40385 has 29 MA's), (Start: 44 @40373 has 4 MA's), (Start: 52 @40325 has 1 MA's), (67, 40226), (73, 40175), (87, 40079), (91, 40046), (95, 40028), (103, 39992), (110, 39959), (111, 39956),

Gene: Smeadley\_59 Start: 38060, Stop: 37407, Start Num: 9

Candidate Starts for Smeadley\_59:

(Start: 9 @38060 has 573 MA's), (Start: 21 @37967 has 22 MA's), (Start: 33 @37907 has 2 MA's), (Start: 37 @37895 has 23 MA's), (Start: 41 @37868 has 29 MA's), (51, 37811), (60, 37760), (61, 37754), (82, 37613), (83, 37598), (87, 37568), (91, 37535), (108, 37463), (109, 37454), (111, 37448), (117, 37424),

Gene: Smeagan\_62 Start: 39617, Stop: 38985, Start Num: 9

Candidate Starts for Smeagan\_62:

(Start: 9 @39617 has 573 MA's), (Start: 21 @39524 has 22 MA's), (Start: 37 @39470 has 23 MA's), (Start: 45 @39428 has 1 MA's), (Start: 47 @39413 has 1 MA's), (61, 39329), (69, 39269), (79, 39209), (87, 39143), (91, 39110), (103, 39056),

Gene: Smeagol\_57 Start: 40430, Stop: 39909, Start Num: 29

Candidate Starts for Smeagol\_57:

(Start: 29 @40430 has 115 MA's), (Start: 37 @40406 has 23 MA's), (Start: 41 @40379 has 29 MA's), (Start: 44 @40367 has 4 MA's), (Start: 52 @40319 has 1 MA's), (73, 40169), (87, 40073), (91, 40040), (95, 40022), (103, 39986), (110, 39956),



Gene: SmellyB\_60 Start: 37718, Stop: 37086, Start Num: 9

Candidate Starts for SmellyB\_60:

(Start: 9 @37718 has 573 MA's), (Start: 21 @37625 has 22 MA's), (Start: 37 @37571 has 23 MA's), (Start: 47 @37514 has 1 MA's), (60, 37436), (69, 37370), (82, 37289), (87, 37244), (91, 37211), (95, 37193), (103, 37157), (110, 37127), (111, 37124),

Gene: SnapTap\_59 Start: 39135, Stop: 38503, Start Num: 9

Candidate Starts for SnapTap\_59:

(Start: 9 @39135 has 573 MA's), (Start: 21 @39042 has 22 MA's), (Start: 37 @38988 has 23 MA's), (Start: 47 @38931 has 1 MA's), (69, 38787), (79, 38727), (87, 38661), (91, 38628), (95, 38610), (103, 38574),

Gene: Snape\_59 Start: 38199, Stop: 37552, Start Num: 9

Candidate Starts for Snape\_59:

(Start: 9 @38199 has 573 MA's), (Start: 21 @38106 has 22 MA's), (Start: 37 @38052 has 23 MA's), (Start: 41 @38025 has 29 MA's), (Start: 47 @37995 has 1 MA's), (61, 37899), (69, 37839), (80, 37773), (82, 37758), (87, 37713), (90, 37704), (91, 37680), (103, 37626), (111, 37593),

Gene: Snazzy\_54 Start: 38809, Stop: 38285, Start Num: 29

Candidate Starts for Snazzy\_54:

(Start: 29 @38809 has 115 MA's), (Start: 37 @38785 has 23 MA's), (Start: 41 @38758 has 29 MA's), (Start: 44 @38746 has 4 MA's), (Start: 52 @38698 has 1 MA's), (73, 38548), (87, 38452), (88, 38449), (91, 38419), (95, 38401), (103, 38365), (110, 38335), (111, 38332),

Gene: Snickers\_62 Start: 38872, Stop: 38213, Start Num: 9

Candidate Starts for Snickers\_62:

(Start: 9 @38872 has 573 MA's), (Start: 21 @38779 has 22 MA's), (Start: 33 @38725 has 2 MA's), (Start: 37 @38713 has 23 MA's), (Start: 41 @38686 has 29 MA's), (60, 38566), (76, 38458), (79, 38440), (80, 38434), (95, 38323), (103, 38287), (108, 38269), (110, 38257),

Gene: Snorlax\_39 Start: 28207, Stop: 28857, Start Num: 9

Candidate Starts for Snorlax\_39:

(Start: 7 @28192 has 37 MA's), (Start: 9 @28207 has 573 MA's), (11, 28210), (Start: 37 @28351 has 23 MA's), (Start: 53 @28435 has 4 MA's), (60, 28492), (61, 28498), (63, 28519), (71, 28564), (73, 28588), (76, 28600), (78, 28609), (79, 28618), (84, 28663), (87, 28684), (102, 28765), (107, 28786), (117, 28834),

Gene: SoYo\_62 Start: 38810, Stop: 38151, Start Num: 9

Candidate Starts for SoYo\_62:

(Start: 9 @38810 has 573 MA's), (Start: 21 @38717 has 22 MA's), (Start: 33 @38663 has 2 MA's), (Start: 37 @38651 has 23 MA's), (Start: 41 @38624 has 29 MA's), (60, 38504), (76, 38396), (79, 38378), (80, 38372), (95, 38261), (103, 38225), (108, 38207), (110, 38195),

Gene: SoilDragon\_62 Start: 38346, Stop: 37687, Start Num: 9

Candidate Starts for SoilDragon\_62:

(Start: 9 @38346 has 573 MA's), (Start: 21 @38253 has 22 MA's), (Start: 33 @38199 has 2 MA's), (Start: 37 @38187 has 23 MA's), (Start: 41 @38160 has 29 MA's), (60, 38040), (76, 37932), (79, 37914), (80, 37908), (95, 37797), (103, 37761), (108, 37743), (110, 37731),

Gene: Solid\_30 Start: 21344, Stop: 20673, Start Num: 13

Candidate Starts for Solid\_30:

(Start: 13 @21344 has 45 MA's), (Start: 47 @21131 has 1 MA's), (Start: 53 @21092 has 4 MA's), (64, 20999), (67, 20990), (69, 20969), (73, 20939), (93, 20804), (100, 20768), (101, 20762), (113, 20705), (118, 20684),

Gene: Solon\_53 Start: 38687, Stop: 38163, Start Num: 29

Candidate Starts for Solon\_53:

(Start: 29 @38687 has 115 MA's), (Start: 37 @38663 has 23 MA's), (Start: 41 @38636 has 29 MA's), (Start: 44 @38624 has 4 MA's), (Start: 52 @38576 has 1 MA's), (67, 38477), (73, 38426), (87, 38330), (91, 38297), (95, 38279), (103, 38243), (110, 38210), (111, 38207),

Gene: SororFago\_60 Start: 39900, Stop: 39274, Start Num: 9

Candidate Starts for SororFago\_60:

(Start: 9 @39900 has 573 MA's), (16, 39864), (Start: 21 @39807 has 22 MA's), (Start: 37 @39759 has 23 MA's), (Start: 47 @39702 has 1 MA's), (60, 39624), (69, 39558), (76, 39516), (82, 39477), (84, 39453), (87, 39432), (103, 39345), (111, 39312),

Gene: Sorpresa\_53 Start: 38802, Stop: 38281, Start Num: 29

Candidate Starts for Sorpresa\_53:

(Start: 29 @38802 has 115 MA's), (Start: 37 @38778 has 23 MA's), (Start: 41 @38751 has 29 MA's), (Start: 44 @38739 has 4 MA's), (Start: 52 @38691 has 1 MA's), (73, 38541), (87, 38445), (88, 38442), (91, 38412), (95, 38394), (103, 38358), (110, 38328),

Gene: Soshari\_64 Start: 38922, Stop: 38263, Start Num: 9

Candidate Starts for Soshari\_64:

(Start: 9 @38922 has 573 MA's), (Start: 21 @38829 has 22 MA's), (Start: 33 @38775 has 2 MA's), (Start: 37 @38763 has 23 MA's), (Start: 41 @38736 has 29 MA's), (60, 38616), (76, 38508), (79, 38490), (80, 38484), (95, 38373), (103, 38337), (108, 38319), (110, 38307),

Gene: Soups\_66 Start: 38728, Stop: 38096, Start Num: 9

Candidate Starts for Soups\_66:

(Start: 9 @38728 has 573 MA's), (Start: 13 @38710 has 45 MA's), (Start: 21 @38635 has 22 MA's), (Start: 41 @38557 has 29 MA's), (Start: 45 @38542 has 1 MA's), (Start: 47 @38527 has 1 MA's), (66, 38407), (67, 38404), (78, 38332), (82, 38302), (91, 38224), (95, 38206), (103, 38170),

Gene: South40\_39 Start: 28378, Stop: 29028, Start Num: 9

Candidate Starts for South40\_39:

(Start: 7 @28363 has 37 MA's), (Start: 9 @28378 has 573 MA's), (11, 28381), (Start: 53 @28606 has 4 MA's), (60, 28663), (61, 28669), (63, 28690), (64, 28699), (73, 28759), (76, 28771), (78, 28780), (79, 28789), (84, 28834), (87, 28855), (102, 28936), (107, 28957), (117, 29005),

Gene: Sparxx\_56 Start: 38134, Stop: 37475, Start Num: 9

Candidate Starts for Sparxx\_56:

(Start: 9 @38134 has 573 MA's), (Start: 21 @38041 has 22 MA's), (Start: 25 @38023 has 1 MA's), (Start: 33 @37987 has 2 MA's), (Start: 37 @37975 has 23 MA's), (Start: 41 @37948 has 29 MA's), (Start: 45 @37933 has 1 MA's), (60, 37828), (79, 37702), (80, 37696), (82, 37681), (83, 37666), (95, 37585), (101, 37558), (103, 37549), (119, 37483),

Gene: Speedwell\_45 Start: 31124, Stop: 31789, Start Num: 7

Candidate Starts for Speedwell\_45:

(Start: 7 @31124 has 37 MA's), (Start: 9 @31139 has 573 MA's), (22, 31232), (Start: 53 @31367 has 4 MA's), (60, 31424), (61, 31430), (63, 31451), (73, 31520), (76, 31532), (80, 31556), (84, 31595), (87, 31616), (107, 31718),

Gene: Spike509\_62 Start: 38923, Stop: 38264, Start Num: 9

Candidate Starts for Spike509\_62:

(Start: 9 @38923 has 573 MA's), (Start: 21 @38830 has 22 MA's), (Start: 33 @38776 has 2 MA's), (Start: 37 @38764 has 23 MA's), (Start: 41 @38737 has 29 MA's), (60, 38617), (76, 38509), (80, 38485), (103, 38338), (108, 38320), (110, 38308),

Gene: SpikeBT\_54 Start: 38879, Stop: 38358, Start Num: 29

Candidate Starts for SpikeBT\_54:

(Start: 12 @39002 has 28 MA's), (Start: 29 @38879 has 115 MA's), (Start: 41 @38828 has 29 MA's), (Start: 44 @38816 has 4 MA's), (58, 38735), (63, 38687), (68, 38666), (69, 38648), (79, 38588), (87, 38522), (91, 38489), (95, 38471), (103, 38435), (110, 38405),

Gene: Spino\_54 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for Spino\_54:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's), (Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: Spooks\_28 Start: 19747, Stop: 19046, Start Num: 8

Candidate Starts for Spooks\_28:

(Start: 8 @19747 has 1 MA's), (16, 19705), (49, 19474), (70, 19330), (94, 19168), (103, 19123),

Gene: Spouty\_59 Start: 38920, Stop: 38291, Start Num: 9

Candidate Starts for Spouty\_59:

(Start: 9 @38920 has 573 MA's), (Start: 21 @38827 has 22 MA's), (Start: 26 @38803 has 3 MA's), (Start: 37 @38779 has 23 MA's), (Start: 41 @38752 has 29 MA's), (Start: 45 @38737 has 1 MA's), (60, 38641), (61, 38635), (67, 38596), (69, 38575), (80, 38509), (87, 38449), (91, 38416), (103, 38362),

Gene: SqueakyClean\_39 Start: 29137, Stop: 29796, Start Num: 6

Candidate Starts for SqueakyClean\_39:

(Start: 6 @29137 has 32 MA's), (15, 29185), (22, 29248), (Start: 43 @29338 has 1 MA's), (63, 29467), (82, 29587), (84, 29611), (87, 29632), (102, 29713),

Gene: Squee\_55 Start: 39447, Stop: 38869, Start Num: 20

Candidate Starts for Squee\_55:

(Start: 20 @39447 has 38 MA's), (Start: 29 @39390 has 115 MA's), (Start: 37 @39366 has 23 MA's), (39, 39354), (Start: 41 @39339 has 29 MA's), (Start: 44 @39327 has 4 MA's), (Start: 52 @39279 has 1 MA's), (67, 39180), (73, 39129), (87, 39033), (91, 39000), (95, 38982), (103, 38946), (110, 38916),

Gene: StCroix\_47 Start: 35293, Stop: 34634, Start Num: 9

Candidate Starts for StCroix\_47:

(Start: 9 @35293 has 573 MA's), (Start: 26 @35170 has 3 MA's), (Start: 37 @35134 has 23 MA's), (Start: 41 @35107 has 29 MA's), (Start: 47 @35077 has 1 MA's), (Start: 52 @35047 has 1 MA's), (Start: 53 @35044 has 4 MA's), (54, 35038), (60, 34987), (67, 34942), (69, 34921), (79, 34861), (80, 34855), (108, 34690), (111, 34675),

Gene: Stagni\_62 Start: 38901, Stop: 38242, Start Num: 9

Candidate Starts for Stagni\_62:

(Start: 9 @38901 has 573 MA's), (Start: 21 @38808 has 22 MA's), (Start: 33 @38754 has 2 MA's), (Start: 37 @38742 has 23 MA's), (Start: 41 @38715 has 29 MA's), (60, 38595), (76, 38487), (79, 38469), (80, 38463), (95, 38352), (103, 38316), (108, 38298), (110, 38286),

Gene: StarStuff\_61 Start: 38903, Stop: 38271, Start Num: 9

Candidate Starts for StarStuff\_61:

(Start: 9 @38903 has 573 MA's), (Start: 21 @38810 has 22 MA's), (Start: 37 @38756 has 23 MA's), (Start: 41 @38729 has 29 MA's), (Start: 47 @38699 has 1 MA's), (60, 38621), (61, 38615), (69, 38555), (82, 38474), (87, 38429), (91, 38396), (95, 38378), (103, 38342),

Gene: Stasia\_54 Start: 38017, Stop: 37358, Start Num: 9

Candidate Starts for Stasia\_54:

(Start: 9 @38017 has 573 MA's), (Start: 21 @37924 has 22 MA's), (Start: 33 @37870 has 2 MA's), (Start: 37 @37858 has 23 MA's), (Start: 41 @37831 has 29 MA's), (Start: 45 @37816 has 1 MA's), (60, 37711), (69, 37645), (80, 37579), (82, 37564), (83, 37549), (87, 37519), (95, 37468), (103, 37432), (119, 37366),

Gene: Steamy\_55 Start: 38632, Stop: 38003, Start Num: 9

Candidate Starts for Steamy\_55:

(Start: 9 @38632 has 573 MA's), (Start: 21 @38539 has 22 MA's), (Start: 37 @38488 has 23 MA's), (Start: 41 @38461 has 29 MA's), (60, 38353), (61, 38347), (69, 38287), (76, 38245), (79, 38227), (82, 38206), (87, 38161), (91, 38128), (95, 38110), (103, 38074), (110, 38044), (111, 38041),

Gene: Stella\_61 Start: 31604, Stop: 30972, Start Num: 9

Candidate Starts for Stella\_61:

(Start: 9 @31604 has 573 MA's), (Start: 13 @31586 has 45 MA's), (15, 31574), (Start: 47 @31406 has 1 MA's), (50, 31382), (59, 31343), (67, 31280), (79, 31199), (80, 31193), (87, 31133), (99, 31070),

Gene: StepMih\_62 Start: 38892, Stop: 38233, Start Num: 9

Candidate Starts for StepMih\_62:

(Start: 9 @38892 has 573 MA's), (Start: 21 @38799 has 22 MA's), (Start: 33 @38745 has 2 MA's), (Start: 37 @38733 has 23 MA's), (Start: 41 @38706 has 29 MA's), (60, 38586), (76, 38478), (79, 38460), (80, 38454), (95, 38343), (103, 38307), (108, 38289), (110, 38277),

Gene: Stephig9\_59 Start: 38168, Stop: 37515, Start Num: 9

Candidate Starts for Stephig9\_59:

(Start: 9 @38168 has 573 MA's), (Start: 21 @38075 has 22 MA's), (Start: 33 @38015 has 2 MA's), (Start: 37 @38003 has 23 MA's), (Start: 41 @37976 has 29 MA's), (51, 37919), (60, 37868), (61, 37862), (82, 37721), (83, 37706), (87, 37676), (91, 37643), (108, 37571), (109, 37562), (111, 37556), (117, 37532),

Gene: StewieG\_53 Start: 36207, Stop: 35686, Start Num: 29

Candidate Starts for StewieG\_53:

(Start: 29 @36207 has 115 MA's), (Start: 37 @36183 has 23 MA's), (Start: 41 @36156 has 29 MA's), (Start: 44 @36144 has 4 MA's), (Start: 52 @36096 has 1 MA's), (67, 35997), (73, 35946), (87, 35850), (91, 35817), (95, 35799), (103, 35763), (110, 35733),

Gene: Stink\_53 Start: 37833, Stop: 37174, Start Num: 9

Candidate Starts for Stink\_53:

(Start: 9 @37833 has 573 MA's), (Start: 21 @37740 has 22 MA's), (Start: 25 @37722 has 1 MA's), (Start: 33 @37686 has 2 MA's), (Start: 37 @37674 has 23 MA's), (Start: 41 @37647 has 29 MA's), (Start: 45 @37632 has 1 MA's), (60, 37527), (79, 37401), (82, 37380), (83, 37365), (95, 37284), (101, 37257), (103, 37248), (119, 37182),

Gene: Stormborn\_30 Start: 20951, Stop: 20280, Start Num: 13

Candidate Starts for Stormborn\_30:

(Start: 4 @21005 has 1 MA's), (Start: 13 @20951 has 45 MA's), (Start: 47 @20738 has 1 MA's), (Start: 53 @20699 has 4 MA's), (64, 20606), (67, 20597), (69, 20576), (73, 20546), (93, 20411), (113, 20312), (118, 20291),

Gene: StrongArm\_53 Start: 39886, Stop: 39365, Start Num: 29

Candidate Starts for StrongArm\_53:

(Start: 29 @39886 has 115 MA's), (Start: 37 @39862 has 23 MA's), (Start: 41 @39835 has 29 MA's), (Start: 44 @39823 has 4 MA's), (Start: 52 @39775 has 1 MA's), (67, 39676), (73, 39625), (87, 39529), (88, 39526), (91, 39496), (95, 39478), (98, 39469), (103, 39442), (110, 39412), (111, 39409),

Gene: Strosahl\_66 Start: 38284, Stop: 37652, Start Num: 9

Candidate Starts for Strosahl\_66:

(Start: 9 @38284 has 573 MA's), (Start: 13 @38266 has 45 MA's), (Start: 21 @38191 has 22 MA's), (Start: 41 @38113 has 29 MA's), (Start: 45 @38098 has 1 MA's), (Start: 47 @38083 has 1 MA's), (66, 37963), (67, 37960), (78, 37888), (82, 37858), (91, 37780), (103, 37726),

Gene: Success\_29 Start: 18965, Stop: 18267, Start Num: 8

Candidate Starts for Success\_29:

(Start: 8 @18965 has 1 MA's), (16, 18923), (49, 18692), (79, 18494), (85, 18446), (91, 18398), (94, 18389), (103, 18344), (109, 18317), (120, 18272),

Gene: Sujidade\_40 Start: 28920, Stop: 29585, Start Num: 7

Candidate Starts for Sujidade\_40:

(Start: 7 @28920 has 37 MA's), (Start: 9 @28935 has 573 MA's), (11, 28938), (Start: 53 @29163 has 4 MA's), (60, 29220), (61, 29226), (63, 29247), (64, 29256), (71, 29292), (73, 29316), (76, 29328), (78, 29337), (79, 29346), (84, 29391), (87, 29412), (102, 29493), (107, 29514), (117, 29562),

Gene: Sumter\_51 Start: 39346, Stop: 38822, Start Num: 29

Candidate Starts for Sumter\_51:

(Start: 29 @39346 has 115 MA's), (Start: 37 @39322 has 23 MA's), (Start: 41 @39295 has 29 MA's), (Start: 44 @39283 has 4 MA's), (Start: 52 @39235 has 1 MA's), (67, 39136), (73, 39085), (87, 38989), (88, 38986), (91, 38956), (95, 38938), (103, 38902), (110, 38869), (111, 38866),

Gene: Sunhee\_61 Start: 38200, Stop: 37715, Start Num: 37

Candidate Starts for Sunhee\_61:

(Start: 9 @38341 has 573 MA's), (Start: 21 @38248 has 22 MA's), (Start: 37 @38200 has 23 MA's), (60, 38065), (69, 37999), (76, 37957), (82, 37918), (84, 37894), (87, 37873), (103, 37786), (111, 37753),

Gene: SunsetPointe\_39 Start: 27966, Stop: 28472, Start Num: 37

Candidate Starts for SunsetPointe\_39:

(Start: 7 @27807 has 37 MA's), (Start: 9 @27822 has 573 MA's), (11, 27825), (Start: 37 @27966 has 23 MA's), (Start: 53 @28050 has 4 MA's), (60, 28107), (61, 28113), (63, 28134), (64, 28143), (71, 28179), (73, 28203), (76, 28215), (78, 28224), (79, 28233), (84, 28278), (102, 28380), (107, 28401), (117, 28449),

Gene: Sunshine924\_56 Start: 38541, Stop: 37960, Start Num: 20

Candidate Starts for Sunshine924\_56:

(Start: 20 @38541 has 38 MA's), (Start: 29 @38484 has 115 MA's), (Start: 37 @38460 has 23 MA's), (Start: 41 @38433 has 29 MA's), (Start: 44 @38421 has 4 MA's), (Start: 52 @38373 has 1 MA's), (73, 38223), (87, 38127), (91, 38094), (95, 38076), (103, 38040), (110, 38007), (111, 38004),

Gene: SuperAwesome\_60 Start: 37723, Stop: 37091, Start Num: 9

Candidate Starts for SuperAwesome\_60:

(Start: 9 @37723 has 573 MA's), (Start: 21 @37630 has 22 MA's), (Start: 37 @37576 has 23 MA's), (Start: 47 @37519 has 1 MA's), (60, 37441), (69, 37375), (82, 37294), (87, 37249), (91, 37216), (95, 37198), (103, 37162), (110, 37132), (111, 37129),

Gene: SuperCallie99\_58 Start: 37605, Stop: 36973, Start Num: 9

Candidate Starts for SuperCallie99\_58:

(Start: 9 @37605 has 573 MA's), (Start: 21 @37512 has 22 MA's), (Start: 37 @37458 has 23 MA's), (Start: 47 @37401 has 1 MA's), (60, 37323), (69, 37257), (82, 37176), (87, 37131), (91, 37098), (95, 37080), (103, 37044), (110, 37014), (111, 37011),

Gene: Superchunk\_57 Start: 37576, Stop: 36944, Start Num: 9

Candidate Starts for Superchunk\_57:

(Start: 9 @37576 has 573 MA's), (Start: 21 @37483 has 22 MA's), (Start: 37 @37429 has 23 MA's), (Start: 41 @37402 has 29 MA's), (Start: 47 @37372 has 1 MA's), (60, 37294), (76, 37186), (81, 37153), (82, 37147), (83, 37132), (87, 37102), (90, 37093), (91, 37069), (95, 37051), (103, 37015),

Gene: Supernova\_30 Start: 21115, Stop: 20444, Start Num: 13

Candidate Starts for Supernova\_30:

(Start: 13 @21115 has 45 MA's), (Start: 47 @20902 has 1 MA's), (Start: 53 @20863 has 4 MA's), (64, 20770), (67, 20761), (69, 20740), (73, 20710), (93, 20575), (101, 20533), (113, 20476), (118, 20455),

Gene: Superstar\_43 Start: 30182, Stop: 30844, Start Num: 6

Candidate Starts for Superstar\_43:

(Start: 6 @30182 has 32 MA's), (15, 30230), (22, 30293), (Start: 43 @30383 has 1 MA's), (63, 30512), (64, 30521), (82, 30632), (84, 30656), (87, 30677), (107, 30776), (109, 30791), (115, 30812), (117, 30824),

Gene: Swann\_48 Start: 35278, Stop: 34619, Start Num: 9

Candidate Starts for Swann\_48:

(Start: 9 @35278 has 573 MA's), (Start: 26 @35155 has 3 MA's), (Start: 37 @35119 has 23 MA's), (Start: 41 @35092 has 29 MA's), (Start: 47 @35062 has 1 MA's), (Start: 52 @35032 has 1 MA's), (Start: 53 @35029 has 4 MA's), (54, 35023), (60, 34972), (67, 34927), (69, 34906), (79, 34846), (80, 34840), (108, 34675), (111, 34660),

Gene: SweetiePie\_59 Start: 39267, Stop: 38635, Start Num: 9

Candidate Starts for SweetiePie\_59:

(Start: 9 @39267 has 573 MA's), (Start: 21 @39174 has 22 MA's), (Start: 37 @39120 has 23 MA's), (Start: 47 @39063 has 1 MA's), (69, 38919), (79, 38859), (87, 38793), (91, 38760), (95, 38742), (103, 38706),

Gene: SwirlSquare\_64 Start: 38498, Stop: 37866, Start Num: 9

Candidate Starts for SwirlSquare\_64:

(Start: 9 @38498 has 573 MA's), (Start: 21 @38405 has 22 MA's), (Start: 37 @38351 has 23 MA's), (Start: 41 @38324 has 29 MA's), (Start: 47 @38294 has 1 MA's), (61, 38210), (69, 38150), (79, 38090), (87, 38024), (95, 37973), (103, 37937),

Gene: Swirley\_55 Start: 38646, Stop: 37987, Start Num: 9

Candidate Starts for Swirley\_55:

(Start: 9 @38646 has 573 MA's), (Start: 21 @38553 has 22 MA's), (Start: 25 @38535 has 1 MA's), (Start: 33 @38493 has 2 MA's), (Start: 37 @38481 has 23 MA's), (Start: 41 @38454 has 29 MA's), (Start: 44 @38442 has 4 MA's), (80, 38214), (81, 38205), (83, 38184), (86, 38169), (87, 38154), (89, 38148), (91, 38121), (95, 38103), (101, 38076), (103, 38067), (108, 38049), (110, 38037), (111,

38034),

Gene: SwissCheese\_56 Start: 39003, Stop: 38482, Start Num: 29

Candidate Starts for SwissCheese\_56:

(Start: 29 @39003 has 115 MA's), (Start: 37 @38979 has 23 MA's), (Start: 41 @38952 has 29 MA's), (Start: 44 @38940 has 4 MA's), (Start: 52 @38892 has 1 MA's), (67, 38793), (73, 38742), (87, 38646), (91, 38613), (95, 38595), (103, 38559), (110, 38529),

Gene: Switzerland\_65 Start: 38511, Stop: 37972, Start Num: 21

Candidate Starts for Switzerland\_65:

(Start: 9 @38604 has 573 MA's), (Start: 13 @38586 has 45 MA's), (Start: 21 @38511 has 22 MA's), (Start: 41 @38433 has 29 MA's), (Start: 45 @38418 has 1 MA's), (Start: 47 @38403 has 1 MA's), (66, 38283), (67, 38280), (78, 38208), (82, 38178), (91, 38100), (95, 38082), (103, 38046),

Gene: Swole\_56 Start: 38530, Stop: 37883, Start Num: 12

Candidate Starts for Swole\_56:

(Start: 12 @38530 has 28 MA's), (Start: 29 @38407 has 115 MA's), (Start: 41 @38356 has 29 MA's), (Start: 44 @38344 has 4 MA's), (63, 38215), (68, 38194), (69, 38176), (87, 38050), (91, 38017), (95, 37999), (103, 37963), (110, 37930), (111, 37927),

Gene: SydNat\_56 Start: 39285, Stop: 38623, Start Num: 9

Candidate Starts for SydNat\_56:

(Start: 9 @39285 has 573 MA's), (Start: 21 @39192 has 22 MA's), (Start: 25 @39174 has 1 MA's), (Start: 33 @39132 has 2 MA's), (Start: 37 @39120 has 23 MA's), (Start: 41 @39093 has 29 MA's), (Start: 44 @39081 has 4 MA's), (69, 38916), (80, 38850), (81, 38841), (83, 38820), (87, 38790), (89, 38784), (91, 38757), (101, 38712), (103, 38703), (108, 38685), (110, 38673), (111, 38670),

Gene: TNguyen7\_59 Start: 38515, Stop: 37856, Start Num: 9

Candidate Starts for TNguyen7\_59:

(Start: 9 @38515 has 573 MA's), (Start: 21 @38422 has 22 MA's), (Start: 33 @38368 has 2 MA's), (Start: 37 @38356 has 23 MA's), (Start: 41 @38329 has 29 MA's), (Start: 45 @38314 has 1 MA's), (Start: 53 @38266 has 4 MA's), (60, 38209), (68, 38161), (79, 38083), (82, 38062), (83, 38047), (95, 37966), (103, 37930), (108, 37912), (119, 37864),

Gene: TWAMP\_48 Start: 35280, Stop: 34621, Start Num: 9

Candidate Starts for TWAMP\_48:

(Start: 9 @35280 has 573 MA's), (Start: 26 @35157 has 3 MA's), (Start: 37 @35121 has 23 MA's), (Start: 41 @35094 has 29 MA's), (Start: 47 @35064 has 1 MA's), (Start: 52 @35034 has 1 MA's), (Start: 53 @35031 has 4 MA's), (54, 35025), (60, 34974), (67, 34929), (69, 34908), (79, 34848), (80, 34842), (108, 34677), (111, 34662),

Gene: TagePighther\_41 Start: 28207, Stop: 28857, Start Num: 9

Candidate Starts for TagePighther\_41:

(Start: 7 @28192 has 37 MA's), (Start: 9 @28207 has 573 MA's), (11, 28210), (Start: 37 @28351 has 23 MA's), (Start: 53 @28435 has 4 MA's), (60, 28492), (61, 28498), (63, 28519), (71, 28564), (73, 28588), (76, 28600), (78, 28609), (79, 28618), (84, 28663), (87, 28684), (102, 28765), (107, 28786), (117, 28834),

Gene: Takoda\_48 Start: 35463, Stop: 34804, Start Num: 9

Candidate Starts for Takoda\_48:

(Start: 9 @35463 has 573 MA's), (Start: 26 @35340 has 3 MA's), (Start: 37 @35304 has 23 MA's), (Start: 41 @35277 has 29 MA's), (Start: 47 @35247 has 1 MA's), (Start: 52 @35217 has 1 MA's), (Start: 53 @35214 has 4 MA's), (54, 35208), (60, 35157), (67, 35112), (80, 35025), (108, 34860), (111,

34845),

Gene: Taquarus\_55 Start: 38142, Stop: 37483, Start Num: 9

Candidate Starts for Taquarus\_55:

(Start: 9 @38142 has 573 MA's), (Start: 21 @38049 has 22 MA's), (Start: 25 @38031 has 1 MA's), (Start: 33 @37995 has 2 MA's), (Start: 37 @37983 has 23 MA's), (Start: 41 @37956 has 29 MA's), (Start: 45 @37941 has 1 MA's), (60, 37836), (79, 37710), (80, 37704), (82, 37689), (83, 37674), (95, 37593), (101, 37566), (103, 37557), (119, 37491),

Gene: Target\_55 Start: 37594, Stop: 37070, Start Num: 29

Candidate Starts for Target\_55:

(Start: 29 @37594 has 115 MA's), (Start: 37 @37570 has 23 MA's), (Start: 41 @37543 has 29 MA's), (Start: 44 @37531 has 4 MA's), (Start: 52 @37483 has 1 MA's), (73, 37333), (87, 37237), (88, 37234), (91, 37204), (95, 37186), (103, 37150), (110, 37117), (111, 37114),

Gene: TarsusIV\_57 Start: 38582, Stop: 38097, Start Num: 37

Candidate Starts for TarsusIV\_57:

(Start: 21 @38636 has 22 MA's), (Start: 37 @38582 has 23 MA's), (Start: 47 @38525 has 1 MA's), (60, 38447), (61, 38441), (69, 38381), (72, 38360), (82, 38300), (91, 38222), (103, 38168),

Gene: Tarynearal\_51 Start: 38091, Stop: 37432, Start Num: 9

Candidate Starts for Tarynearal\_51:

(Start: 9 @38091 has 573 MA's), (Start: 21 @37998 has 22 MA's), (Start: 25 @37980 has 1 MA's), (Start: 33 @37938 has 2 MA's), (Start: 37 @37926 has 23 MA's), (Start: 41 @37899 has 29 MA's), (Start: 44 @37887 has 4 MA's), (69, 37725), (80, 37659), (81, 37650), (83, 37629), (86, 37614), (87, 37599), (89, 37593), (91, 37566), (95, 37548), (101, 37521), (103, 37512), (108, 37494), (110, 37482), (111, 37479),

Gene: Tasp14\_56 Start: 39389, Stop: 38868, Start Num: 29

Candidate Starts for Tasp14\_56:

(Start: 29 @39389 has 115 MA's), (Start: 37 @39365 has 23 MA's), (Start: 41 @39338 has 29 MA's), (Start: 44 @39326 has 4 MA's), (Start: 52 @39278 has 1 MA's), (73, 39128), (87, 39032), (91, 38999), (95, 38981), (103, 38945), (110, 38915),

Gene: Taurus\_63 Start: 38898, Stop: 38239, Start Num: 9

Candidate Starts for Taurus\_63:

(Start: 9 @38898 has 573 MA's), (Start: 21 @38805 has 22 MA's), (Start: 33 @38751 has 2 MA's), (Start: 37 @38739 has 23 MA's), (Start: 41 @38712 has 29 MA's), (60, 38592), (76, 38484), (79, 38466), (80, 38460), (95, 38349), (103, 38313), (108, 38295), (110, 38283),

Gene: Tefunt\_41 Start: 29076, Stop: 29738, Start Num: 6

Candidate Starts for Tefunt\_41:

(3, 28809), (Start: 6 @29076 has 32 MA's), (15, 29124), (22, 29187), (Start: 43 @29277 has 1 MA's), (Start: 53 @29322 has 4 MA's), (63, 29406), (82, 29526), (84, 29550), (87, 29571), (102, 29652), (107, 29670), (109, 29685), (117, 29718),

Gene: Temprado\_63 Start: 38202, Stop: 37570, Start Num: 9

Candidate Starts for Temprado\_63:

(Start: 9 @38202 has 573 MA's), (Start: 21 @38109 has 22 MA's), (Start: 37 @38055 has 23 MA's), (Start: 47 @37998 has 1 MA's), (61, 37914), (69, 37854), (87, 37728), (91, 37695), (95, 37677), (103, 37641), (108, 37623), (110, 37611), (111, 37608),

Gene: Teodoridan\_53 Start: 38328, Stop: 37807, Start Num: 29



Candidate Starts for Teodoridan\_53:

(Start: 29 @38328 has 115 MA's), (Start: 37 @38304 has 23 MA's), (Start: 41 @38277 has 29 MA's), (Start: 44 @38265 has 4 MA's), (Start: 52 @38217 has 1 MA's), (73, 38067), (87, 37971), (91, 37938), (95, 37920), (103, 37884), (110, 37854),

Gene: Terrific\_61 Start: 39108, Stop: 38476, Start Num: 9

Candidate Starts for Terrific\_61:

(Start: 9 @39108 has 573 MA's), (Start: 21 @39015 has 22 MA's), (Start: 37 @38961 has 23 MA's), (Start: 47 @38904 has 1 MA's), (57, 38850), (60, 38826), (61, 38820), (69, 38760), (79, 38700), (82, 38679), (87, 38634), (91, 38601), (103, 38547),

Gene: Texage\_56 Start: 38515, Stop: 37853, Start Num: 9

Candidate Starts for Texage\_56:

(Start: 9 @38515 has 573 MA's), (Start: 21 @38422 has 22 MA's), (Start: 24 @38407 has 2 MA's), (Start: 33 @38368 has 2 MA's), (Start: 37 @38356 has 23 MA's), (Start: 41 @38329 has 29 MA's), (60, 38209), (68, 38161), (76, 38101), (79, 38083), (80, 38077), (82, 38062), (83, 38047), (103, 37930), (108, 37912),

Gene: Thanksgivukkah\_54 Start: 38137, Stop: 37478, Start Num: 9

Candidate Starts for Thanksgivukkah\_54:

(Start: 9 @38137 has 573 MA's), (Start: 21 @38044 has 22 MA's), (Start: 25 @38026 has 1 MA's), (Start: 33 @37990 has 2 MA's), (Start: 37 @37978 has 23 MA's), (Start: 41 @37951 has 29 MA's), (Start: 45 @37936 has 1 MA's), (60, 37831), (79, 37705), (80, 37699), (82, 37684), (83, 37669), (95, 37588), (101, 37561), (103, 37552), (119, 37486),

Gene: Theia\_52 Start: 38765, Stop: 38103, Start Num: 9

Candidate Starts for Theia\_52:

(Start: 9 @38765 has 573 MA's), (Start: 21 @38672 has 22 MA's), (Start: 25 @38654 has 1 MA's), (Start: 33 @38612 has 2 MA's), (Start: 37 @38600 has 23 MA's), (Start: 41 @38573 has 29 MA's), (Start: 44 @38561 has 4 MA's), (69, 38396), (80, 38330), (81, 38321), (83, 38300), (87, 38270), (89, 38264), (91, 38237), (95, 38219), (101, 38192), (103, 38183), (108, 38165), (110, 38153), (111, 38150),

Gene: TheloniousMonk\_55 Start: 41116, Stop: 40535, Start Num: 20

Candidate Starts for TheloniousMonk\_55:

(Start: 20 @41116 has 38 MA's), (Start: 29 @41059 has 115 MA's), (Start: 37 @41035 has 23 MA's), (Start: 41 @41008 has 29 MA's), (Start: 44 @40996 has 4 MA's), (Start: 52 @40948 has 1 MA's), (73, 40798), (87, 40702), (88, 40699), (91, 40669), (95, 40651), (103, 40615), (110, 40582), (111, 40579),

Gene: Thestral\_41 Start: 29271, Stop: 29933, Start Num: 6

Candidate Starts for Thestral\_41:

(Start: 6 @29271 has 32 MA's), (15, 29319), (17, 29334), (22, 29382), (Start: 43 @29472 has 1 MA's), (Start: 53 @29517 has 4 MA's), (63, 29601), (82, 29721), (84, 29745), (87, 29766), (109, 29880), (115, 29901), (117, 29913),

Gene: Thor\_52 Start: 37720, Stop: 37199, Start Num: 29

Candidate Starts for Thor\_52:

(Start: 29 @37720 has 115 MA's), (Start: 37 @37696 has 23 MA's), (Start: 41 @37669 has 29 MA's), (Start: 44 @37657 has 4 MA's), (Start: 52 @37609 has 1 MA's), (73, 37459), (87, 37363), (91, 37330), (95, 37312), (103, 37276), (110, 37246),

Gene: Tiffany\_61 Start: 38784, Stop: 38125, Start Num: 9

Candidate Starts for Tiffany\_61:

(Start: 9 @38784 has 573 MA's), (Start: 21 @38691 has 22 MA's), (Start: 33 @38637 has 2 MA's), (Start: 37 @38625 has 23 MA's), (Start: 41 @38598 has 29 MA's), (60, 38478), (76, 38370), (79, 38352), (80, 38346), (95, 38235), (103, 38199), (108, 38181), (110, 38169),

Gene: Tiger\_52 Start: 37951, Stop: 37292, Start Num: 9

Candidate Starts for Tiger\_52:

(Start: 9 @37951 has 573 MA's), (Start: 21 @37858 has 22 MA's), (Start: 25 @37840 has 1 MA's), (Start: 33 @37798 has 2 MA's), (Start: 37 @37786 has 23 MA's), (Start: 41 @37759 has 29 MA's), (Start: 44 @37747 has 4 MA's), (69, 37585), (80, 37519), (83, 37489), (87, 37459), (89, 37453), (91, 37426), (95, 37408), (101, 37381), (103, 37372), (108, 37354), (110, 37342), (111, 37339),

Gene: Timothy\_59 Start: 38176, Stop: 37529, Start Num: 9

Candidate Starts for Timothy\_59:

(Start: 9 @38176 has 573 MA's), (Start: 21 @38083 has 22 MA's), (Start: 37 @38029 has 23 MA's), (Start: 41 @38002 has 29 MA's), (Start: 47 @37972 has 1 MA's), (61, 37876), (69, 37816), (80, 37750), (82, 37735), (87, 37690), (90, 37681), (91, 37657), (103, 37603), (111, 37570),

Gene: Timshel\_54 Start: 40008, Stop: 39469, Start Num: 24

Candidate Starts for Timshel\_54:

(Start: 21 @40023 has 22 MA's), (Start: 24 @40008 has 2 MA's), (Start: 29 @39981 has 115 MA's), (Start: 37 @39957 has 23 MA's), (Start: 41 @39930 has 29 MA's), (Start: 44 @39918 has 4 MA's), (Start: 53 @39867 has 4 MA's), (60, 39822), (63, 39795), (76, 39714), (80, 39690), (83, 39660), (87, 39630), (95, 39579), (101, 39552), (103, 39543), (110, 39513), (119, 39477),

Gene: TinaBelcher\_40 Start: 29218, Stop: 29880, Start Num: 6

Candidate Starts for TinaBelcher\_40:

(Start: 6 @29218 has 32 MA's), (15, 29266), (17, 29281), (22, 29329), (Start: 43 @29419 has 1 MA's), (Start: 53 @29464 has 4 MA's), (63, 29548), (82, 29668), (84, 29692), (109, 29827), (115, 29848), (117, 29860),

Gene: TinaFeyge\_54 Start: 38134, Stop: 37475, Start Num: 9

Candidate Starts for TinaFeyge\_54:

(Start: 9 @38134 has 573 MA's), (Start: 21 @38041 has 22 MA's), (Start: 25 @38023 has 1 MA's), (Start: 33 @37987 has 2 MA's), (Start: 37 @37975 has 23 MA's), (Start: 41 @37948 has 29 MA's), (Start: 45 @37933 has 1 MA's), (60, 37828), (79, 37702), (80, 37696), (82, 37681), (83, 37666), (95, 37585), (101, 37558), (103, 37549), (119, 37483),

Gene: TinyPebbles\_61 Start: 38928, Stop: 38269, Start Num: 9

Candidate Starts for TinyPebbles\_61:

(Start: 9 @38928 has 573 MA's), (Start: 21 @38835 has 22 MA's), (Start: 33 @38781 has 2 MA's), (Start: 37 @38769 has 23 MA's), (Start: 41 @38742 has 29 MA's), (60, 38622), (76, 38514), (79, 38496), (80, 38490), (95, 38379), (103, 38343), (108, 38325), (110, 38313),

Gene: TinyTimmy\_59 Start: 38225, Stop: 37578, Start Num: 9

Candidate Starts for TinyTimmy\_59:

(Start: 9 @38225 has 573 MA's), (Start: 21 @38132 has 22 MA's), (Start: 37 @38078 has 23 MA's), (Start: 41 @38051 has 29 MA's), (Start: 47 @38021 has 1 MA's), (61, 37925), (69, 37865), (80, 37799), (82, 37784), (87, 37739), (90, 37730), (91, 37706), (103, 37652), (111, 37619),

Gene: Tinybot\_54 Start: 38166, Stop: 37507, Start Num: 9

Candidate Starts for Tinybot\_54:

(Start: 9 @38166 has 573 MA's), (Start: 21 @38073 has 22 MA's), (Start: 25 @38055 has 1 MA's), (Start: 33 @38019 has 2 MA's), (Start: 37 @38007 has 23 MA's), (Start: 41 @37980 has 29 MA's),

(Start: 45 @37965 has 1 MA's), (60, 37860), (79, 37734), (80, 37728), (82, 37713), (83, 37698), (95, 37617), (101, 37590), (103, 37581), (119, 37515),

Gene: TopsytheTRex\_56 Start: 38542, Stop: 37910, Start Num: 9

Candidate Starts for TopsytheTRex\_56:

(Start: 9 @38542 has 573 MA's), (Start: 21 @38449 has 22 MA's), (Start: 24 @38434 has 2 MA's), (Start: 37 @38395 has 23 MA's), (Start: 41 @38368 has 29 MA's), (Start: 47 @38338 has 1 MA's), (60, 38260), (69, 38194), (79, 38134), (82, 38113), (87, 38068), (91, 38035), (95, 38017), (103, 37981),

Gene: TiroTheta9\_55 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for TiroTheta9\_55:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 25 @38022 has 1 MA's), (Start: 33 @37986 has 2 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 45 @37932 has 1 MA's), (60, 37827), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (95, 37584), (101, 37557), (103, 37548), (119, 37482),

Gene: Toaka\_59 Start: 38829, Stop: 38206, Start Num: 9

Candidate Starts for Toaka\_59:

(Start: 9 @38829 has 573 MA's), (Start: 21 @38736 has 22 MA's), (Start: 24 @38721 has 2 MA's), (Start: 41 @38664 has 29 MA's), (Start: 44 @38652 has 4 MA's), (69, 38490), (78, 38439), (87, 38364), (103, 38277),

Gene: Todacoro\_57 Start: 38514, Stop: 37852, Start Num: 9

Candidate Starts for Todacoro\_57:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: Toma\_39 Start: 28637, Stop: 29302, Start Num: 7

Candidate Starts for Toma\_39:

(Start: 7 @28637 has 37 MA's), (Start: 9 @28652 has 573 MA's), (11, 28655), (Start: 53 @28880 has 4 MA's), (60, 28937), (61, 28943), (63, 28964), (64, 28973), (71, 29009), (73, 29033), (76, 29045), (78, 29054), (79, 29063), (84, 29108), (87, 29129), (102, 29210), (107, 29231), (117, 29279),

Gene: Tomathan\_61 Start: 38950, Stop: 38318, Start Num: 9

Candidate Starts for Tomathan\_61:

(Start: 9 @38950 has 573 MA's), (Start: 21 @38857 has 22 MA's), (Start: 37 @38803 has 23 MA's), (Start: 41 @38776 has 29 MA's), (Start: 47 @38746 has 1 MA's), (60, 38668), (61, 38662), (69, 38602), (82, 38521), (87, 38476), (91, 38443), (95, 38425), (103, 38389),

Gene: ToneTone\_58 Start: 37762, Stop: 37130, Start Num: 9

Candidate Starts for ToneTone\_58:

(Start: 9 @37762 has 573 MA's), (Start: 21 @37669 has 22 MA's), (Start: 37 @37615 has 23 MA's), (Start: 47 @37558 has 1 MA's), (61, 37474), (69, 37414), (87, 37288), (91, 37255), (95, 37237), (103, 37201), (108, 37183), (110, 37171), (111, 37168),

Gene: Topanga\_53 Start: 38064, Stop: 37405, Start Num: 9

Candidate Starts for Topanga\_53:

(Start: 9 @38064 has 573 MA's), (Start: 21 @37971 has 22 MA's), (Start: 37 @37905 has 23 MA's), (Start: 41 @37878 has 29 MA's), (Start: 53 @37815 has 4 MA's), (60, 37758), (68, 37710), (76, 37650), (79, 37632), (80, 37626), (82, 37611), (83, 37596), (101, 37488), (103, 37479), (108, 37461), (110, 37449), (119, 37413),

Gene: Topgun\_54 Start: 38573, Stop: 38052, Start Num: 29

Candidate Starts for Topgun\_54:

(Start: 29 @38573 has 115 MA's), (Start: 37 @38549 has 23 MA's), (Start: 41 @38522 has 29 MA's), (Start: 44 @38510 has 4 MA's), (Start: 52 @38462 has 1 MA's), (67, 38363), (73, 38312), (87, 38216), (88, 38213), (91, 38183), (95, 38165), (96, 38162), (103, 38129), (110, 38099), (111, 38096),

Gene: ToriToki\_58 Start: 30971, Stop: 30339, Start Num: 9

Candidate Starts for ToriToki\_58:

(Start: 9 @30971 has 573 MA's), (Start: 13 @30953 has 45 MA's), (15, 30941), (22, 30881), (Start: 47 @30773 has 1 MA's), (48, 30755), (50, 30749), (64, 30656), (80, 30560), (87, 30500),

Gene: Toro\_59 Start: 40954, Stop: 40307, Start Num: 9

Candidate Starts for Toro\_59:

(Start: 9 @40954 has 573 MA's), (Start: 21 @40861 has 22 MA's), (Start: 24 @40846 has 2 MA's), (Start: 29 @40819 has 115 MA's), (35, 40804), (Start: 41 @40768 has 29 MA's), (Start: 44 @40756 has 4 MA's), (Start: 45 @40753 has 1 MA's), (Start: 53 @40705 has 4 MA's), (60, 40660), (69, 40594), (76, 40552), (80, 40528), (83, 40498), (92, 40432), (101, 40390), (103, 40381), (117, 40324), (119, 40315),

Gene: Tote\_51 Start: 35797, Stop: 35150, Start Num: 12

Candidate Starts for Tote\_51:

(Start: 12 @35797 has 28 MA's), (Start: 29 @35674 has 115 MA's), (Start: 41 @35623 has 29 MA's), (Start: 44 @35611 has 4 MA's), (63, 35482), (68, 35461), (69, 35443), (87, 35317), (91, 35284), (95, 35266), (103, 35230), (110, 35197), (111, 35194),

Gene: Traft412\_57 Start: 40021, Stop: 39443, Start Num: 20

Candidate Starts for Traft412\_57:

(Start: 20 @40021 has 38 MA's), (Start: 29 @39964 has 115 MA's), (Start: 37 @39940 has 23 MA's), (Start: 41 @39913 has 29 MA's), (Start: 44 @39901 has 4 MA's), (Start: 52 @39853 has 1 MA's), (67, 39754), (73, 39703), (87, 39607), (91, 39574), (95, 39556), (103, 39520), (110, 39490),

Gene: Travvers\_61 Start: 38900, Stop: 38268, Start Num: 9

Candidate Starts for Travvers\_61:

(Start: 9 @38900 has 573 MA's), (Start: 21 @38807 has 22 MA's), (Start: 37 @38753 has 23 MA's), (Start: 41 @38726 has 29 MA's), (Start: 47 @38696 has 1 MA's), (60, 38618), (61, 38612), (69, 38552), (82, 38471), (87, 38426), (91, 38393), (95, 38375), (103, 38339),

Gene: Treat\_58 Start: 30912, Stop: 30280, Start Num: 9

Candidate Starts for Treat\_58:

(Start: 9 @30912 has 573 MA's), (Start: 13 @30894 has 45 MA's), (15, 30882), (22, 30822), (Start: 47 @30714 has 1 MA's), (48, 30696), (50, 30690), (64, 30597), (80, 30501), (87, 30441),

Gene: Treddle\_55 Start: 39496, Stop: 38975, Start Num: 29

Candidate Starts for Treddle\_55:

(Start: 29 @39496 has 115 MA's), (Start: 37 @39472 has 23 MA's), (Start: 41 @39445 has 29 MA's), (Start: 44 @39433 has 4 MA's), (Start: 52 @39385 has 1 MA's), (67, 39286), (73, 39235), (87, 39139), (91, 39106), (95, 39088), (103, 39052), (110, 39022),

Gene: Trike\_54 Start: 37279, Stop: 36620, Start Num: 9

Candidate Starts for Trike\_54:

(Start: 9 @37279 has 573 MA's), (Start: 21 @37186 has 22 MA's), (Start: 37 @37120 has 23 MA's), (Start: 41 @37093 has 29 MA's), (Start: 53 @37030 has 4 MA's), (60, 36973), (68, 36925), (82,

36826), (83, 36811), (101, 36703), (103, 36694), (110, 36664), (119, 36628),

Gene: Tripl3t\_55 Start: 40330, Stop: 39830, Start Num: 37

Candidate Starts for Tripl3t\_55:

(Start: 29 @40354 has 115 MA's), (Start: 37 @40330 has 23 MA's), (Start: 41 @40303 has 29 MA's), (Start: 44 @40291 has 4 MA's), (Start: 52 @40243 has 1 MA's), (67, 40144), (73, 40093), (87, 39997), (91, 39964), (95, 39946), (103, 39910), (110, 39877), (111, 39874),

Gene: Tristan\_56 Start: 39637, Stop: 39152, Start Num: 37

Candidate Starts for Tristan\_56:

(Start: 21 @39691 has 22 MA's), (Start: 37 @39637 has 23 MA's), (Start: 41 @39610 has 29 MA's), (Start: 47 @39580 has 1 MA's), (60, 39502), (61, 39496), (69, 39436), (82, 39355), (87, 39310), (91, 39277), (103, 39223), (110, 39193),

Gene: Triste\_39 Start: 28195, Stop: 28845, Start Num: 9

Candidate Starts for Triste\_39:

(Start: 7 @28180 has 37 MA's), (Start: 9 @28195 has 573 MA's), (11, 28198), (Start: 37 @28339 has 23 MA's), (Start: 53 @28423 has 4 MA's), (60, 28480), (61, 28486), (63, 28507), (71, 28552), (73, 28576), (76, 28588), (78, 28597), (79, 28606), (84, 28651), (87, 28672), (102, 28753), (107, 28774), (117, 28822),

Gene: Triumph\_41 Start: 28968, Stop: 29630, Start Num: 6

Candidate Starts for Triumph\_41:

(1, 28524), (2, 28641), (3, 28698), (Start: 6 @28968 has 32 MA's), (15, 29016), (17, 29031), (19, 29052), (22, 29079), (Start: 43 @29169 has 1 MA's), (Start: 53 @29214 has 4 MA's), (63, 29298), (82, 29418), (84, 29442), (102, 29544), (107, 29562),

Gene: Trixie\_57 Start: 38966, Stop: 38334, Start Num: 9

Candidate Starts for Trixie\_57:

(Start: 9 @38966 has 573 MA's), (Start: 21 @38873 has 22 MA's), (Start: 37 @38819 has 23 MA's), (Start: 41 @38792 has 29 MA's), (Start: 45 @38777 has 1 MA's), (Start: 47 @38762 has 1 MA's), (61, 38678), (69, 38618), (87, 38492), (91, 38459), (95, 38441), (103, 38405),

Gene: Trooper\_60 Start: 39363, Stop: 38824, Start Num: 21

Candidate Starts for Trooper\_60:

(Start: 21 @39363 has 22 MA's), (Start: 37 @39309 has 23 MA's), (Start: 47 @39252 has 1 MA's), (60, 39174), (61, 39168), (67, 39129), (69, 39108), (72, 39087), (82, 39027), (91, 38949), (103, 38895),

Gene: Trouble\_57 Start: 40284, Stop: 39706, Start Num: 20

Candidate Starts for Trouble\_57:

(Start: 20 @40284 has 38 MA's), (Start: 29 @40227 has 115 MA's), (Start: 37 @40203 has 23 MA's), (Start: 41 @40176 has 29 MA's), (Start: 44 @40164 has 4 MA's), (Start: 52 @40116 has 1 MA's), (67, 40017), (73, 39966), (87, 39870), (88, 39867), (91, 39837), (95, 39819), (103, 39783), (110, 39753),

Gene: TroyPia\_56 Start: 38137, Stop: 37478, Start Num: 9

Candidate Starts for TroyPia\_56:

(Start: 9 @38137 has 573 MA's), (Start: 21 @38044 has 22 MA's), (Start: 25 @38026 has 1 MA's), (Start: 33 @37990 has 2 MA's), (Start: 37 @37978 has 23 MA's), (Start: 41 @37951 has 29 MA's), (Start: 45 @37936 has 1 MA's), (60, 37831), (79, 37705), (80, 37699), (82, 37684), (83, 37669), (95, 37588), (101, 37561), (103, 37552), (119, 37486),

Gene: TrvxScott\_39 Start: 29264, Stop: 29926, Start Num: 6

Candidate Starts for TrvxScott\_39:

(Start: 6 @29264 has 32 MA's), (15, 29312), (17, 29327), (22, 29375), (Start: 43 @29465 has 1 MA's), (Start: 53 @29510 has 4 MA's), (63, 29594), (82, 29714), (84, 29738), (109, 29873), (115, 29894), (117, 29906),

Gene: TuanPN\_38 Start: 28367, Stop: 28789, Start Num: 53

Candidate Starts for TuanPN\_38:

(Start: 7 @28124 has 37 MA's), (Start: 9 @28139 has 573 MA's), (11, 28142), (Start: 53 @28367 has 4 MA's), (60, 28424), (61, 28430), (63, 28451), (71, 28496), (73, 28520), (76, 28532), (78, 28541), (79, 28550), (84, 28595), (87, 28616), (102, 28697), (107, 28718), (117, 28766),

Gene: Tubs\_59 Start: 38854, Stop: 38225, Start Num: 9

Candidate Starts for Tubs\_59:

(Start: 9 @38854 has 573 MA's), (Start: 21 @38761 has 22 MA's), (Start: 26 @38737 has 3 MA's), (Start: 37 @38713 has 23 MA's), (Start: 41 @38686 has 29 MA's), (Start: 45 @38671 has 1 MA's), (60, 38575), (61, 38569), (67, 38530), (69, 38509), (80, 38443), (87, 38383), (91, 38350), (103, 38296),

Gene: Tucker\_61 Start: 37931, Stop: 37299, Start Num: 9

Candidate Starts for Tucker\_61:

(Start: 9 @37931 has 573 MA's), (Start: 21 @37838 has 22 MA's), (Start: 37 @37784 has 23 MA's), (Start: 47 @37727 has 1 MA's), (61, 37643), (69, 37583), (87, 37457), (91, 37424), (95, 37406), (103, 37370), (108, 37352), (110, 37340), (111, 37337),

Gene: Turbido\_60 Start: 39351, Stop: 38719, Start Num: 9

Candidate Starts for Turbido\_60:

(Start: 9 @39351 has 573 MA's), (Start: 21 @39258 has 22 MA's), (Start: 37 @39204 has 23 MA's), (Start: 47 @39147 has 1 MA's), (Start: 52 @39117 has 1 MA's), (61, 39063), (69, 39003), (79, 38943), (87, 38877), (91, 38844), (103, 38790),

Gene: Twigg\_53 Start: 38294, Stop: 37635, Start Num: 9

Candidate Starts for Twigg\_53:

(Start: 9 @38294 has 573 MA's), (Start: 21 @38201 has 22 MA's), (Start: 25 @38183 has 1 MA's), (Start: 33 @38141 has 2 MA's), (Start: 37 @38129 has 23 MA's), (Start: 41 @38102 has 29 MA's), (Start: 44 @38090 has 4 MA's), (Start: 45 @38087 has 1 MA's), (Start: 53 @38039 has 4 MA's), (80, 37862), (81, 37853), (83, 37832), (86, 37817), (87, 37802), (89, 37796), (91, 37769), (95, 37751), (101, 37724), (103, 37715), (108, 37697), (110, 37685), (111, 37682),

Gene: Twister\_54 Start: 37981, Stop: 37322, Start Num: 9

Candidate Starts for Twister\_54:

(Start: 9 @37981 has 573 MA's), (Start: 21 @37888 has 22 MA's), (Start: 37 @37822 has 23 MA's), (Start: 41 @37795 has 29 MA's), (Start: 53 @37732 has 4 MA's), (60, 37675), (68, 37627), (76, 37567), (79, 37549), (80, 37543), (82, 37528), (83, 37513), (101, 37405), (103, 37396), (108, 37378), (110, 37366), (119, 37330),

Gene: TwoPeat\_56 Start: 38827, Stop: 38306, Start Num: 29

Candidate Starts for TwoPeat\_56:

(Start: 12 @38950 has 28 MA's), (Start: 29 @38827 has 115 MA's), (Start: 41 @38776 has 29 MA's), (Start: 44 @38764 has 4 MA's), (63, 38635), (68, 38614), (69, 38596), (87, 38470), (88, 38467), (91, 38437), (95, 38419), (103, 38383), (110, 38353),

Gene: TygerBlood\_55 Start: 38139, Stop: 37480, Start Num: 9

Candidate Starts for TygerBlood\_55:

(Start: 9 @38139 has 573 MA's), (Start: 21 @38046 has 22 MA's), (Start: 25 @38028 has 1 MA's), (Start: 33 @37992 has 2 MA's), (Start: 37 @37980 has 23 MA's), (Start: 41 @37953 has 29 MA's),

(Start: 45 @37938 has 1 MA's), (60, 37833), (79, 37707), (80, 37701), (82, 37686), (83, 37671), (95, 37590), (101, 37563), (103, 37554), (119, 37488),

Gene: U2\_54 Start: 39847, Stop: 39374, Start Num: 41

Candidate Starts for U2\_54:

(Start: 29 @39898 has 115 MA's), (Start: 37 @39874 has 23 MA's), (Start: 41 @39847 has 29 MA's), (Start: 44 @39835 has 4 MA's), (Start: 52 @39787 has 1 MA's), (67, 39688), (73, 39637), (87, 39541), (88, 39538), (91, 39508), (95, 39490), (103, 39454), (110, 39421), (111, 39418),

Gene: Ugenie5\_56 Start: 39139, Stop: 38510, Start Num: 9

Candidate Starts for Ugenie5\_56:

(Start: 9 @39139 has 573 MA's), (Start: 21 @39046 has 22 MA's), (Start: 26 @39022 has 3 MA's), (Start: 37 @38998 has 23 MA's), (Start: 41 @38971 has 29 MA's), (Start: 45 @38956 has 1 MA's), (60, 38860), (61, 38854), (67, 38815), (69, 38794), (87, 38668), (91, 38635), (103, 38581), (110, 38551),

Gene: UhSalsa\_48 Start: 35222, Stop: 34563, Start Num: 9

Candidate Starts for UhSalsa\_48:

(Start: 9 @35222 has 573 MA's), (Start: 26 @35099 has 3 MA's), (Start: 37 @35063 has 23 MA's), (Start: 41 @35036 has 29 MA's), (Start: 47 @35006 has 1 MA's), (Start: 52 @34976 has 1 MA's), (Start: 53 @34973 has 4 MA's), (54, 34967), (60, 34916), (67, 34871), (69, 34850), (80, 34784), (108, 34619), (111, 34604),

Gene: Ulysses\_54 Start: 37816, Stop: 37157, Start Num: 9

Candidate Starts for Ulysses\_54:

(Start: 9 @37816 has 573 MA's), (Start: 21 @37723 has 22 MA's), (Start: 25 @37705 has 1 MA's), (Start: 33 @37669 has 2 MA's), (Start: 37 @37657 has 23 MA's), (Start: 41 @37630 has 29 MA's), (Start: 45 @37615 has 1 MA's), (60, 37510), (79, 37384), (80, 37378), (82, 37363), (83, 37348), (95, 37267), (101, 37240), (103, 37231), (119, 37165),

Gene: UnionJack\_55 Start: 38095, Stop: 37433, Start Num: 9

Candidate Starts for UnionJack\_55:

(Start: 9 @38095 has 573 MA's), (Start: 21 @38002 has 22 MA's), (Start: 25 @37984 has 1 MA's), (Start: 33 @37942 has 2 MA's), (Start: 37 @37930 has 23 MA's), (Start: 41 @37903 has 29 MA's), (Start: 44 @37891 has 4 MA's), (69, 37726), (80, 37660), (81, 37651), (83, 37630), (87, 37600), (89, 37594), (91, 37567), (95, 37549), (101, 37522), (103, 37513), (108, 37495), (110, 37483), (111, 37480),

Gene: Unstoppable\_39 Start: 27970, Stop: 28476, Start Num: 37

Candidate Starts for Unstoppable\_39:

(Start: 7 @27811 has 37 MA's), (Start: 9 @27826 has 573 MA's), (11, 27829), (Start: 37 @27970 has 23 MA's), (Start: 53 @28054 has 4 MA's), (60, 28111), (61, 28117), (63, 28138), (64, 28147), (71, 28183), (73, 28207), (76, 28219), (78, 28228), (79, 28237), (84, 28282), (102, 28384), (107, 28405), (117, 28453),

Gene: Updawg\_60 Start: 38998, Stop: 38366, Start Num: 9

Candidate Starts for Updawg\_60:

(Start: 9 @38998 has 573 MA's), (Start: 21 @38905 has 22 MA's), (Start: 37 @38851 has 23 MA's), (Start: 47 @38794 has 1 MA's), (57, 38740), (60, 38716), (61, 38710), (69, 38650), (79, 38590), (82, 38569), (87, 38524), (91, 38491), (103, 38437),

Gene: Urza\_41 Start: 28667, Stop: 29332, Start Num: 7

Candidate Starts for Urza\_41:

(Start: 7 @28667 has 37 MA's), (Start: 9 @28682 has 573 MA's), (Start: 36 @28823 has 2 MA's), (60, 28967), (73, 29063), (84, 29138), (102, 29240), (107, 29261), (109, 29276),

Gene: VA6\_60 Start: 39153, Stop: 38614, Start Num: 21

Candidate Starts for VA6\_60:

(Start: 21 @39153 has 22 MA's), (Start: 37 @39099 has 23 MA's), (Start: 47 @39042 has 1 MA's), (61, 38958), (69, 38898), (80, 38832), (87, 38772), (91, 38739), (95, 38721), (103, 38685),

Gene: VC3\_62 Start: 39337, Stop: 38705, Start Num: 9

Candidate Starts for VC3\_62:

(Start: 9 @39337 has 573 MA's), (Start: 21 @39244 has 22 MA's), (Start: 37 @39190 has 23 MA's), (Start: 41 @39163 has 29 MA's), (Start: 47 @39133 has 1 MA's), (60, 39055), (61, 39049), (69, 38989), (82, 38908), (87, 38863), (91, 38830), (95, 38812), (103, 38776),

Gene: Vanisoa\_59 Start: 39952, Stop: 39326, Start Num: 9

Candidate Starts for Vanisoa\_59:

(Start: 9 @39952 has 573 MA's), (16, 39916), (Start: 21 @39859 has 22 MA's), (Start: 37 @39811 has 23 MA's), (Start: 41 @39784 has 29 MA's), (Start: 44 @39772 has 4 MA's), (Start: 47 @39754 has 1 MA's), (60, 39676), (61, 39670), (69, 39610), (76, 39568), (79, 39550), (80, 39544), (87, 39484), (91, 39451), (103, 39397),

Gene: Vanseggelen\_45 Start: 29600, Stop: 30022, Start Num: 53

Candidate Starts for Vanseggelen\_45:

(Start: 7 @29357 has 37 MA's), (Start: 9 @29372 has 573 MA's), (Start: 53 @29600 has 4 MA's), (60, 29657), (61, 29663), (63, 29684), (64, 29693), (73, 29753), (74, 29756), (76, 29765), (84, 29828), (102, 29930),

Gene: Verabelle\_43 Start: 30009, Stop: 30431, Start Num: 53

Candidate Starts for Verabelle\_43:

(Start: 7 @29766 has 37 MA's), (Start: 9 @29781 has 573 MA's), (Start: 53 @30009 has 4 MA's), (60, 30066), (61, 30072), (63, 30093), (64, 30102), (73, 30162), (74, 30165), (76, 30174), (84, 30237), (102, 30339), (107, 30360),

Gene: Veracruz\_56 Start: 38514, Stop: 37852, Start Num: 9

Candidate Starts for Veracruz\_56:

(Start: 9 @38514 has 573 MA's), (Start: 21 @38421 has 22 MA's), (Start: 24 @38406 has 2 MA's), (Start: 33 @38367 has 2 MA's), (Start: 37 @38355 has 23 MA's), (Start: 41 @38328 has 29 MA's), (60, 38208), (68, 38160), (76, 38100), (79, 38082), (80, 38076), (82, 38061), (83, 38046), (103, 37929), (108, 37911),

Gene: Verse\_40 Start: 30508, Stop: 31173, Start Num: 7

Candidate Starts for Verse\_40:

(Start: 7 @30508 has 37 MA's), (Start: 9 @30523 has 573 MA's), (22, 30616), (Start: 53 @30751 has 4 MA's), (60, 30808), (61, 30814), (63, 30835), (64, 30844), (73, 30904), (74, 30907), (76, 30916), (84, 30979), (102, 31081), (107, 31102),

Gene: VieEnRose\_40 Start: 28747, Stop: 29256, Start Num: 36

Candidate Starts for VieEnRose\_40:

(Start: 7 @28591 has 37 MA's), (Start: 9 @28606 has 573 MA's), (17, 28651), (Start: 36 @28747 has 2 MA's), (60, 28891), (73, 28987), (74, 28990), (84, 29062), (102, 29164), (107, 29185), (109, 29200),

Gene: Violet\_53 Start: 39887, Stop: 39309, Start Num: 20

Candidate Starts for Violet\_53:



(Start: 20 @39887 has 38 MA's), (Start: 29 @39830 has 115 MA's), (Start: 37 @39806 has 23 MA's), (Start: 41 @39779 has 29 MA's), (Start: 44 @39767 has 4 MA's), (Start: 52 @39719 has 1 MA's), (73, 39569), (87, 39473), (88, 39470), (91, 39440), (95, 39422), (103, 39386), (110, 39356),

Gene: Vix\_61 Start: 38981, Stop: 38322, Start Num: 9

Candidate Starts for Vix\_61:

(Start: 9 @38981 has 573 MA's), (Start: 21 @38888 has 22 MA's), (Start: 33 @38834 has 2 MA's), (Start: 37 @38822 has 23 MA's), (Start: 41 @38795 has 29 MA's), (60, 38675), (76, 38567), (79, 38549), (80, 38543), (95, 38432), (103, 38396), (108, 38378), (110, 38366),

Gene: VohminGhazi\_60 Start: 37719, Stop: 37087, Start Num: 9

Candidate Starts for VohminGhazi\_60:

(Start: 9 @37719 has 573 MA's), (Start: 21 @37626 has 22 MA's), (Start: 37 @37572 has 23 MA's), (Start: 47 @37515 has 1 MA's), (60, 37437), (69, 37371), (82, 37290), (87, 37245), (91, 37212), (95, 37194), (103, 37158), (110, 37128), (111, 37125),

Gene: Vorvolakos\_58 Start: 30568, Stop: 29936, Start Num: 9

Candidate Starts for Vorvolakos\_58:

(Start: 9 @30568 has 573 MA's), (Start: 13 @30550 has 45 MA's), (15, 30538), (Start: 47 @30370 has 1 MA's), (50, 30346), (67, 30244), (79, 30163), (87, 30097), (96, 30043), (97, 30040),

Gene: WRightOn\_61 Start: 30707, Stop: 30075, Start Num: 9

Candidate Starts for WRightOn\_61:

(Start: 9 @30707 has 573 MA's), (Start: 13 @30689 has 45 MA's), (15, 30677), (Start: 47 @30509 has 1 MA's), (50, 30485), (59, 30446), (67, 30383), (79, 30302), (87, 30236), (99, 30173),

Gene: Waits\_66 Start: 38501, Stop: 37869, Start Num: 9

Candidate Starts for Waits\_66:

(Start: 9 @38501 has 573 MA's), (Start: 13 @38483 has 45 MA's), (Start: 21 @38408 has 22 MA's), (Start: 41 @38330 has 29 MA's), (Start: 45 @38315 has 1 MA's), (Start: 47 @38300 has 1 MA's), (66, 38180), (67, 38177), (78, 38105), (82, 38075), (91, 37997), (103, 37943),

Gene: WalterMcMickey\_54 Start: 37981, Stop: 37322, Start Num: 9

Candidate Starts for WalterMcMickey\_54:

(Start: 9 @37981 has 573 MA's), (Start: 21 @37888 has 22 MA's), (Start: 37 @37822 has 23 MA's), (Start: 41 @37795 has 29 MA's), (Start: 53 @37732 has 4 MA's), (60, 37675), (68, 37627), (76, 37567), (79, 37549), (80, 37543), (82, 37528), (83, 37513), (101, 37405), (103, 37396), (108, 37378), (110, 37366), (119, 37330),

Gene: Wander\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Wander\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Warrior24\_69 Start: 38935, Stop: 38303, Start Num: 9

Candidate Starts for Warrior24\_69:

(Start: 9 @38935 has 573 MA's), (Start: 13 @38917 has 45 MA's), (Start: 21 @38842 has 22 MA's), (Start: 41 @38764 has 29 MA's), (Start: 45 @38749 has 1 MA's), (Start: 47 @38734 has 1 MA's), (66, 38614), (67, 38611), (78, 38539), (80, 38524), (82, 38509), (91, 38431), (103, 38377),

Gene: Watermelon\_55 Start: 39236, Stop: 38592, Start Num: 12

Candidate Starts for Watermelon\_55:

(Start: 12 @39236 has 28 MA's), (Start: 29 @39113 has 115 MA's), (Start: 41 @39062 has 29 MA's), (Start: 44 @39050 has 4 MA's), (63, 38921), (68, 38900), (69, 38882), (87, 38756), (91, 38723), (95, 38705), (103, 38669), (110, 38639),

Gene: Watson\_62 Start: 38890, Stop: 38231, Start Num: 9

Candidate Starts for Watson\_62:

(Start: 9 @38890 has 573 MA's), (Start: 21 @38797 has 22 MA's), (Start: 33 @38743 has 2 MA's), (Start: 37 @38731 has 23 MA's), (Start: 41 @38704 has 29 MA's), (60, 38584), (76, 38476), (79, 38458), (80, 38452), (95, 38341), (103, 38305), (108, 38287), (110, 38275),

Gene: WeiHuaDA\_60 Start: 39771, Stop: 39139, Start Num: 9

Candidate Starts for WeiHuaDA\_60:

(Start: 9 @39771 has 573 MA's), (Start: 21 @39678 has 22 MA's), (Start: 37 @39624 has 23 MA's), (Start: 41 @39597 has 29 MA's), (Start: 45 @39582 has 1 MA's), (Start: 47 @39567 has 1 MA's), (61, 39483), (67, 39444), (69, 39423), (80, 39357), (87, 39297), (91, 39264), (103, 39210),

Gene: Werner\_39 Start: 28205, Stop: 28855, Start Num: 9

Candidate Starts for Werner\_39:

(Start: 7 @28190 has 37 MA's), (Start: 9 @28205 has 573 MA's), (11, 28208), (Start: 37 @28349 has 23 MA's), (Start: 53 @28433 has 4 MA's), (60, 28490), (61, 28496), (63, 28517), (71, 28562), (73, 28586), (76, 28598), (78, 28607), (79, 28616), (84, 28661), (87, 28682), (102, 28763), (107, 28784), (117, 28832),

Gene: Whabigail7\_60 Start: 39336, Stop: 38704, Start Num: 9

Candidate Starts for Whabigail7\_60:

(Start: 9 @39336 has 573 MA's), (Start: 21 @39243 has 22 MA's), (Start: 37 @39189 has 23 MA's), (Start: 47 @39132 has 1 MA's), (61, 39048), (69, 38988), (79, 38928), (87, 38862), (91, 38829), (103, 38775),

Gene: Whatever\_39 Start: 28190, Stop: 28855, Start Num: 7

Candidate Starts for Whatever\_39:

(Start: 7 @28190 has 37 MA's), (Start: 9 @28205 has 573 MA's), (11, 28208), (Start: 37 @28349 has 23 MA's), (Start: 53 @28433 has 4 MA's), (60, 28490), (61, 28496), (63, 28517), (71, 28562), (73, 28586), (76, 28598), (78, 28607), (79, 28616), (84, 28661), (87, 28682), (102, 28763), (107, 28784), (117, 28832),

Gene: Wheeler\_55 Start: 38989, Stop: 38468, Start Num: 29

Candidate Starts for Wheeler\_55:

(Start: 29 @38989 has 115 MA's), (Start: 37 @38965 has 23 MA's), (Start: 41 @38938 has 29 MA's), (Start: 44 @38926 has 4 MA's), (Start: 52 @38878 has 1 MA's), (73, 38728), (87, 38632), (88, 38629), (91, 38599), (95, 38581), (103, 38545), (110, 38515), (114, 38500),

Gene: WideWale\_60 Start: 38998, Stop: 38366, Start Num: 9

Candidate Starts for WideWale\_60:

(Start: 9 @38998 has 573 MA's), (Start: 21 @38905 has 22 MA's), (Start: 37 @38851 has 23 MA's), (Start: 47 @38794 has 1 MA's), (57, 38740), (60, 38716), (61, 38710), (69, 38650), (79, 38590), (82, 38569), (87, 38524), (91, 38491), (103, 38437),

Gene: Wiks\_60 Start: 37833, Stop: 37201, Start Num: 9

Candidate Starts for Wiks\_60:

(Start: 9 @37833 has 573 MA's), (Start: 21 @37740 has 22 MA's), (Start: 37 @37686 has 23 MA's), (Start: 47 @37629 has 1 MA's), (61, 37545), (69, 37485), (87, 37359), (91, 37326), (95, 37308), (103,

37272), (108, 37254), (110, 37242), (111, 37239),

Gene: Wilbur\_55 Start: 38136, Stop: 37477, Start Num: 9

Candidate Starts for Wilbur\_55:

(Start: 9 @38136 has 573 MA's), (Start: 21 @38043 has 22 MA's), (Start: 25 @38025 has 1 MA's), (Start: 33 @37989 has 2 MA's), (Start: 37 @37977 has 23 MA's), (Start: 41 @37950 has 29 MA's), (Start: 45 @37935 has 1 MA's), (60, 37830), (79, 37704), (80, 37698), (82, 37683), (83, 37668), (95, 37587), (101, 37560), (103, 37551), (119, 37485),

Gene: Wile\_54 Start: 38123, Stop: 37464, Start Num: 9

Candidate Starts for Wile\_54:

(Start: 9 @38123 has 573 MA's), (Start: 21 @38030 has 22 MA's), (Start: 25 @38012 has 1 MA's), (Start: 33 @37976 has 2 MA's), (Start: 37 @37964 has 23 MA's), (Start: 41 @37937 has 29 MA's), (Start: 45 @37922 has 1 MA's), (60, 37817), (79, 37691), (82, 37670), (83, 37655), (95, 37574), (103, 37538), (119, 37472),

Gene: Wilkins\_54 Start: 38503, Stop: 37982, Start Num: 29

Candidate Starts for Wilkins\_54:

(Start: 29 @38503 has 115 MA's), (Start: 37 @38479 has 23 MA's), (Start: 41 @38452 has 29 MA's), (Start: 44 @38440 has 4 MA's), (Start: 52 @38392 has 1 MA's), (67, 38293), (73, 38242), (87, 38146), (88, 38143), (91, 38113), (95, 38095), (96, 38092), (103, 38059), (110, 38029), (111, 38026),

Gene: Wizard007\_55 Start: 38144, Stop: 37485, Start Num: 9

Candidate Starts for Wizard007\_55:

(Start: 9 @38144 has 573 MA's), (Start: 21 @38051 has 22 MA's), (Start: 25 @38033 has 1 MA's), (Start: 33 @37997 has 2 MA's), (Start: 37 @37985 has 23 MA's), (Start: 41 @37958 has 29 MA's), (Start: 45 @37943 has 1 MA's), (60, 37838), (79, 37712), (80, 37706), (82, 37691), (83, 37676), (95, 37595), (101, 37568), (103, 37559), (119, 37493),

Gene: Wizzo\_30 Start: 20840, Stop: 20169, Start Num: 13

Candidate Starts for Wizzo\_30:

(Start: 13 @20840 has 45 MA's), (Start: 47 @20627 has 1 MA's), (Start: 53 @20588 has 4 MA's), (60, 20531), (64, 20495), (67, 20486), (69, 20465), (73, 20435), (93, 20300), (101, 20258), (113, 20201), (118, 20180),

Gene: Wooldri\_64 Start: 38810, Stop: 38151, Start Num: 9

Candidate Starts for Wooldri\_64:

(Start: 9 @38810 has 573 MA's), (Start: 21 @38717 has 22 MA's), (Start: 33 @38663 has 2 MA's), (Start: 37 @38651 has 23 MA's), (Start: 41 @38624 has 29 MA's), (60, 38504), (76, 38396), (79, 38378), (80, 38372), (95, 38261), (103, 38225), (108, 38207), (110, 38195),

Gene: WunderPhul\_61 Start: 37831, Stop: 37199, Start Num: 9

Candidate Starts for WunderPhul\_61:

(Start: 9 @37831 has 573 MA's), (Start: 21 @37738 has 22 MA's), (Start: 37 @37684 has 23 MA's), (Start: 47 @37627 has 1 MA's), (61, 37543), (69, 37483), (87, 37357), (91, 37324), (95, 37306), (103, 37270), (108, 37252), (110, 37240), (111, 37237),

Gene: Xena\_53 Start: 38089, Stop: 37430, Start Num: 9

Candidate Starts for Xena\_53:

(Start: 9 @38089 has 573 MA's), (Start: 21 @37996 has 22 MA's), (Start: 25 @37978 has 1 MA's), (Start: 33 @37942 has 2 MA's), (Start: 37 @37930 has 23 MA's), (Start: 41 @37903 has 29 MA's), (Start: 45 @37888 has 1 MA's), (60, 37783), (79, 37657), (82, 37636), (83, 37621), (95, 37540), (103, 37504), (119, 37438),

Gene: XianYue\_57 Start: 38494, Stop: 37862, Start Num: 9

Candidate Starts for XianYue\_57:

(Start: 9 @38494 has 573 MA's), (Start: 21 @38401 has 22 MA's), (Start: 37 @38347 has 23 MA's), (Start: 41 @38320 has 29 MA's), (Start: 45 @38305 has 1 MA's), (61, 38206), (69, 38146), (87, 38020), (91, 37987), (103, 37933),

Gene: Yasdnii\_39 Start: 28242, Stop: 28907, Start Num: 7

Candidate Starts for Yasdnii\_39:

(Start: 7 @28242 has 37 MA's), (Start: 9 @28257 has 573 MA's), (11, 28260), (Start: 53 @28485 has 4 MA's), (60, 28542), (61, 28548), (63, 28569), (71, 28614), (73, 28638), (76, 28650), (78, 28659), (79, 28668), (84, 28713), (87, 28734), (102, 28815), (107, 28836), (117, 28884),

Gene: Yecey3\_60 Start: 38719, Stop: 38093, Start Num: 9

Candidate Starts for Yecey3\_60:

(Start: 9 @38719 has 573 MA's), (17, 38674), (Start: 21 @38626 has 22 MA's), (Start: 24 @38611 has 2 MA's), (Start: 37 @38578 has 23 MA's), (Start: 47 @38521 has 1 MA's), (60, 38443), (61, 38437), (69, 38377), (79, 38317), (80, 38311), (87, 38251), (103, 38164),

Gene: YoSam321\_55 Start: 38133, Stop: 37474, Start Num: 9

Candidate Starts for YoSam321\_55:

(Start: 9 @38133 has 573 MA's), (Start: 21 @38040 has 22 MA's), (Start: 25 @38022 has 1 MA's), (Start: 33 @37986 has 2 MA's), (Start: 37 @37974 has 23 MA's), (Start: 41 @37947 has 29 MA's), (Start: 45 @37932 has 1 MA's), (60, 37827), (79, 37701), (80, 37695), (82, 37680), (83, 37665), (95, 37584), (101, 37557), (103, 37548), (119, 37482),

Gene: Yogi\_47 Start: 35251, Stop: 34592, Start Num: 9

Candidate Starts for Yogi\_47:

(Start: 9 @35251 has 573 MA's), (Start: 26 @35128 has 3 MA's), (Start: 37 @35092 has 23 MA's), (Start: 41 @35065 has 29 MA's), (Start: 47 @35035 has 1 MA's), (Start: 52 @35005 has 1 MA's), (Start: 53 @35002 has 4 MA's), (54, 34996), (60, 34945), (67, 34900), (69, 34879), (80, 34813), (108, 34648), (111, 34633),

Gene: Yokurt\_61 Start: 37833, Stop: 37201, Start Num: 9

Candidate Starts for Yokurt\_61:

(Start: 9 @37833 has 573 MA's), (Start: 21 @37740 has 22 MA's), (Start: 37 @37686 has 23 MA's), (Start: 47 @37629 has 1 MA's), (61, 37545), (69, 37485), (87, 37359), (91, 37326), (95, 37308), (103, 37272), (108, 37254), (110, 37242), (111, 37239),

Gene: Yoncess\_47 Start: 35034, Stop: 34375, Start Num: 9

Candidate Starts for Yoncess\_47:

(Start: 9 @35034 has 573 MA's), (Start: 26 @34911 has 3 MA's), (Start: 37 @34875 has 23 MA's), (Start: 41 @34848 has 29 MA's), (Start: 47 @34818 has 1 MA's), (Start: 52 @34788 has 1 MA's), (Start: 53 @34785 has 4 MA's), (54, 34779), (60, 34728), (67, 34683), (69, 34662), (80, 34596), (108, 34431), (111, 34416),

Gene: Yosif\_42 Start: 30304, Stop: 30969, Start Num: 7

Candidate Starts for Yosif\_42:

(Start: 7 @30304 has 37 MA's), (Start: 9 @30319 has 573 MA's), (17, 30364), (60, 30604), (67, 30649), (73, 30700), (84, 30775), (102, 30877), (107, 30898),

Gene: Zainub\_42 Start: 29607, Stop: 30269, Start Num: 6

Candidate Starts for Zainub\_42:

(Start: 6 @29607 has 32 MA's), (15, 29655), (17, 29670), (19, 29691), (28, 29748), (Start: 43 @29808 has 1 MA's), (63, 29937), (82, 30057), (84, 30081), (115, 30237), (117, 30249),

Gene: Zaka\_61 Start: 37833, Stop: 37201, Start Num: 9

Candidate Starts for Zaka\_61:

(Start: 9 @37833 has 573 MA's), (Start: 21 @37740 has 22 MA's), (Start: 37 @37686 has 23 MA's), (Start: 47 @37629 has 1 MA's), (61, 37545), (69, 37485), (87, 37359), (91, 37326), (95, 37308), (103, 37272), (108, 37254), (110, 37242), (111, 37239),

Gene: Zeeculate\_53 Start: 39869, Stop: 39348, Start Num: 29

Candidate Starts for Zeeculate\_53:

(Start: 29 @39869 has 115 MA's), (Start: 37 @39845 has 23 MA's), (Start: 41 @39818 has 29 MA's), (Start: 44 @39806 has 4 MA's), (Start: 52 @39758 has 1 MA's), (73, 39608), (87, 39512), (91, 39479), (95, 39461), (103, 39425), (110, 39395),

Gene: Zeigle\_57 Start: 30551, Stop: 29919, Start Num: 9

Candidate Starts for Zeigle\_57:

(Start: 9 @30551 has 573 MA's), (Start: 13 @30533 has 45 MA's), (15, 30521), (Start: 47 @30353 has 1 MA's), (50, 30329), (59, 30290), (67, 30227), (79, 30146), (87, 30080), (99, 30017),

Gene: Zemlya\_41 Start: 28738, Stop: 29403, Start Num: 7

Candidate Starts for Zemlya\_41:

(Start: 7 @28738 has 37 MA's), (Start: 9 @28753 has 573 MA's), (11, 28756), (Start: 53 @28981 has 4 MA's), (60, 29038), (61, 29044), (63, 29065), (64, 29074), (71, 29110), (73, 29134), (76, 29146), (78, 29155), (79, 29164), (84, 29209), (87, 29230), (102, 29311), (107, 29332), (117, 29380),

Gene: Zephyr\_55 Start: 38926, Stop: 38348, Start Num: 20

Candidate Starts for Zephyr\_55:

(Start: 20 @38926 has 38 MA's), (Start: 29 @38869 has 115 MA's), (Start: 37 @38845 has 23 MA's), (Start: 41 @38818 has 29 MA's), (Start: 44 @38806 has 4 MA's), (Start: 52 @38758 has 1 MA's), (73, 38608), (87, 38512), (88, 38509), (91, 38479), (95, 38461), (103, 38425), (110, 38395), (111, 38392),

Gene: Zetzy\_61 Start: 38461, Stop: 37802, Start Num: 9

Candidate Starts for Zetzy\_61:

(Start: 9 @38461 has 573 MA's), (Start: 21 @38368 has 22 MA's), (Start: 33 @38314 has 2 MA's), (Start: 37 @38302 has 23 MA's), (Start: 41 @38275 has 29 MA's), (60, 38155), (76, 38047), (79, 38029), (80, 38023), (95, 37912), (103, 37876), (108, 37858), (110, 37846),

Gene: Zeuska\_53 Start: 39537, Stop: 38959, Start Num: 20

Candidate Starts for Zeuska\_53:

(Start: 20 @39537 has 38 MA's), (Start: 29 @39480 has 115 MA's), (Start: 37 @39456 has 23 MA's), (Start: 41 @39429 has 29 MA's), (Start: 44 @39417 has 4 MA's), (Start: 52 @39369 has 1 MA's), (67, 39270), (73, 39219), (87, 39123), (91, 39090), (95, 39072), (103, 39036), (110, 39006),

Gene: Zimmer\_56 Start: 39879, Stop: 39253, Start Num: 9

Candidate Starts for Zimmer\_56:

(Start: 9 @39879 has 573 MA's), (Start: 21 @39786 has 22 MA's), (Start: 37 @39738 has 23 MA's), (Start: 41 @39711 has 29 MA's), (Start: 45 @39696 has 1 MA's), (60, 39603), (61, 39597), (69, 39537), (79, 39477), (80, 39471), (87, 39411), (91, 39378), (95, 39360), (103, 39324), (111, 39291),

Gene: Zolita\_55 Start: 39289, Stop: 38627, Start Num: 9

Candidate Starts for Zolita\_55:

(Start: 9 @39289 has 573 MA's), (Start: 21 @39196 has 22 MA's), (Start: 25 @39178 has 1 MA's),  
(Start: 33 @39136 has 2 MA's), (Start: 37 @39124 has 23 MA's), (Start: 41 @39097 has 29 MA's),  
(Start: 44 @39085 has 4 MA's), (69, 38920), (80, 38854), (81, 38845), (83, 38824), (87, 38794), (89,  
38788), (91, 38761), (101, 38716), (103, 38707), (108, 38689), (110, 38677), (111, 38674),

Gene: ZooBear\_58 Start: 30975, Stop: 30343, Start Num: 9

Candidate Starts for ZooBear\_58:

(Start: 9 @30975 has 573 MA's), (Start: 13 @30957 has 45 MA's), (15, 30945), (22, 30885), (Start: 47  
@30777 has 1 MA's), (48, 30759), (50, 30753), (80, 30564), (87, 30504),

Gene: Zulu\_62 Start: 38211, Stop: 37579, Start Num: 9

Candidate Starts for Zulu\_62:

(Start: 9 @38211 has 573 MA's), (Start: 21 @38118 has 22 MA's), (Start: 37 @38064 has 23 MA's),  
(Start: 47 @38007 has 1 MA's), (61, 37923), (69, 37863), (87, 37737), (91, 37704), (95, 37686), (103,  
37650), (108, 37632), (110, 37620), (111, 37617),

Gene: phiCAM\_38 Start: 31902, Stop: 32324, Start Num: 53

Candidate Starts for phiCAM\_38:

(Start: 7 @31659 has 37 MA's), (Start: 9 @31674 has 573 MA's), (Start: 53 @31902 has 4 MA's), (60,  
31959), (61, 31965), (63, 31986), (64, 31995), (73, 32055), (74, 32058), (76, 32067), (84, 32130), (102,  
32232), (107, 32253), (117, 32301),

Gene: phiHau3\_41 Start: 28474, Stop: 28935, Start Num: 43

Candidate Starts for phiHau3\_41:

(Start: 9 @28291 has 573 MA's), (15, 28321), (Start: 43 @28474 has 1 MA's), (63, 28603), (79, 28702),  
(82, 28723), (84, 28747), (87, 28768), (89, 28774), (107, 28870),