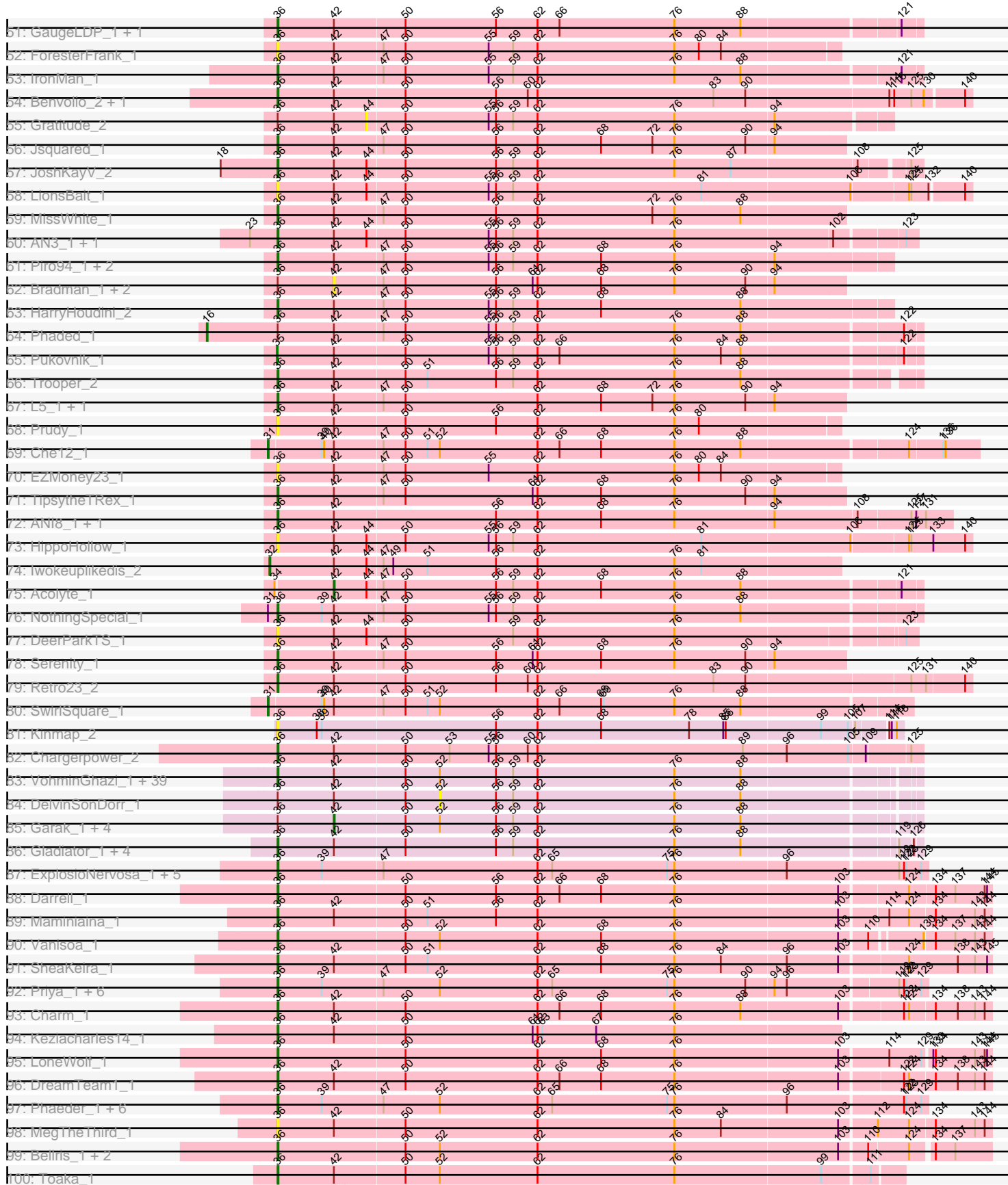


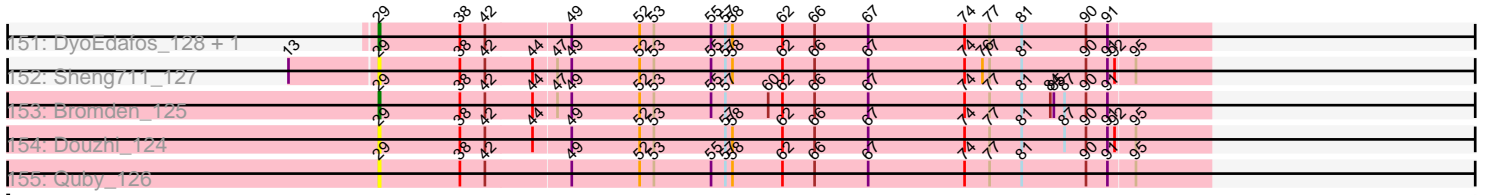


Pham 304629





Pham 304629



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 304629 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304629 has 374 members, 52 are drafts.

Phages represented in each track:

- Track 1 : Wolpertinger\_1, Joselito\_1, Kimba\_1, Petersenfast\_1, Insomnia\_1, Mabel\_1, Salz\_1
- Track 2 : MaCh\_1, Gilberta\_1
- Track 3 : Sham4\_1, Flaverint\_1, Et2Brutus\_1, Fibonacci\_1, Aneem\_1, Timothy\_1, Munch\_1, Lucivia\_1, Hutc2\_1, TinyTimmy\_1, Mulciber\_1, Bowtie\_1, Snape\_1, Jabith\_1, Orange\_1
- Track 4 : Ebony\_1
- Track 5 : Saskia\_1
- Track 6 : Bachome\_1
- Track 7 : Bud\_1
- Track 8 : Refuge\_1
- Track 9 : Zimmer\_1
- Track 10 : Steamy\_1
- Track 11 : DARTHPhader\_1
- Track 12 : Pharaoh\_1
- Track 13 : SororFago\_1
- Track 14 : Sunhee\_1
- Track 15 : Luchador\_1, Gail\_1
- Track 16 : Jeeves\_1
- Track 17 : Waits\_1, Epsocamisio\_1, Nebulosus\_1, Ravana\_1, Strosahl\_1, JSwag\_1, Boohoo\_1, LastResort\_1, Remus\_1, Looper\_1, ReMo\_1, Anaysia\_1
- Track 18 : Anon\_1
- Track 19 : Switzerland\_1, Rosalind\_1, MinecraftSteve\_2, DekHockey33\_1, KatherineG\_1, ShayRa\_2, Battleship\_2, Soups\_1
- Track 20 : Elle\_1
- Track 21 : Nedarya\_1
- Track 22 : LogiBear\_1
- Track 23 : Warrior24\_1, Oofda\_1
- Track 24 : EagleEye\_1, PainterBoy\_1, Lucyedi\_1
- Track 25 : 40AC\_2
- Track 26 : NicoleTera\_1
- Track 27 : Journey13\_1
- Track 28 : Lokk\_2, Miko\_2, Rachaly\_2, BobSwaget\_2
- Track 29 : Adzzy\_1
- Track 30 : AnnaL29\_1, RedRock\_1
- Track 31 : Loser\_1, Changeling\_1, ArcherNM\_1

- Track 32 : NaSiaTalie\_2, Flare16\_2, WideWale\_2, Sknot\_2, Terrific\_2, Equemioh13\_2, MiculUcigas\_2, Centaur\_2, Updawg\_2
- Track 33 : Buggy\_2, Agape74\_2, Smeagan\_2, Jerm\_2, Dignity\_2, LilTurb\_2, AbbyPaige\_2, Leviathan\_2, Whabigail7\_2, Turbido\_2
- Track 34 : Larenn\_2, Malec\_2
- Track 35 : DudeLittle\_2, Anselm\_2, Dalmatian\_2
- Track 36 : Leogania\_1, BiancaTri92\_1
- Track 37 : StarStuff\_1, Tomathan\_1, D32\_1, Travvers\_1, VC3\_1, Kerberos\_1, D29\_1, DBQu4n\_1, Naji\_1, Duplo\_1, Pomar16\_1
- Track 38 : Landor\_1, Bactobuster\_1
- Track 39 : XianYue\_1
- Track 40 : TarsusIV\_2
- Track 41 : QueenB2\_2, Heffalump\_2, Fameo\_2
- Track 42 : Caraxes\_1, Superchunk\_1
- Track 43 : SemperFi\_2, SnapTap\_2, SweetiePie\_2, Georgie2\_2, Power\_2, Crucio\_2, QueenBeesly\_2, FiringLine\_2
- Track 44 : Jaan\_1, Tristan\_1
- Track 45 : C3\_01
- Track 46 : CRB1\_1, LadyBird\_1
- Track 47 : Deloris\_1, BengiVuitton\_1
- Track 48 : Colin\_1, Kalpine\_2, WeiHuaDA\_2, Trixie\_1
- Track 49 : First\_001, 20ES\_1
- Track 50 : EvilGenius\_2, KingCyrus\_2, ChipMunk\_2
- Track 51 : GaugeLDP\_1, BabyBack\_1
- Track 52 : ForesterFrank\_1
- Track 53 : IronMan\_1
- Track 54 : Benvolio\_2, Echild\_2
- Track 55 : Gratitude\_2
- Track 56 : Jsquared\_1
- Track 57 : JoshKayV\_2
- Track 58 : LionsBait\_1
- Track 59 : MissWhite\_1
- Track 60 : AN3\_1, VA6\_1
- Track 61 : Piro94\_1, Drake55\_2, Baehexic\_2
- Track 62 : Bradman\_1, MajorMajor\_1, Quokka\_1
- Track 63 : HarryHoudini\_2
- Track 64 : Phaded\_1
- Track 65 : Pukovnik\_1
- Track 66 : Trooper\_2
- Track 67 : L5\_1, Koduck\_1
- Track 68 : Prudy\_1
- Track 69 : Che12\_1
- Track 70 : EZMoney23\_1
- Track 71 : TopsytheTRex\_1
- Track 72 : ANI8\_1, AN9\_1
- Track 73 : HippoHollow\_1
- Track 74 : Iwokeuplikedis\_2
- Track 75 : Acolyte\_1
- Track 76 : NothingSpecial\_1
- Track 77 : DeerParkTS\_1
- Track 78 : Serenity\_1
- Track 79 : Retro23\_2
- Track 80 : SwirlSquare\_1

- Track 81 : Kinmap\_2
- Track 82 : Chargerpower\_2
- Track 83 : VohminGhazi\_1, Dorothea\_1, SuperAwesome\_1, Indra\_1, DaVinci\_1, CloudWang3\_1, BennyP\_1, Helmet\_1, Chartreuse\_1, Artemis2UCLA\_1, EricB\_1, BlessJoy\_1, SuperCallie99\_1, BABullseye\_1, JewelBug\_1, Wiks\_1, Jeffabunny\_1, Kipper29\_1, Yokurt\_1, Cookiedough\_1, Pmask\_1, Lilbunny\_1, Zulu\_1, Tucker\_1, McFly\_1, Koko\_1, SmellyB\_1, Jordennis\_1, WunderPhul\_1, Roksolana\_1, Hexamo\_1, Zaka\_1, Hoot\_1, ToneTone\_1, Kazan\_1, Newrala\_1, Isiphiwo\_1, Blinn1\_1, Polyphemus\_1, Neeharika16\_1
- Track 84 : DelvinSonDorr\_1
- Track 85 : Garak\_1, Priamo\_1, GreedyLawyer\_1, Temprado\_1, Candra\_1
- Track 86 : Gladiator\_1, Rifter\_1, Gruunaga\_1, Hammer\_1, Blue7\_1
- Track 87 : ExplosioNervosa\_1, Scherzo\_1, Pioneer\_1, Beemo\_1, Phonnegut\_1, Fayely\_1
- Track 88 : Darrell\_1
- Track 89 : Maminiaina\_1
- Track 90 : Vanisoa\_1
- Track 91 : SheaKeira\_1
- Track 92 : Priya\_1, Conquerage\_1, Eidsmoe\_1, Qobbit\_1, EmyBug\_1, Alma\_1, Spouty\_1
- Track 93 : Charm\_1
- Track 94 : Keziacharles14\_1
- Track 95 : LoneWolf\_1
- Track 96 : DreamTeam1\_1
- Track 97 : Phaeder\_1, HortumSL17\_1, Tubs\_1, Aliter\_1, Myxus\_1, Catalina\_1, PackMan\_1
- Track 98 : MegTheThird\_1
- Track 99 : Bellris\_1, Rahalelujah\_1, CogOmlette\_1
- Track 100 : Toaka\_1
- Track 101 : Elephantoon\_1
- Track 102 : BogosyJay\_1
- Track 103 : Celestialunch\_2
- Track 104 : Yecey3\_1
- Track 105 : Arissanae\_1
- Track 106 : Wyatt2\_112, AvadaKedavra\_111, LeBron\_110
- Track 107 : Wamburgrxpress\_110, MAckerman\_112, CicholasNage\_107, Acquire49\_111, Halena\_111
- Track 108 : UPIE\_110
- Track 109 : Rose5\_112, Tyson\_113
- Track 110 : Enceladus\_108, DirkDirk\_108
- Track 111 : Poochiewood\_108
- Track 112 : Calm\_116, Zaria\_114
- Track 113 : Silverleaf\_109
- Track 114 : JoeDirt\_111
- Track 115 : Appletree2\_110
- Track 116 : OhShagHennessy\_105
- Track 117 : Nicholasp3\_117, Gardann\_116, Underpass\_109, LilDestine\_114
- Track 118 : Bazzle\_114
- Track 119 : Vetrrix\_116
- Track 120 : ZhongYanYuan\_113
- Track 121 : Crossroads\_120, GuuelaD\_113
- Track 122 : BigCheese\_116, Netyap\_115, Rumpelstiltskin\_103, Itos\_117, Gabriela\_117, Winky\_117, Faith1\_115, DrSeegs\_115, Breezona\_117, Zakai\_119,

- BobsGarage\_116, Miley16\_117
- Track 123 : Archie\_115
  - Track 124 : SoJulia\_119
  - Track 125 : Wilder\_117, Wigglewiggles\_117, Sarshaun\_118, Soap141\_117, Loadrie\_117, MkaliMitinis3\_120, Lynnae\_117, Kahlid\_116
  - Track 126 : Baoshan\_117
  - Track 127 : DHan\_119
  - Track 128 : Claus\_116
  - Track 129 : Lewan\_118
  - Track 130 : DanBing\_119
  - Track 131 : Finemlucis\_115
  - Track 132 : Rossetti\_116
  - Track 133 : Tourach\_117
  - Track 134 : Jubie\_113, MsGreen\_114
  - Track 135 : Nicholas\_111, Moostard\_109, Finnry\_113, Kingsolomon\_111, Bellis\_114
  - Track 136 : Lolly9\_114, MiniLon\_119
  - Track 137 : TriFive\_114, Snenia\_112, Lumos\_113, Jobypre\_113, Red305\_114
  - Track 138 : Samty\_113
  - Track 139 : Whirlwind\_115
  - Track 140 : Ellson\_113, BourbonZero\_115
  - Track 141 : MiniMac\_119
  - Track 142 : KirDoubleO7\_112
  - Track 143 : Krypton555\_117
  - Track 144 : DuncansLeg\_115
  - Track 145 : Clautastrophe\_112
  - Track 146 : FarmResident\_127
  - Track 147 : Chaser\_123, BrainDrainer\_125
  - Track 148 : PYPDinur\_127
  - Track 149 : ChutneyChips\_127
  - Track 150 : Douge\_127
  - Track 151 : DyoEdafos\_128, Kropertea\_121
  - Track 152 : Sheng711\_127
  - Track 153 : Bromden\_125
  - Track 154 : Douzhi\_124
  - Track 155 : Quby\_126

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

The start number called the most often in the published annotations is 36, it was called in 224 of the 322 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_1, 40AC\_2, AN3\_1, AN9\_1, ANI8\_1, AbbyPaige\_2, Agape74\_2, Aliter\_1, Alma\_1, Anaysia\_1, Aneem\_1, AnnaL29\_1, Anon\_1, Anselm\_2, ArcherNM\_1, Arissanae\_1, Artemis2UCLA\_1, BABullseye\_1, BabyBack\_1, Bactobuster\_1, Baehexic\_2, Battleship\_2, Beemo\_1, Bellris\_1, BengiVuitton\_1, BennyP\_1, Benvolio\_2, BiancaTri92\_1, BlessJoy\_1, Blinn1\_1, Blue7\_1, BobSwaget\_2, BogosyJay\_1, Boohoo\_1, Bowtie\_1, Bud\_1, Buggy\_2, CRB1\_1, Catalina\_1, Celestiallunch\_2, Centaur\_2, Changeling\_1, Chargerpower\_2, Charm\_1,

Chartreuse\_1, ChipMunk\_2, CloudWang3\_1, CogOmlette\_1, Colin\_1, Conquerage\_1, Cookiedough\_1, Crucio\_2, D29\_1, D32\_1, DBQu4n\_1, DaVinci\_1, Dalmatian\_2, Darrell\_1, DeerParkTS\_1, DekHockey33\_1, Deloris\_1, Dignity\_2, Dorothea\_1, Drake55\_2, DreamTeam1\_1, DudeLittle\_2, Duplo\_1, EZMoney23\_1, EagleEye\_1, Ebony\_1, Echild\_2, Eidsmoe\_1, Elephantoon\_1, Elle\_1, EmyBug\_1, Epsocamisio\_1, Equemioh13\_2, EricB\_1, Et2Brutus\_1, EvilGenius\_2, ExplosioNervosa\_1, Fameo\_2, Fayely\_1, Fibonacci\_1, FiringLine\_2, First\_001, Flare16\_2, Flaverint\_1, ForesterFrank\_1, Gail\_1, GaugeLDP\_1, Georgie2\_2, Gilberta\_1, Gladiator\_1, Gruunaga\_1, Hammer\_1, HarryHoudini\_2, Heffalump\_2, Helmet\_1, Hexamo\_1, HippoHollow\_1, Hoot\_1, HortumSL17\_1, Hutc2\_1, Indra\_1, IronMan\_1, Isiphiwo\_1, JSwag\_1, Jaan\_1, Jabith\_1, Jeeves\_1, Jeffabunny\_1, Jerm\_2, JewelBug\_1, Jordennis\_1, JoshKayV\_2, Journey13\_1, Jsquared\_1, Kalpine\_2, KatherineG\_1, Kazan\_1, Kerberos\_1, Keziacharles14\_1, KingCyrus\_2, Kinmap\_2, Kipper29\_1, Koduck\_1, Koko\_1, L5\_1, LadyBird\_1, Landor\_1, Larenn\_2, LastResort\_1, Leogania\_1, Leviathan\_2, LilTurb\_2, Lilbunny\_1, LionsBait\_1, LogiBear\_1, Lokk\_2, LoneWolf\_1, Looper\_1, Loser\_1, Luchador\_1, Lucivia\_1, Lucyedi\_1, MaCh\_1, Malec\_2, Maminiaina\_1, McFly\_1, MegTheThird\_1, MiculUcigas\_2, Miko\_2, MinecraftSteve\_2, MissWhite\_1, Mulciber\_1, Munch\_1, Myxus\_1, NaSiaTalie\_2, Naji\_1, Nebulosus\_1, Nedarya\_1, Neeharika16\_1, Newrala\_1, NicoleTera\_1, NothingSpecial\_1, Oofda\_1, Orange\_1, PackMan\_1, PainterBoy\_1, Phaeder\_1, Phonnegut\_1, Pioneer\_1, Piro94\_1, Pmask\_1, Polyphemos\_1, Pomar16\_1, Power\_2, Priya\_1, Prudy\_1, Qobbit\_1, QueenB2\_2, QueenBeesly\_2, Rachaly\_2, Rahalelujah\_1, Ravana\_1, ReMo\_1, RedRock\_1, Remus\_1, Retro23\_2, Rifter\_1, Roksolana\_1, Rosalind\_1, Scherzo\_1, SemperFi\_2, Serenity\_1, Sham4\_1, ShayRa\_2, SheaKeira\_1, Sknot\_2, Smeagan\_2, SmellyB\_1, SnapTap\_2, Snape\_1, SororFago\_1, Soups\_1, Spouty\_1, StarStuff\_1, Strosahl\_1, SuperAwesome\_1, SuperCallie99\_1, SweetiePie\_2, Switzerland\_1, TarsusIV\_2, Terrific\_2, Timothy\_1, TinyTimmy\_1, TopsytheTRex\_1, Toaka\_1, Tomathan\_1, ToneTone\_1, Travvers\_1, Tristan\_1, Trixie\_1, Trooper\_2, Tubs\_1, Tucker\_1, Turbido\_2, Updawg\_2, VA6\_1, VC3\_1, Vanisoa\_1, VohminGhazi\_1, Waits\_1, Warrior24\_1, WeiHuaDA\_2, Whabigail7\_2, WideWale\_2, Wiks\_1, WunderPhul\_1, XianYue\_1, Yecey3\_1, Yokurt\_1, Zaka\_1, Zulu\_1,

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

- Bachome\_1, Bradman\_1, C3\_01, Candra\_1, DelvinSonDorr\_1, Garak\_1, Gratitude\_2, GreedyLawyer\_1, Insomnia\_1, Joselito\_1, Kimba\_1, Mabel\_1, MajorMajor\_1, Petersenfast\_1, Phaded\_1, Priamo\_1, Quokka\_1, Salz\_1, Saskia\_1, Sunhee\_1, Temprado\_1, Wolpertinger\_1,

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

- Acolyte\_1, Acquire49\_111, Adzzy\_1, Appletree2\_110, Archie\_115, AvadaKedavra\_111, Baoshan\_117, Bazzle\_114, Bellis\_114, BigCheese\_116, BobsGarage\_116, BourbonZero\_115, BrainDrainer\_125, Breezona\_117, Bromden\_125, Calm\_116, Caraxes\_1, Chaser\_123, Che12\_1, ChutneyChips\_127, CicholasNage\_107, Claus\_116, Clautastrophe\_112, Crossroads\_120, DHan\_119, DanBing\_119, DarthPhader\_1, DirkDirk\_108, Douge\_127, Douzhi\_124, DrSeegs\_115, DuncansLeg\_115, DyoEdafos\_128, Ellson\_113, Enceladus\_108, Faith1\_115, FarmResident\_127, Finemlucis\_115, Finnry\_113, Gabriela\_117, Gardann\_116, GuuelaD\_113, Halena\_111, Itos\_117, Iwokeuplikedis\_2, Jobypre\_113, JoeDirt\_111, Jubie\_113, Kahlid\_116, Kingsolomon\_111, KirDoubleO7\_112, Kropertea\_121, Krypton555\_117, LeBron\_110, Lewan\_118, LilDestine\_114, Loadrie\_117, Lolly9\_114, Lumos\_113, Lynnae\_117, MAckerman\_112, Miley16\_117, MiniLon\_119, MiniMac\_119, MkaliMitinis3\_120, Moostard\_109, MsGreen\_114,

Netyap\_115, Nicholas\_111, Nicholasp3\_117, OhShagHennessy\_105, PYPDinur\_127, Pharaoh\_1, Poochiewood\_108, Pukovnik\_1, Quby\_126, Red305\_114, Refuge\_1, Rose5\_112, Rossetti\_116, Rumpelstiltskin\_103, Samty\_113, Sarshaun\_118, Sheng711\_127, Silverleaf\_109, Snenia\_112, SoJulia\_119, Soap141\_117, Steamy\_1, Superchunk\_1, SwirlSquare\_1, Tourach\_117, TriFive\_114, Tyson\_113, UPIE\_110, Underpass\_109, Vetrrix\_116, Wamburggrxpress\_110, Whirlwind\_115, Wigglewiggles\_117, Wilder\_117, Winky\_117, Wyatt2\_112, Zakai\_119, Zaria\_114, ZhongYanYuan\_113, Zimmer\_1,

### Summary by start number:

#### Start 12:

- Found in 14 of 374 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 2 of 322
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Jubie\_113 (L3), KirDoubleO7\_112 (L3), MsGreen\_114 (L3),

#### Start 16:

- Found in 3 of 374 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 322
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Phaded\_1 (A2),

#### Start 24:

- Found in 1 of 374 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PYPDinur\_127 (L4),

#### Start 29:

- Found in 71 of 374 ( 19.0% ) of genes in pham
- Manual Annotations of this start: 56 of 322
- Called 98.6% of time when present
- Phage (with cluster) where this start called: Acquire49\_111 (L1), Appletree2\_110 (L1), Archie\_115 (L2), AvadaKedavra\_111 (L1), Baoshan\_117 (L2), Bazzle\_114 (L2), BigCheese\_116 (L2), BobsGarage\_116 (L2), BrainDrainer\_125 (L4), Breezona\_117 (L2), Bromden\_125 (L4), Calm\_116 (L1), Chaser\_123 (L4), ChutneyChips\_127 (L4), CicholasNage\_107 (L1), Claus\_116 (L2), Crossroads\_120 (L2), DHan\_119 (L2), DanBing\_119 (L2), DirkDirk\_108 (L1), Douge\_127 (L4), Douzhi\_124 (L4), DrSeegs\_115 (L2), DyoEdafos\_128 (L4), Enceladus\_108 (L1), Faith1\_115 (L2), FarmResident\_127 (L4), Finemlucis\_115 (L2), Gabriela\_117 (L2), Gardann\_116 (L2), GuuelaD\_113 (L2), Halena\_111 (L1), Itos\_117 (L2), JoeDirt\_111 (L1), Kahlid\_116 (L2), Kropertea\_121 (L4), LeBron\_110 (L1), Lewan\_118 (L2), LilDestine\_114 (L2), Loadrie\_117 (L2), Lynnae\_117 (L2), MAckerman\_112 (L1), Miley16\_117 (L2), MkaliMitinis3\_120 (L2), Netyap\_115 (L2), Nicholasp3\_117 (L2), OhShagHennessy\_105 (L1), Poochiewood\_108 (L1), Quby\_126 (L4), Rose5\_112 (L1), Rossetti\_116 (L2), Rumpelstiltskin\_103 (L2), Sarshaun\_118 (L2), Sheng711\_127 (L4), Silverleaf\_109 (L1), SoJulia\_119 (L2), Soap141\_117 (L2), Tourach\_117 (L2), Tyson\_113 (L1), UPIE\_110 (L1), Underpass\_109 (L2), Vetrrix\_116 (L2), Wamburggrxpress\_110 (L1), Wigglewiggles\_117 (L2), Wilder\_117 (L2), Winky\_117 (L2), Wyatt2\_112 (L1), Zakai\_119 (L2), Zaria\_114 (L1), ZhongYanYuan\_113 (L2),

Start 30:

- Found in 23 of 374 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 17 of 322
- Called 87.0% of time when present
- Phage (with cluster) where this start called: Bellis\_114 (L3), BourbonZero\_115 (L3), Clautastrophe\_112 (L3), DuncansLeg\_115 (L3), Ellson\_113 (L3), Finnry\_113 (L3), Jobypre\_113 (L3), Kingsolomon\_111 (L3), Krypton555\_117 (L3), Lolly9\_114 (L3), Lumos\_113 (L3), MiniLon\_119 (L3), MiniMac\_119 (L3), Moostard\_109 (L3), Nicholas\_111 (L3), Red305\_114 (L3), Samty\_113 (L3), Snenia\_112 (L3), TriFive\_114 (L3), Whirlwind\_115 (L3),

Start 31:

- Found in 45 of 374 ( 12.0% ) of genes in pham
- Manual Annotations of this start: 13 of 322
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Adzzy\_1 (A2), Bachome\_1 (A11), Caraxes\_1 (A2), Che12\_1 (A2), Insomnia\_1 (A11), Joselito\_1 (A11), Kimba\_1 (A11), Mabel\_1 (A11), Petersenfast\_1 (A11), Pharaoh\_1 (A12), Salz\_1 (A11), Saskia\_1 (A11), Steamy\_1 (A12), Sunhee\_1 (A14), Superchunk\_1 (A2), SwirlSquare\_1 (A2), Wolpertinger\_1 (A11), Zimmer\_1 (A12),

Start 32:

- Found in 1 of 374 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 322
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Iwokeuplikedis\_2 (A2),

Start 35:

- Found in 1 of 374 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 322
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pukovnik\_1 (A2),

Start 36:

- Found in 267 of 374 ( 71.4% ) of genes in pham
- Manual Annotations of this start: 224 of 322
- Called 91.8% of time when present
- Phage (with cluster) where this start called: 20ES\_1 (A2), 40AC\_2 (A17), AN3\_1 (A2), AN9\_1 (A2), ANI8\_1 (A2), AbbyPaige\_2 (A2), Agape74\_2 (A2), Aliter\_1 (A9), Alma\_1 (A9), Anaysia\_1 (A15), Aneem\_1 (A11), AnnaL29\_1 (A2), Anon\_1 (A15), Anselm\_2 (A2), ArcherNM\_1 (A2), Arissanae\_1 (A9), Artemis2UCLA\_1 (A6), BABullseye\_1 (A6), BabyBack\_1 (A2), Bactobuster\_1 (A2), Baehexic\_2 (A2), Battleship\_2 (A15), Beemo\_1 (A9), Bellris\_1 (A9), BengiVuitton\_1 (A2), BennyP\_1 (A6), Benvolio\_2 (A2), BiancaTri92\_1 (A2), BlessJoy\_1 (A6), Blinn1\_1 (A6), Blue7\_1 (A6), BobSwaget\_2 (A2), BogosyJay\_1 (A9), Boohoo\_1 (A15), Bowtie\_1 (A11), Bud\_1 (A11), Buggy\_2 (A2), CRB1\_1 (A2), Catalina\_1 (A9), Celestialunch\_2 (A9), Centaur\_2 (A2), Changeling\_1 (A2), Chargerpower\_2 (A22), Charm\_1 (A9), Chartreuse\_1 (A6), ChipMunk\_2 (A2), CloudWang3\_1 (A6), CogOmlette\_1 (A9), Colin\_1 (A2), Conquerage\_1 (A9), Cookiedough\_1 (A6), Crucio\_2 (A2), D29\_1 (A2), D32\_1 (A2), DBQu4n\_1 (A2), DaVinci\_1 (A6), Dalmatian\_2 (A2), Darrell\_1 (A9), DeerParkTS\_1 (A2), DekHockey33\_1 (A15), Deloris\_1 (A2), Dignity\_2 (A2), Dorothea\_1 (A6), Drake55\_2 (A2), DreamTeam1\_1 (A9), DudeLittle\_2 (A2), Duplo\_1

(A2), EZMoney23\_1 (A2), EagleEye\_1 (A16), Ebony\_1 (A11), Echild\_2 (A2), Eidsmoe\_1 (A9), Elephantoon\_1 (A9), Elle\_1 (A15), EmyBug\_1 (A9), Epsocamisio\_1 (A15), Equemioh13\_2 (A2), EricB\_1 (A6), Et2Brutus\_1 (A11), EvilGenius\_2 (A2), ExplosioNervosa\_1 (A9), Fameo\_2 (A2), Fayely\_1 (A9), Fibonacci\_1 (A11), FiringLine\_2 (A2), First\_001 (A2), Flare16\_2 (A2), Flaverint\_1 (A11), ForesterFrank\_1 (A2), Gail\_1 (A14), GaugeLDP\_1 (A2), Georgie2\_2 (A2), Gilberta\_1 (A11), Gladiator\_1 (A6), Gruunaga\_1 (A6), Hammer\_1 (A6), HarryHoudini\_2 (A2), Heffalump\_2 (A2), Helmet\_1 (A6), Hexamo\_1 (A6), HippoHollow\_1 (A2), Hoot\_1 (A6), HortumSL17\_1 (A9), Hutc2\_1 (A11), Indra\_1 (A6), IronMan\_1 (A2), Isiphiwo\_1 (A6), JSwag\_1 (A15), Jaan\_1 (A2), Jabith\_1 (A11), Jeeves\_1 (A14), Jeffabunny\_1 (A6), Jerm\_2 (A2), JewelBug\_1 (A6), Jordennis\_1 (A6), JoshKayV\_2 (A2), Journey13\_1 (A2), Jsquared\_1 (A2), Kalpine\_2 (A2), KatherineG\_1 (A15), Kazan\_1 (A6), Kerberos\_1 (A2), Keziacharles14\_1 (A9), KingCyrus\_2 (A2), Kinmap\_2 (A21), Kipper29\_1 (A6), Koduck\_1 (A2), Koko\_1 (A6), L5\_1 (A2), LadyBird\_1 (A2), Landor\_1 (A2), Larenn\_2 (A2), LastResort\_1 (A15), Leogania\_1 (A2), Leviathan\_2 (A2), LilTurb\_2 (A2), Lilbunny\_1 (A6), LionsBait\_1 (A2), LogiBear\_1 (A15), Lokk\_2 (A2), LoneWolf\_1 (A9), Looper\_1 (A15), Loser\_1 (A2), Luchador\_1 (A14), Lucivia\_1 (A11), Lucyedi\_1 (A16), MaCh\_1 (A11), Malec\_2 (A2), Maminiaina\_1 (A9), McFly\_1 (A6), MegTheThird\_1 (A9), MiculUcigas\_2 (A2), Miko\_2 (A2), MinecraftSteve\_2 (A15), MissWhite\_1 (A2), Mulciber\_1 (A11), Munch\_1 (A11), Myxus\_1 (A9), NaSiaTalie\_2 (A2), Naji\_1 (A2), Nebulosus\_1 (A15), Nedarya\_1 (A15), Neeharika16\_1 (A6), Newrala\_1 (A6), NicoleTera\_1 (A2), NothingSpecial\_1 (A2), Oofda\_1 (A15), Orange\_1 (A11), PackMan\_1 (A9), PainterBoy\_1 (A16), Phaeder\_1 (A9), Phonnegut\_1 (A9), Pioneer\_1 (A9), Piro94\_1 (A2), Pmask\_1 (A6), Polyphemos\_1 (A6), Pomar16\_1 (A2), Power\_2 (A2), Priya\_1 (A9), Prudy\_1 (A2), Qobbit\_1 (A9), QueenB2\_2 (A2), QueenBeesly\_2 (A2), Rachaly\_2 (A2), Rahalelujah\_1 (A9), Ravana\_1 (A15), ReMo\_1 (A15), RedRock\_1 (A2), Remus\_1 (A15), Retro23\_2 (A2), Rifter\_1 (A6), Roksolana\_1 (A6), Rosalind\_1 (A15), Scherzo\_1 (A9), SemperFi\_2 (A2), Serenity\_1 (A2), Sham4\_1 (A11), ShayRa\_2 (A15), SheaKeira\_1 (A9), Sknot\_2 (A2), Smeagan\_2 (A2), SmellyB\_1 (A6), SnapTap\_2 (A2), Snape\_1 (A11), SororFago\_1 (A14), Soups\_1 (A15), Spouty\_1 (A9), StarStuff\_1 (A2), Strosahl\_1 (A15), SuperAwesome\_1 (A6), SuperCallie99\_1 (A6), SweetiePie\_2 (A2), Switzerland\_1 (A15), TarsusIV\_2 (A2), Terrific\_2 (A2), Timothy\_1 (A11), TinyTimmy\_1 (A11), TipsytheTRex\_1 (A2), Toaka\_1 (A9), Tomathan\_1 (A2), ToneTone\_1 (A6), Travvers\_1 (A2), Tristan\_1 (A2), Trixie\_1 (A2), Trooper\_2 (A2), Tubs\_1 (A9), Tucker\_1 (A6), Turbido\_2 (A2), Updawg\_2 (A2), VA6\_1 (A2), VC3\_1 (A2), Vanisoa\_1 (A9), VohminGhazi\_1 (A6), Waits\_1 (A15), Warrior24\_1 (A15), WeiHuaDA\_2 (A2), Whabigail7\_2 (A2), WideWale\_2 (A2), Wiks\_1 (A6), WunderPhul\_1 (A6), XianYue\_1 (A2), Yecey3\_1 (A9), Yokurt\_1 (A6), Zaka\_1 (A6), Zulu\_1 (A6),

#### Start 38:

- Found in 86 of 374 ( 23.0% ) of genes in pham
- Manual Annotations of this start: 2 of 322
- Called 2.3% of time when present
- Phage (with cluster) where this start called: DARTHPhader\_1 (A12), Refuge\_1 (A12),

#### Start 42:

- Found in 226 of 374 ( 60.4% ) of genes in pham
- Manual Annotations of this start: 5 of 322
- Called 4.4% of time when present
- Phage (with cluster) where this start called: Acolyte\_1 (A2), Bradman\_1 (A2), C3\_01 (A2), Candra\_1 (A6), Garak\_1 (A6), GreedyLawyer\_1 (A6), MajorMajor\_1 (A2),

Priamo\_1 (A6), Quokka\_1 (A2), Temprado\_1 (A6),

Start 44:

- Found in 74 of 374 ( 19.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.4% of time when present
- Phage (with cluster) where this start called: Gratitude\_2 (A2),

Start 52:

- Found in 84 of 374 ( 22.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.2% of time when present
- Phage (with cluster) where this start called: DelvinSonDorr\_1 (A6),

### **Summary by clusters:**

There are 15 clusters represented in this pham: A15, A14, A17, A16, A11, A12, L1, A22, A21, L4, A2, L2, L3, A6, A9,

Info for manual annotations of cluster A11:

- Start number 31 was manually annotated 5 times for cluster A11.
- Start number 36 was manually annotated 19 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 31 was manually annotated 3 times for cluster A12.
- Start number 38 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 31 was manually annotated 1 time for cluster A14.
- Start number 36 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 36 was manually annotated 24 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 36 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 16 was manually annotated 1 time for cluster A2.
- Start number 31 was manually annotated 4 times for cluster A2.
- Start number 32 was manually annotated 1 time for cluster A2.
- Start number 35 was manually annotated 1 time for cluster A2.
- Start number 36 was manually annotated 94 times for cluster A2.
- Start number 42 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A22:

- Start number 36 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A6:

- Start number 36 was manually annotated 45 times for cluster A6.
- Start number 42 was manually annotated 3 times for cluster A6.

Info for manual annotations of cluster A9:

- Start number 36 was manually annotated 34 times for cluster A9.

Info for manual annotations of cluster L1:

- Start number 29 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 29 was manually annotated 31 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 12 was manually annotated 2 times for cluster L3.
- Start number 30 was manually annotated 17 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 29 was manually annotated 6 times for cluster L4.

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

Gene: 20ES\_1 Start: 569, Stop: 1336, Start Num: 36

Candidate Starts for 20ES\_1:

(23, 536), (Start: 36 @569 has 224 MA's), (Start: 42 @638 has 5 MA's), (44, 677), (50, 722), (55, 824), (56, 833), (59, 854), (62, 884), (105, 1262), (108, 1271), (125, 1322),

Gene: 40AC\_2 Start: 502, Stop: 1272, Start Num: 36

Candidate Starts for 40AC\_2:

(Start: 36 @502 has 224 MA's), (Start: 42 @571 has 5 MA's), (50, 655), (55, 757), (56, 766), (62, 817), (66, 844), (76, 985), (121, 1246),

Gene: AN3\_1 Start: 568, Stop: 1329, Start Num: 36

Candidate Starts for AN3\_1:

(23, 535), (Start: 36 @568 has 224 MA's), (Start: 42 @637 has 5 MA's), (44, 676), (50, 721), (55, 823), (56, 832), (59, 853), (62, 883), (76, 1051), (102, 1240), (123, 1315),

Gene: AN9\_1 Start: 391, Stop: 1203, Start Num: 36

Candidate Starts for AN9\_1:

(Start: 36 @391 has 224 MA's), (Start: 42 @460 has 5 MA's), (56, 655), (62, 706), (68, 784), (76, 874), (94, 994), (108, 1093), (125, 1153), (127, 1159), (131, 1171),

Gene: ANI8\_1 Start: 391, Stop: 1203, Start Num: 36

Candidate Starts for ANI8\_1:

(Start: 36 @391 has 224 MA's), (Start: 42 @460 has 5 MA's), (56, 655), (62, 706), (68, 784), (76, 874), (94, 994), (108, 1093), (125, 1153), (127, 1159), (131, 1171),

Gene: AbbyPaige\_2 Start: 642, Stop: 1403, Start Num: 36

Candidate Starts for AbbyPaige\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (62, 957), (76, 1125), (84, 1182), (88, 1206), (102, 1314), (123, 1389),

Gene: Acolyte\_1 Start: 445, Stop: 1143, Start Num: 42

Candidate Starts for Acolyte\_1:

(34, 376), (Start: 42 @445 has 5 MA's), (44, 484), (47, 502), (50, 529), (56, 640), (59, 661), (62, 691), (68, 769), (76, 859), (88, 940), (121, 1120),

Gene: Acquire49\_111 Start: 62227, Stop: 62937, Start Num: 29

Candidate Starts for Acquire49\_111:

(Start: 29 @62227 has 56 MA's), (37, 62281), (Start: 38 @62293 has 2 MA's), (39, 62299), (Start: 42 @62314 has 5 MA's), (47, 62374), (50, 62401), (53, 62455), (55, 62503), (57, 62515), (59, 62533), (62, 62563), (65, 62581), (67, 62635), (76, 62731), (77, 62737), (83, 62779), (85, 62791), (88, 62812), (92, 62842), (94, 62854), (96, 62869), (97, 62896),

Gene: Adzzy\_1 Start: 381, Stop: 1229, Start Num: 31

Candidate Starts for Adzzy\_1:

(Start: 31 @381 has 13 MA's), (39, 444), (40, 447), (Start: 42 @459 has 5 MA's), (47, 516), (50, 543), (51, 570), (52, 585), (62, 705), (66, 732), (68, 783), (76, 873), (88, 954), (136, 1188),

Gene: Agape74\_2 Start: 642, Stop: 1403, Start Num: 36

Candidate Starts for Agape74\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (62, 957), (76, 1125), (84, 1182), (88, 1206), (102, 1314), (123, 1389),

Gene: Aliter\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Aliter\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (122, 1132), (123, 1135), (129, 1153),

Gene: Alma\_1 Start: 380, Stop: 1159, Start Num: 36

Candidate Starts for Alma\_1:

(Start: 36 @380 has 224 MA's), (39, 434), (47, 506), (52, 575), (62, 695), (65, 713), (75, 854), (76, 863), (90, 950), (94, 983), (96, 998), (119, 1124), (122, 1130), (123, 1133), (129, 1151),

Gene: Anaysia\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Anaysia\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Aneem\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Aneem\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: AnnaL29\_1 Start: 370, Stop: 1134, Start Num: 36

Candidate Starts for AnnaL29\_1:

(Start: 36 @370 has 224 MA's), (Start: 42 @439 has 5 MA's), (44, 478), (50, 523), (55, 625), (56, 634), (59, 655), (62, 685), (76, 853), (90, 940), (108, 1072), (125, 1120),

Gene: Anon\_1 Start: 400, Stop: 1161, Start Num: 36

Candidate Starts for Anon\_1:

(Start: 36 @400 has 224 MA's), (43, 472), (50, 553), (54, 631), (62, 715), (68, 793), (115, 1144),

Gene: Anselm\_2 Start: 664, Stop: 1500, Start Num: 36

Candidate Starts for Anselm\_2:

(Start: 36 @664 has 224 MA's), (Start: 42 @733 has 5 MA's), (50, 817), (56, 928), (60, 967), (62, 979), (83, 1195), (90, 1234), (125, 1426), (140, 1492),

Gene: Appletree2\_110 Start: 62268, Stop: 62978, Start Num: 29

Candidate Starts for Appletree2\_110:

(21, 62253), (Start: 29 @62268 has 56 MA's), (37, 62322), (Start: 38 @62334 has 2 MA's), (39, 62340), (Start: 42 @62355 has 5 MA's), (47, 62415), (50, 62442), (53, 62496), (55, 62544), (57, 62556), (59, 62574), (62, 62604), (65, 62622), (67, 62676), (76, 62772), (77, 62778), (83, 62820), (85, 62832), (88, 62853), (92, 62883), (94, 62895), (96, 62910), (97, 62937),

Gene: ArcherNM\_1 Start: 391, Stop: 1155, Start Num: 36

Candidate Starts for ArcherNM\_1:

(Start: 36 @391 has 224 MA's), (Start: 42 @460 has 5 MA's), (44, 499), (50, 544), (55, 646), (56, 655), (59, 676), (62, 706), (76, 874), (108, 1093), (125, 1141),

Gene: Archie\_115 Start: 64370, Stop: 65074, Start Num: 29

Candidate Starts for Archie\_115:

(Start: 29 @64370 has 56 MA's), (Start: 38 @64436 has 2 MA's), (39, 64442), (Start: 42 @64457 has 5 MA's), (50, 64541), (52, 64583), (58, 64661), (59, 64673), (62, 64703), (65, 64721), (67, 64775), (68, 64781), (70, 64793), (73, 64853), (74, 64856), (84, 64925), (89, 64952), (90, 64955), (98, 65045),

Gene: Arissanae\_1 Start: 378, Stop: 1226, Start Num: 36

Candidate Starts for Arissanae\_1:

(Start: 36 @378 has 224 MA's), (50, 531), (52, 573), (62, 693), (76, 861), (103, 1059), (124, 1134), (133, 1155), (134, 1158), (143, 1206), (144, 1218),

Gene: Artemis2UCLA\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Artemis2UCLA\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: AvadaKedavra\_111 Start: 62341, Stop: 63051, Start Num: 29

Candidate Starts for AvadaKedavra\_111:

(Start: 29 @62341 has 56 MA's), (37, 62395), (Start: 38 @62407 has 2 MA's), (39, 62413), (Start: 42 @62428 has 5 MA's), (47, 62488), (50, 62515), (53, 62569), (55, 62617), (57, 62629), (59, 62647), (62, 62677), (65, 62695), (67, 62749), (76, 62845), (77, 62851), (83, 62893), (85, 62905), (88, 62926), (92, 62956), (94, 62968), (96, 62983), (97, 63010),

Gene: BABullseye\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for BABullseye\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: BabyBack\_1 Start: 377, Stop: 1144, Start Num: 36

Candidate Starts for BabyBack\_1:

(Start: 36 @377 has 224 MA's), (Start: 42 @446 has 5 MA's), (50, 530), (56, 641), (62, 692), (66, 719), (76, 860), (88, 941), (121, 1121),

Gene: Bachome\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Bachome\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (76, 850),

Gene: Bactobuster\_1 Start: 387, Stop: 1148, Start Num: 36

Candidate Starts for Bactobuster\_1:

(Start: 16 @303 has 1 MA's), (Start: 36 @387 has 224 MA's), (Start: 42 @456 has 5 MA's), (47, 513), (50, 540), (55, 642), (56, 651), (59, 672), (62, 702), (76, 870), (88, 951), (122, 1131),

Gene: Baehexic\_2 Start: 643, Stop: 1380, Start Num: 36

Candidate Starts for Baehexic\_2:

(Start: 36 @643 has 224 MA's), (Start: 42 @712 has 5 MA's), (47, 769), (50, 796), (55, 898), (56, 907), (59, 928), (62, 958), (68, 1036), (76, 1126), (94, 1246),

Gene: Baoshan\_117 Start: 64773, Stop: 65465, Start Num: 29

Candidate Starts for Baoshan\_117:

(Start: 29 @64773 has 56 MA's), (33, 64782), (Start: 38 @64839 has 2 MA's), (39, 64845), (Start: 42 @64860 has 5 MA's), (46, 64911), (47, 64917), (50, 64944), (58, 65064), (62, 65106), (64, 65115), (65, 65124), (68, 65184), (69, 65187), (74, 65259), (75, 65265), (76, 65274), (84, 65328), (89, 65355), (90, 65358), (94, 65394), (96, 65409),

Gene: Battleship\_2 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for Battleship\_2:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: Bazzle\_114 Start: 64892, Stop: 65593, Start Num: 29

Candidate Starts for Bazzle\_114:

(19, 64865), (Start: 29 @64892 has 56 MA's), (Start: 38 @64958 has 2 MA's), (39, 64964), (Start: 42 @64979 has 5 MA's), (50, 65063), (52, 65105), (58, 65183), (59, 65195), (62, 65225), (65, 65243), (67, 65297), (68, 65303), (70, 65315), (73, 65375), (74, 65378), (84, 65447), (89, 65474), (90, 65477), (98, 65567),

Gene: Beemo\_1 Start: 380, Stop: 1162, Start Num: 36

Candidate Starts for Beemo\_1:

(Start: 36 @380 has 224 MA's), (39, 434), (47, 506), (62, 695), (65, 713), (75, 854), (76, 863), (96, 998), (119, 1127), (122, 1133), (123, 1136), (129, 1154),

Gene: Bellis\_114 Start: 64329, Stop: 65036, Start Num: 30

Candidate Starts for Bellis\_114:

(Start: 12 @64254 has 2 MA's), (20, 64305), (26, 64320), (Start: 30 @64329 has 17 MA's), (Start: 38 @64395 has 2 MA's), (39, 64401), (48, 64482), (49, 64485), (50, 64500), (55, 64602), (57, 64614), (58, 64620), (62, 64662), (64, 64671), (67, 64734), (74, 64815), (77, 64836), (87, 64899), (94, 64953), (96, 64968), (97, 64995), (98, 65007),

Gene: Bellris\_1 Start: 356, Stop: 1204, Start Num: 36

Candidate Starts for Bellris\_1:

(Start: 36 @356 has 224 MA's), (50, 509), (52, 551), (62, 671), (76, 839), (103, 1037), (110, 1067), (124, 1112), (134, 1136), (137, 1160),

Gene: BengiVuitton\_1 Start: 432, Stop: 1193, Start Num: 36

Candidate Starts for BengiVuitton\_1:

(23, 399), (Start: 36 @432 has 224 MA's), (Start: 42 @501 has 5 MA's), (44, 540), (50, 585), (55, 687), (56, 696), (62, 747), (76, 915), (102, 1104), (123, 1179),

Gene: BennyP\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for BennyP\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Benvolio\_2 Start: 662, Stop: 1495, Start Num: 36

Candidate Starts for Benvolio\_2:

(Start: 36 @662 has 224 MA's), (Start: 42 @731 has 5 MA's), (50, 815), (56, 926), (60, 965), (62, 977), (83, 1193), (90, 1232), (114, 1400), (116, 1406), (125, 1427), (130, 1442), (140, 1487),

Gene: BiancaTri92\_1 Start: 390, Stop: 1157, Start Num: 36

Candidate Starts for BiancaTri92\_1:

(Start: 36 @390 has 224 MA's), (44, 498), (47, 516), (50, 543), (55, 645), (56, 654), (59, 675), (62, 705), (76, 873), (94, 993), (122, 1140), (124, 1146),

Gene: BigCheese\_116 Start: 64844, Stop: 65533, Start Num: 29

Candidate Starts for BigCheese\_116:

(Start: 29 @64844 has 56 MA's), (33, 64853), (Start: 38 @64910 has 2 MA's), (47, 64988), (49, 65000), (53, 65069), (60, 65165), (62, 65177), (66, 65204), (67, 65249), (74, 65330), (75, 65336), (77, 65351), (81, 65378), (84, 65402), (89, 65429), (91, 65450), (92, 65456), (96, 65480),

Gene: BlessJoy\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for BlessJoy\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Blinn1\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Blinn1\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Blue7\_1 Start: 410, Stop: 1171, Start Num: 36

Candidate Starts for Blue7\_1:

(Start: 36 @410 has 224 MA's), (Start: 42 @479 has 5 MA's), (50, 563), (56, 674), (59, 695), (62, 725), (76, 893), (88, 974), (119, 1148), (126, 1163),

Gene: BobSwaget\_2 Start: 621, Stop: 1388, Start Num: 36

Candidate Starts for BobSwaget\_2:

(Start: 36 @621 has 224 MA's), (Start: 42 @690 has 5 MA's), (44, 729), (47, 747), (50, 774), (55, 876), (56, 885), (62, 936), (87, 1173), (108, 1323), (125, 1374),

Gene: BobsGarage\_116 Start: 64844, Stop: 65533, Start Num: 29

Candidate Starts for BobsGarage\_116:

(Start: 29 @64844 has 56 MA's), (33, 64853), (Start: 38 @64910 has 2 MA's), (47, 64988), (49, 65000), (53, 65069), (60, 65165), (62, 65177), (66, 65204), (67, 65249), (74, 65330), (75, 65336), (77, 65351), (81, 65378), (84, 65402), (89, 65429), (91, 65450), (92, 65456), (96, 65480),

Gene: BogosyJay\_1 Start: 359, Stop: 1213, Start Num: 36

Candidate Starts for BogosyJay\_1:

(Start: 36 @359 has 224 MA's), (Start: 42 @428 has 5 MA's), (50, 512), (51, 539), (62, 674), (76, 842), (103, 1040), (114, 1091), (124, 1115), (134, 1145), (143, 1193), (144, 1205),

Gene: Boohoo\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Boohoo\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: BourbonZero\_115 Start: 64501, Stop: 65208, Start Num: 30

Candidate Starts for BourbonZero\_115:

(20, 64477), (26, 64492), (Start: 30 @64501 has 17 MA's), (39, 64573), (48, 64654), (49, 64657), (50, 64672), (55, 64774), (57, 64786), (58, 64792), (62, 64834), (64, 64843), (65, 64852), (67, 64906), (74, 64987), (77, 65008), (85, 65062), (87, 65071), (96, 65140), (97, 65167), (98, 65179),

Gene: Bowtie\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Bowtie\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Bradman\_1 Start: 472, Stop: 1092, Start Num: 42

Candidate Starts for Bradman\_1:

(Start: 36 @403 has 224 MA's), (Start: 42 @472 has 5 MA's), (47, 529), (50, 556), (56, 667), (61, 712), (62, 718), (68, 796), (76, 886), (90, 973), (94, 1006),

Gene: BrainDrainer\_125 Start: 66108, Stop: 66797, Start Num: 29

Candidate Starts for BrainDrainer\_125:

(Start: 29 @66108 has 56 MA's), (Start: 38 @66174 has 2 MA's), (Start: 42 @66195 has 5 MA's), (44, 66234), (49, 66264), (52, 66321), (53, 66333), (55, 66381), (57, 66393), (58, 66399), (62, 66441), (66, 66468), (67, 66513), (74, 66594), (77, 66615), (81, 66642), (87, 66678), (90, 66696), (91, 66714),

Gene: Breezona\_117 Start: 65179, Stop: 65868, Start Num: 29

Candidate Starts for Breezona\_117:

(Start: 29 @65179 has 56 MA's), (33, 65188), (Start: 38 @65245 has 2 MA's), (47, 65323), (49, 65335), (53, 65404), (60, 65500), (62, 65512), (66, 65539), (67, 65584), (74, 65665), (75, 65671), (77, 65686), (81, 65713), (84, 65737), (89, 65764), (91, 65785), (92, 65791), (96, 65815),

Gene: Bromden\_125 Start: 67100, Stop: 67789, Start Num: 29

Candidate Starts for Bromden\_125:

(Start: 29 @67100 has 56 MA's), (Start: 38 @67166 has 2 MA's), (Start: 42 @67187 has 5 MA's), (44, 67226), (47, 67244), (49, 67256), (52, 67313), (53, 67325), (55, 67373), (57, 67385), (60, 67421), (62, 67433), (66, 67460), (67, 67505), (74, 67586), (77, 67607), (81, 67634), (84, 67658), (85, 67661), (87, 67670), (90, 67688), (91, 67706),

Gene: Bud\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Bud\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850), (99, 1027),

Gene: Buggy\_2 Start: 653, Stop: 1414, Start Num: 36

Candidate Starts for Buggy\_2:

(Start: 36 @653 has 224 MA's), (Start: 42 @722 has 5 MA's), (44, 761), (50, 806), (55, 908), (56, 917), (62, 968), (76, 1136), (84, 1193), (88, 1217), (102, 1325), (123, 1400),

Gene: C3\_01 Start: 460, Stop: 1203, Start Num: 42

Candidate Starts for C3\_01:

(Start: 36 @391 has 224 MA's), (Start: 42 @460 has 5 MA's), (50, 544), (56, 655), (62, 706), (68, 784), (76, 874), (94, 994), (108, 1093), (125, 1153), (127, 1159), (131, 1171),

Gene: CRB1\_1 Start: 577, Stop: 1338, Start Num: 36

Candidate Starts for CRB1\_1:

(23, 544), (Start: 36 @577 has 224 MA's), (Start: 42 @646 has 5 MA's), (44, 685), (50, 730), (59, 862), (62, 892), (76, 1060), (102, 1249), (123, 1324),

Gene: Calm\_116 Start: 63187, Stop: 63894, Start Num: 29

Candidate Starts for Calm\_116:

(Start: 29 @63187 has 56 MA's), (37, 63241), (Start: 38 @63253 has 2 MA's), (39, 63259), (Start: 42 @63274 has 5 MA's), (44, 63313), (47, 63331), (50, 63358), (53, 63412), (55, 63460), (57, 63472), (59, 63490), (62, 63520), (65, 63538), (67, 63592), (71, 63613), (76, 63688), (77, 63694), (83, 63736), (85, 63748), (88, 63769), (92, 63799), (94, 63811), (96, 63826), (97, 63853),

Gene: Candra\_1 Start: 520, Stop: 1209, Start Num: 42

Candidate Starts for Candra\_1:

(Start: 36 @451 has 224 MA's), (Start: 42 @520 has 5 MA's), (50, 604), (52, 646), (56, 715), (59, 736), (62, 766), (76, 934), (88, 1015),

Gene: Caraxes\_1 Start: 381, Stop: 1229, Start Num: 31

Candidate Starts for Caraxes\_1:

(Start: 31 @381 has 13 MA's), (39, 444), (40, 447), (Start: 42 @459 has 5 MA's), (47, 516), (50, 543), (51, 570), (52, 585), (62, 705), (68, 783), (76, 873), (88, 954),

Gene: Catalina\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Catalina\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (122, 1132), (123, 1135), (129, 1153),

Gene: Celestiallunch\_2 Start: 353, Stop: 1210, Start Num: 36

Candidate Starts for Celestiallunch\_2:

(Start: 36 @353 has 224 MA's), (Start: 42 @422 has 5 MA's), (50, 506), (62, 668), (76, 836), (84, 893), (103, 1034), (112, 1076), (124, 1112), (134, 1142), (143, 1190), (144, 1202), (145, 1205),

Gene: Centaur\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for Centaur\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: Changeling\_1 Start: 391, Stop: 1155, Start Num: 36

Candidate Starts for Changeling\_1:

(Start: 36 @391 has 224 MA's), (Start: 42 @460 has 5 MA's), (44, 499), (50, 544), (55, 646), (56, 655), (59, 676), (62, 706), (76, 874), (108, 1093), (125, 1141),

Gene: Chargerpower\_2 Start: 504, Stop: 1277, Start Num: 36

Candidate Starts for Chargerpower\_2:

(Start: 36 @504 has 224 MA's), (Start: 42 @573 has 5 MA's), (50, 657), (53, 711), (55, 759), (56, 768), (60, 807), (62, 819), (89, 1071), (96, 1122), (105, 1197), (109, 1215), (125, 1263),

Gene: Charm\_1 Start: 356, Stop: 1210, Start Num: 36

Candidate Starts for Charm\_1:

(Start: 36 @356 has 224 MA's), (Start: 42 @425 has 5 MA's), (50, 509), (62, 671), (66, 698), (68, 749), (76, 839), (88, 920), (103, 1037), (122, 1106), (124, 1112), (134, 1142), (138, 1169), (143, 1190), (144, 1202),

Gene: Chartreuse\_1 Start: 419, Stop: 1177, Start Num: 36

Candidate Starts for Chartreuse\_1:

(Start: 36 @419 has 224 MA's), (Start: 42 @488 has 5 MA's), (50, 572), (52, 614), (56, 683), (59, 704), (62, 734), (76, 902), (88, 983),

Gene: Chaser\_123 Start: 65827, Stop: 66516, Start Num: 29

Candidate Starts for Chaser\_123:

(Start: 29 @65827 has 56 MA's), (Start: 38 @65893 has 2 MA's), (Start: 42 @65914 has 5 MA's), (44, 65953), (49, 65983), (52, 66040), (53, 66052), (55, 66100), (57, 66112), (58, 66118), (62, 66160), (66, 66187), (67, 66232), (74, 66313), (77, 66334), (81, 66361), (87, 66397), (90, 66415), (91, 66433),

Gene: Che12\_1 Start: 381, Stop: 1229, Start Num: 31

Candidate Starts for Che12\_1:

(Start: 31 @381 has 13 MA's), (39, 444), (40, 447), (Start: 42 @459 has 5 MA's), (47, 516), (50, 543), (51, 570), (52, 585), (62, 705), (66, 732), (68, 783), (76, 873), (88, 954), (124, 1146), (135, 1185), (136, 1188),

Gene: ChipMunk\_2 Start: 660, Stop: 1427, Start Num: 36

Candidate Starts for ChipMunk\_2:

(18, 594), (Start: 36 @660 has 224 MA's), (Start: 42 @729 has 5 MA's), (44, 768), (50, 813), (56, 924), (59, 945), (62, 975), (68, 1053), (76, 1143), (89, 1227), (103, 1341), (125, 1413),

Gene: ChutneyChips\_127 Start: 66101, Stop: 66790, Start Num: 29

Candidate Starts for ChutneyChips\_127:

(Start: 29 @66101 has 56 MA's), (Start: 38 @66167 has 2 MA's), (Start: 42 @66188 has 5 MA's), (44, 66227), (49, 66257), (52, 66314), (53, 66326), (55, 66374), (57, 66386), (58, 66392), (62, 66434), (66, 66461), (67, 66506), (74, 66587), (77, 66608), (81, 66635), (90, 66689), (91, 66707),

Gene: CicholasNage\_107 Start: 62572, Stop: 63282, Start Num: 29

Candidate Starts for CicholasNage\_107:

(Start: 29 @62572 has 56 MA's), (37, 62626), (Start: 38 @62638 has 2 MA's), (39, 62644), (Start: 42 @62659 has 5 MA's), (47, 62719), (50, 62746), (53, 62800), (55, 62848), (57, 62860), (59, 62878), (62, 62908), (65, 62926), (67, 62980), (76, 63076), (77, 63082), (83, 63124), (85, 63136), (88, 63157), (92, 63187), (94, 63199), (96, 63214), (97, 63241),

Gene: Claus\_116 Start: 64869, Stop: 65573, Start Num: 29

Candidate Starts for Claus\_116:

(Start: 29 @64869 has 56 MA's), (33, 64878), (Start: 38 @64935 has 2 MA's), (39, 64941), (Start: 42 @64956 has 5 MA's), (47, 65013), (58, 65160), (62, 65202), (65, 65220), (68, 65280), (69, 65283), (74, 65355), (75, 65361), (76, 65370), (84, 65424), (89, 65451), (90, 65454), (94, 65490), (96, 65505), (100, 65556),

Gene: Clautastrophe\_112 Start: 64328, Stop: 65035, Start Num: 30

Candidate Starts for Clautastrophe\_112:

(27, 64319), (Start: 30 @64328 has 17 MA's), (39, 64400), (48, 64481), (49, 64484), (50, 64499), (55, 64601), (57, 64613), (58, 64619), (62, 64661), (64, 64670), (67, 64733), (68, 64739), (74, 64814), (77, 64835), (87, 64898), (96, 64967), (97, 64994), (98, 65006),

Gene: CloudWang3\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for CloudWang3\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: CogOmlette\_1 Start: 356, Stop: 1204, Start Num: 36

Candidate Starts for CogOmlette\_1:

(Start: 36 @356 has 224 MA's), (50, 509), (52, 551), (62, 671), (76, 839), (103, 1037), (110, 1067), (124, 1112), (134, 1136), (137, 1160),

Gene: Colin\_1 Start: 526, Stop: 1293, Start Num: 36

Candidate Starts for Colin\_1:

(Start: 36 @526 has 224 MA's), (Start: 42 @595 has 5 MA's), (50, 679), (56, 790), (62, 841), (76, 1009), (88, 1090), (90, 1096), (111, 1240), (119, 1270), (123, 1279),

Gene: Conquerage\_1 Start: 379, Stop: 1158, Start Num: 36

Candidate Starts for Conquerage\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (90, 949), (94, 982), (96, 997), (119, 1123), (122, 1129), (123, 1132), (129, 1150),

Gene: Cookiedough\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Cookiedough\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Crossroads\_120 Start: 65043, Stop: 65732, Start Num: 29

Candidate Starts for Crossroads\_120:

(Start: 29 @65043 has 56 MA's), (33, 65052), (Start: 38 @65109 has 2 MA's), (47, 65187), (53, 65268), (60, 65364), (62, 65376), (66, 65403), (67, 65448), (74, 65529), (75, 65535), (77, 65550), (81, 65577), (84, 65601), (85, 65604), (89, 65628), (91, 65649), (92, 65655), (96, 65679),

Gene: Crucio\_2 Start: 665, Stop: 1432, Start Num: 36

Candidate Starts for Crucio\_2:

(Start: 36 @665 has 224 MA's), (Start: 42 @734 has 5 MA's), (44, 773), (50, 818), (62, 980), (68, 1058), (89, 1232), (103, 1346), (125, 1418),

Gene: D29\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for D29\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: D32\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for D32\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: DBQu4n\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for DBQu4n\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: DHan\_119 Start: 65084, Stop: 65776, Start Num: 29

Candidate Starts for DHan\_119:

(Start: 29 @65084 has 56 MA's), (33, 65093), (Start: 38 @65150 has 2 MA's), (39, 65156), (Start: 42 @65171 has 5 MA's), (47, 65228), (58, 65375), (62, 65417), (65, 65435), (68, 65495), (69, 65498), (74, 65570), (75, 65576), (76, 65585), (84, 65639), (89, 65666), (90, 65669), (94, 65705), (96, 65720),

Gene: DaVinci\_1 Start: 419, Stop: 1177, Start Num: 36

Candidate Starts for DaVinci\_1:

(Start: 36 @419 has 224 MA's), (Start: 42 @488 has 5 MA's), (50, 572), (52, 614), (56, 683), (59, 704), (62, 734), (76, 902), (88, 983),

Gene: Dalmatian\_2 Start: 664, Stop: 1497, Start Num: 36

Candidate Starts for Dalmatian\_2:

(Start: 36 @664 has 224 MA's), (Start: 42 @733 has 5 MA's), (50, 817), (56, 928), (60, 967), (62, 979), (83, 1195), (90, 1234), (125, 1426), (140, 1489),

Gene: DanBing\_119 Start: 65368, Stop: 66060, Start Num: 29

Candidate Starts for DanBing\_119:

(Start: 29 @65368 has 56 MA's), (33, 65377), (Start: 38 @65434 has 2 MA's), (39, 65440), (Start: 42 @65455 has 5 MA's), (46, 65506), (47, 65512), (50, 65539), (58, 65659), (62, 65701), (65, 65719), (68, 65779), (69, 65782), (74, 65854), (75, 65860), (76, 65869), (84, 65923), (89, 65950), (90, 65953), (94, 65989), (96, 66004),

Gene: Darrell\_1 Start: 357, Stop: 1211, Start Num: 36

Candidate Starts for Darrell\_1:

(Start: 36 @357 has 224 MA's), (50, 510), (56, 621), (62, 672), (66, 699), (68, 750), (76, 840), (103, 1038), (124, 1113), (134, 1143), (137, 1167), (144, 1203), (145, 1206),

Gene: DARTHPhader\_1 Start: 437, Stop: 1234, Start Num: 38

Candidate Starts for DARTHPhader\_1:

(Start: 31 @380 has 13 MA's), (Start: 38 @437 has 2 MA's), (50, 542), (62, 704), (76, 872), (83, 920), (99, 1049), (104, 1079), (126, 1154), (130, 1166), (139, 1214), (142, 1226),

Gene: DeerParkTS\_1 Start: 369, Stop: 1127, Start Num: 36

Candidate Starts for DeerParkTS\_1:

(Start: 36 @369 has 224 MA's), (Start: 42 @438 has 5 MA's), (44, 477), (50, 522), (59, 654), (62, 684), (76, 852), (123, 1113),

Gene: DekHockey33\_1 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for DekHockey33\_1:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: Deloris\_1 Start: 432, Stop: 1193, Start Num: 36

Candidate Starts for Deloris\_1:

(23, 399), (Start: 36 @432 has 224 MA's), (Start: 42 @501 has 5 MA's), (44, 540), (50, 585), (55, 687), (56, 696), (62, 747), (76, 915), (102, 1104), (123, 1179),

Gene: DelvinSonDorr\_1 Start: 615, Stop: 1178, Start Num: 52

Candidate Starts for DelvinSonDorr\_1:

(Start: 36 @420 has 224 MA's), (Start: 42 @489 has 5 MA's), (50, 573), (52, 615), (56, 684), (59, 705), (62, 735), (76, 903), (88, 984),

Gene: Dignity\_2 Start: 654, Stop: 1415, Start Num: 36

Candidate Starts for Dignity\_2:

(Start: 36 @654 has 224 MA's), (Start: 42 @723 has 5 MA's), (44, 762), (50, 807), (55, 909), (56, 918), (62, 969), (76, 1137), (84, 1194), (88, 1218), (102, 1326), (123, 1401),

Gene: DirkDirk\_108 Start: 61597, Stop: 62304, Start Num: 29

Candidate Starts for DirkDirk\_108:

(Start: 29 @61597 has 56 MA's), (37, 61651), (Start: 38 @61663 has 2 MA's), (39, 61669), (Start: 42 @61684 has 5 MA's), (44, 61723), (47, 61741), (50, 61768), (57, 61882), (58, 61888), (59, 61900), (62, 61930), (65, 61948), (67, 62002), (76, 62098), (77, 62104), (83, 62146), (85, 62158), (88, 62179), (90, 62185), (92, 62209), (94, 62221), (96, 62236), (97, 62263),

Gene: Dorothea\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Dorothea\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Douge\_127 Start: 66600, Stop: 67289, Start Num: 29

Candidate Starts for Douge\_127:

(28, 66594), (Start: 29 @66600 has 56 MA's), (Start: 38 @66666 has 2 MA's), (Start: 42 @66687 has 5 MA's), (45, 66732), (49, 66756), (52, 66813), (53, 66825), (57, 66885), (58, 66891), (62, 66933), (66, 66960), (67, 67005), (74, 67086), (77, 67107), (81, 67134), (87, 67170), (90, 67188), (91, 67206),

Gene: Douzhi\_124 Start: 66141, Stop: 66830, Start Num: 29

Candidate Starts for Douzhi\_124:

(Start: 29 @66141 has 56 MA's), (Start: 38 @66207 has 2 MA's), (Start: 42 @66228 has 5 MA's), (44, 66267), (49, 66297), (52, 66354), (53, 66366), (57, 66426), (58, 66432), (62, 66474), (66, 66501), (67, 66546), (74, 66627), (77, 66648), (81, 66675), (87, 66711), (90, 66729), (91, 66747), (92, 66753), (95, 66768),

Gene: DrSeegs\_115 Start: 65179, Stop: 65868, Start Num: 29

Candidate Starts for DrSeegs\_115:

(Start: 29 @65179 has 56 MA's), (33, 65188), (Start: 38 @65245 has 2 MA's), (47, 65323), (49, 65335), (53, 65404), (60, 65500), (62, 65512), (66, 65539), (67, 65584), (74, 65665), (75, 65671), (77, 65686), (81, 65713), (84, 65737), (89, 65764), (91, 65785), (92, 65791), (96, 65815),

Gene: Drake55\_2 Start: 642, Stop: 1379, Start Num: 36

Candidate Starts for Drake55\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (47, 768), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (68, 1035), (76, 1125), (94, 1245),

Gene: DreamTeam1\_1 Start: 356, Stop: 1210, Start Num: 36

Candidate Starts for DreamTeam1\_1:

(Start: 36 @356 has 224 MA's), (Start: 42 @425 has 5 MA's), (50, 509), (62, 671), (66, 698), (68, 749), (76, 839), (103, 1037), (122, 1106), (124, 1112), (134, 1142), (138, 1169), (143, 1190), (144, 1202),

Gene: DudeLittle\_2 Start: 664, Stop: 1497, Start Num: 36

Candidate Starts for DudeLittle\_2:

(Start: 36 @664 has 224 MA's), (Start: 42 @733 has 5 MA's), (50, 817), (56, 928), (60, 967), (62, 979), (83, 1195), (90, 1234), (125, 1426), (140, 1489),

Gene: DuncansLeg\_115 Start: 64499, Stop: 65206, Start Num: 30

Candidate Starts for DuncansLeg\_115:

(Start: 12 @64424 has 2 MA's), (20, 64475), (26, 64490), (Start: 30 @64499 has 17 MA's), (39, 64571), (48, 64652), (49, 64655), (50, 64670), (55, 64772), (57, 64784), (58, 64790), (62, 64832), (64, 64841), (65, 64850), (67, 64904), (74, 64985), (77, 65006), (85, 65060), (87, 65069), (96, 65138), (97, 65165), (98, 65177),

Gene: Duplo\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for Duplo\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: DyoEdafos\_128 Start: 65948, Stop: 66637, Start Num: 29

Candidate Starts for DyoEdafos\_128:

(Start: 29 @65948 has 56 MA's), (Start: 38 @66014 has 2 MA's), (Start: 42 @66035 has 5 MA's), (49, 66104), (52, 66161), (53, 66173), (55, 66221), (57, 66233), (58, 66239), (62, 66281), (66, 66308), (67, 66353), (74, 66434), (77, 66455), (81, 66482), (90, 66536), (91, 66554),

Gene: EZMoney23\_1 Start: 400, Stop: 1080, Start Num: 36

Candidate Starts for EZMoney23\_1:

(Start: 36 @400 has 224 MA's), (Start: 42 @469 has 5 MA's), (47, 526), (50, 553), (55, 655), (62, 715), (76, 883), (80, 913), (84, 940),

Gene: EagleEye\_1 Start: 400, Stop: 1245, Start Num: 36

Candidate Starts for EagleEye\_1:

(22, 373), (Start: 36 @400 has 224 MA's), (Start: 42 @469 has 5 MA's), (47, 526), (50, 553), (56, 664), (59, 685), (62, 715), (76, 883), (128, 1165), (134, 1177), (143, 1225), (145, 1240),

Gene: Ebony\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Ebony\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (62, 682), (66, 709), (68, 760), (76, 850), (99, 1027),

Gene: Echild\_2 Start: 662, Stop: 1495, Start Num: 36

Candidate Starts for Echild\_2:

(Start: 36 @662 has 224 MA's), (Start: 42 @731 has 5 MA's), (50, 815), (56, 926), (60, 965), (62, 977), (83, 1193), (90, 1232), (114, 1400), (116, 1406), (125, 1427), (130, 1442), (140, 1487),

Gene: Eidsmoe\_1 Start: 379, Stop: 1158, Start Num: 36

Candidate Starts for Eidsmoe\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (90, 949), (94, 982), (96, 997), (119, 1123), (122, 1129), (123, 1132), (129, 1150),

Gene: Elephantoon\_1 Start: 358, Stop: 1206, Start Num: 36

Candidate Starts for Elephantoon\_1:

(Start: 36 @358 has 224 MA's), (50, 511), (56, 622), (62, 673), (68, 751), (76, 841), (103, 1039), (114, 1090), (124, 1114), (133, 1135), (134, 1138), (143, 1186), (144, 1198),

Gene: Elle\_1 Start: 359, Stop: 1120, Start Num: 36

Candidate Starts for Elle\_1:

(Start: 36 @359 has 224 MA's), (43, 431), (50, 512), (54, 590), (62, 674), (68, 752), (96, 977), (115, 1103), (122, 1115),

Gene: Ellson\_113 Start: 64783, Stop: 65490, Start Num: 30

Candidate Starts for Ellson\_113:

(20, 64759), (26, 64774), (Start: 30 @64783 has 17 MA's), (39, 64855), (48, 64936), (49, 64939), (50, 64954), (55, 65056), (57, 65068), (58, 65074), (62, 65116), (64, 65125), (65, 65134), (67, 65188), (74, 65269), (77, 65290), (85, 65344), (87, 65353), (96, 65422), (97, 65449), (98, 65461),

Gene: EmyBug\_1 Start: 379, Stop: 1158, Start Num: 36

Candidate Starts for EmyBug\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (90, 949), (94, 982), (96, 997), (119, 1123), (122, 1129), (123, 1132), (129, 1150),

Gene: Enceladus\_108 Start: 61896, Stop: 62603, Start Num: 29

Candidate Starts for Enceladus\_108:

(Start: 29 @61896 has 56 MA's), (37, 61950), (Start: 38 @61962 has 2 MA's), (39, 61968), (Start: 42 @61983 has 5 MA's), (44, 62022), (47, 62040), (50, 62067), (57, 62181), (58, 62187), (59, 62199), (62, 62229), (65, 62247), (67, 62301), (76, 62397), (77, 62403), (83, 62445), (85, 62457), (88, 62478), (90, 62484), (92, 62508), (94, 62520), (96, 62535), (97, 62562),

Gene: Epsocamisio\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Epsocamisio\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Equemioh13\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for Equemioh13\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: EricB\_1 Start: 419, Stop: 1177, Start Num: 36

Candidate Starts for EricB\_1:

(Start: 36 @419 has 224 MA's), (Start: 42 @488 has 5 MA's), (50, 572), (52, 614), (56, 683), (59, 704), (62, 734), (76, 902), (88, 983),

Gene: Et2Brutus\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Et2Brutus\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: EvilGenius\_2 Start: 660, Stop: 1427, Start Num: 36

Candidate Starts for EvilGenius\_2:

(18, 594), (Start: 36 @660 has 224 MA's), (Start: 42 @729 has 5 MA's), (44, 768), (50, 813), (56, 924), (59, 945), (62, 975), (68, 1053), (76, 1143), (89, 1227), (103, 1341), (125, 1413),

Gene: ExplosioNervosa\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for ExplosioNervosa\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (119, 1126), (122, 1132), (123, 1135), (129, 1153),

Gene: Faith1\_115 Start: 64487, Stop: 65176, Start Num: 29

Candidate Starts for Faith1\_115:

(Start: 29 @64487 has 56 MA's), (33, 64496), (Start: 38 @64553 has 2 MA's), (47, 64631), (49, 64643), (53, 64712), (60, 64808), (62, 64820), (66, 64847), (67, 64892), (74, 64973), (75, 64979), (77, 64994), (81, 65021), (84, 65045), (89, 65072), (91, 65093), (92, 65099), (96, 65123),

Gene: Fameo\_2 Start: 667, Stop: 1497, Start Num: 36

Candidate Starts for Fameo\_2:

(Start: 36 @667 has 224 MA's), (Start: 42 @736 has 5 MA's), (50, 820), (56, 931), (60, 970), (62, 982), (83, 1198), (125, 1426), (130, 1441), (140, 1489),

Gene: FarmResident\_127 Start: 65732, Stop: 66421, Start Num: 29

Candidate Starts for FarmResident\_127:

(Start: 29 @65732 has 56 MA's), (Start: 38 @65798 has 2 MA's), (Start: 42 @65819 has 5 MA's), (44, 65858), (47, 65876), (49, 65888), (53, 65957), (55, 66005), (57, 66017), (58, 66023), (62, 66065), (66, 66092), (67, 66137), (74, 66218), (77, 66239), (81, 66266), (90, 66320), (91, 66338), (95, 66359),

Gene: Fayely\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Fayely\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (119, 1126), (122, 1132), (123, 1135), (129, 1153),

Gene: Fibonacci\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Fibonacci\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Finemlucis\_115 Start: 65563, Stop: 66252, Start Num: 29

Candidate Starts for Finemlucis\_115:

(Start: 29 @65563 has 56 MA's), (33, 65572), (Start: 38 @65629 has 2 MA's), (40, 65638), (41, 65644), (47, 65707), (60, 65884), (62, 65896), (66, 65923), (67, 65968), (74, 66049), (75, 66055), (77, 66070), (84, 66121), (85, 66124), (89, 66148), (91, 66169), (92, 66175), (96, 66199),

Gene: Finnry\_113 Start: 64677, Stop: 65384, Start Num: 30

Candidate Starts for Finnry\_113:

(Start: 12 @64602 has 2 MA's), (20, 64653), (26, 64668), (Start: 30 @64677 has 17 MA's), (Start: 38 @64743 has 2 MA's), (39, 64749), (48, 64830), (49, 64833), (50, 64848), (55, 64950), (57, 64962), (58, 64968), (62, 65010), (64, 65019), (67, 65082), (74, 65163), (77, 65184), (87, 65247), (94, 65301), (96, 65316), (97, 65343), (98, 65355),

Gene: FiringLine\_2 Start: 666, Stop: 1433, Start Num: 36

Candidate Starts for FiringLine\_2:

(Start: 36 @666 has 224 MA's), (Start: 42 @735 has 5 MA's), (44, 774), (50, 819), (62, 981), (68, 1059), (89, 1233), (103, 1347), (125, 1419),

Gene: First\_001 Start: 569, Stop: 1336, Start Num: 36

Candidate Starts for First\_001:

(23, 536), (Start: 36 @569 has 224 MA's), (Start: 42 @638 has 5 MA's), (44, 677), (50, 722), (55, 824), (56, 833), (59, 854), (62, 884), (105, 1262), (108, 1271), (125, 1322),

Gene: Flare16\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for Flare16\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: Flaverint\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Flaverint\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: ForesterFrank\_1 Start: 390, Stop: 1070, Start Num: 36

Candidate Starts for ForesterFrank\_1:

(Start: 36 @390 has 224 MA's), (Start: 42 @459 has 5 MA's), (47, 516), (50, 543), (55, 645), (59, 675), (62, 705), (76, 873), (80, 903), (84, 930),

Gene: Gabriela\_117 Start: 63833, Stop: 64522, Start Num: 29

Candidate Starts for Gabriela\_117:

(Start: 29 @63833 has 56 MA's), (33, 63842), (Start: 38 @63899 has 2 MA's), (47, 63977), (49, 63989), (53, 64058), (60, 64154), (62, 64166), (66, 64193), (67, 64238), (74, 64319), (75, 64325), (77, 64340), (81, 64367), (84, 64391), (89, 64418), (91, 64439), (92, 64445), (96, 64469),

Gene: Gail\_1 Start: 369, Stop: 1055, Start Num: 36

Candidate Starts for Gail\_1:

(Start: 31 @360 has 13 MA's), (Start: 36 @369 has 224 MA's), (39, 423), (Start: 42 @438 has 5 MA's), (50, 522), (62, 684), (81, 885), (94, 972), (96, 987),

Gene: Garak\_1 Start: 487, Stop: 1176, Start Num: 42

Candidate Starts for Garak\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Gardann\_116 Start: 64511, Stop: 65200, Start Num: 29

Candidate Starts for Gardann\_116:

(Start: 29 @64511 has 56 MA's), (33, 64520), (Start: 38 @64577 has 2 MA's), (47, 64655), (53, 64736), (60, 64832), (62, 64844), (66, 64871), (67, 64916), (74, 64997), (75, 65003), (77, 65018), (81, 65045), (84, 65069), (89, 65096), (91, 65117), (92, 65123), (96, 65147),

Gene: GaugeLDP\_1 Start: 379, Stop: 1146, Start Num: 36

Candidate Starts for GaugeLDP\_1:

(Start: 36 @379 has 224 MA's), (Start: 42 @448 has 5 MA's), (50, 532), (56, 643), (62, 694), (66, 721), (76, 862), (88, 943), (121, 1123),

Gene: Georgie2\_2 Start: 665, Stop: 1432, Start Num: 36

Candidate Starts for Georgie2\_2:

(Start: 36 @665 has 224 MA's), (Start: 42 @734 has 5 MA's), (44, 773), (50, 818), (62, 980), (68, 1058), (89, 1232), (103, 1346), (125, 1418),

Gene: Gilberta\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Gilberta\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (76, 850),

Gene: Gladiator\_1 Start: 411, Stop: 1172, Start Num: 36

Candidate Starts for Gladiator\_1:

(Start: 36 @411 has 224 MA's), (Start: 42 @480 has 5 MA's), (50, 564), (56, 675), (59, 696), (62, 726), (76, 894), (88, 975), (119, 1149), (126, 1164),

Gene: Gratitude\_2 Start: 750, Stop: 1376, Start Num: 44

Candidate Starts for Gratitude\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: GreedyLawyer\_1 Start: 487, Stop: 1176, Start Num: 42

Candidate Starts for GreedyLawyer\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Gruunaga\_1 Start: 411, Stop: 1172, Start Num: 36

Candidate Starts for Gruunaga\_1:

(Start: 36 @411 has 224 MA's), (Start: 42 @480 has 5 MA's), (50, 564), (56, 675), (59, 696), (62, 726), (76, 894), (88, 975), (119, 1149), (126, 1164),

Gene: GuuelaD\_113 Start: 64633, Stop: 65322, Start Num: 29

Candidate Starts for GuuelaD\_113:

(Start: 29 @64633 has 56 MA's), (33, 64642), (Start: 38 @64699 has 2 MA's), (47, 64777), (53, 64858), (60, 64954), (62, 64966), (66, 64993), (67, 65038), (74, 65119), (75, 65125), (77, 65140), (81, 65167), (84, 65191), (85, 65194), (89, 65218), (91, 65239), (92, 65245), (96, 65269),

Gene: Halena\_111 Start: 62215, Stop: 62925, Start Num: 29

Candidate Starts for Halena\_111:

(Start: 29 @62215 has 56 MA's), (37, 62269), (Start: 38 @62281 has 2 MA's), (39, 62287), (Start: 42 @62302 has 5 MA's), (47, 62362), (50, 62389), (53, 62443), (55, 62491), (57, 62503), (59, 62521), (62, 62551), (65, 62569), (67, 62623), (76, 62719), (77, 62725), (83, 62767), (85, 62779), (88, 62800), (92, 62830), (94, 62842), (96, 62857), (97, 62884),

Gene: Hammer\_1 Start: 410, Stop: 1171, Start Num: 36

Candidate Starts for Hammer\_1:

(Start: 36 @410 has 224 MA's), (Start: 42 @479 has 5 MA's), (50, 563), (56, 674), (59, 695), (62, 725), (76, 893), (88, 974), (119, 1148), (126, 1163),

Gene: HarryHoudini\_2 Start: 642, Stop: 1379, Start Num: 36

Candidate Starts for HarryHoudini\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (47, 768), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (68, 1035), (88, 1206),

Gene: Heffalump\_2 Start: 667, Stop: 1497, Start Num: 36

Candidate Starts for Heffalump\_2:

(Start: 36 @667 has 224 MA's), (Start: 42 @736 has 5 MA's), (50, 820), (56, 931), (60, 970), (62, 982), (83, 1198), (125, 1426), (130, 1441), (140, 1489),

Gene: Helmet\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Helmet\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Hexamo\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Hexamo\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: HippoHollow\_1 Start: 359, Stop: 1195, Start Num: 36

Candidate Starts for HippoHollow\_1:

(Start: 36 @359 has 224 MA's), (Start: 42 @428 has 5 MA's), (44, 467), (50, 512), (55, 614), (56, 623), (59, 644), (62, 674), (81, 875), (106, 1055), (124, 1118), (125, 1121), (133, 1148), (140, 1187),

Gene: Hoot\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Hoot\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: HortumSL17\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for HortumSL17\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (122, 1132), (123, 1135), (129, 1153),

Gene: Hutc2\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Hutc2\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Indra\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Indra\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Insomnia\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Insomnia\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: IronMan\_1 Start: 389, Stop: 1159, Start Num: 36

Candidate Starts for IronMan\_1:

(Start: 36 @389 has 224 MA's), (Start: 42 @458 has 5 MA's), (47, 515), (50, 542), (55, 644), (59, 674), (62, 704), (76, 872), (88, 953), (121, 1136),

Gene: Isiphiwo\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Isiphiwo\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Itos\_117 Start: 63393, Stop: 64082, Start Num: 29

Candidate Starts for Itos\_117:

(Start: 29 @63393 has 56 MA's), (33, 63402), (Start: 38 @63459 has 2 MA's), (47, 63537), (49, 63549), (53, 63618), (60, 63714), (62, 63726), (66, 63753), (67, 63798), (74, 63879), (75, 63885), (77, 63900), (81, 63927), (84, 63951), (89, 63978), (91, 63999), (92, 64005), (96, 64029),

Gene: Iwokeuplikedis\_2 Start: 649, Stop: 1341, Start Num: 32

Candidate Starts for Iwokeuplikedis\_2:

(Start: 32 @649 has 1 MA's), (Start: 42 @727 has 5 MA's), (44, 766), (47, 784), (49, 796), (51, 838), (56, 922), (62, 973), (76, 1141), (81, 1174),

Gene: JSwag\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for JSwag\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Jaan\_1 Start: 388, Stop: 1155, Start Num: 36

Candidate Starts for Jaan\_1:

(Start: 36 @388 has 224 MA's), (Start: 42 @457 has 5 MA's), (47, 514), (50, 541), (55, 643), (56, 652), (59, 673), (62, 703), (76, 871), (88, 952), (122, 1138),

Gene: Jabith\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Jabith\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Jeeves\_1 Start: 400, Stop: 1086, Start Num: 36

Candidate Starts for Jeeves\_1:

(Start: 31 @391 has 13 MA's), (Start: 36 @400 has 224 MA's), (39, 454), (Start: 42 @469 has 5 MA's), (50, 553), (62, 715), (94, 1003), (96, 1018),

Gene: Jeffabunny\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Jeffabunny\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Jerm\_2 Start: 652, Stop: 1413, Start Num: 36

Candidate Starts for Jerm\_2:

(Start: 36 @652 has 224 MA's), (Start: 42 @721 has 5 MA's), (44, 760), (50, 805), (55, 907), (56, 916), (62, 967), (76, 1135), (84, 1192), (88, 1216), (102, 1324), (123, 1399),

Gene: JewelBug\_1 Start: 419, Stop: 1177, Start Num: 36

Candidate Starts for JewelBug\_1:

(Start: 36 @419 has 224 MA's), (Start: 42 @488 has 5 MA's), (50, 572), (52, 614), (56, 683), (59, 704), (62, 734), (76, 902), (88, 983),

Gene: Jobypre\_113 Start: 64326, Stop: 65033, Start Num: 30

Candidate Starts for Jobypre\_113:

(Start: 12 @64251 has 2 MA's), (20, 64302), (26, 64317), (Start: 30 @64326 has 17 MA's), (39, 64398), (48, 64479), (49, 64482), (50, 64497), (55, 64599), (57, 64611), (58, 64617), (62, 64659), (64, 64668), (67, 64731), (68, 64737), (74, 64812), (77, 64833), (87, 64896), (96, 64965), (97, 64992), (98, 65004),

Gene: JoeDirt\_111 Start: 63170, Stop: 63877, Start Num: 29

Candidate Starts for JoeDirt\_111:

(Start: 29 @63170 has 56 MA's), (37, 63224), (Start: 38 @63236 has 2 MA's), (39, 63242), (Start: 42 @63257 has 5 MA's), (44, 63296), (47, 63314), (50, 63341), (53, 63395), (55, 63443), (57, 63455), (59, 63473), (62, 63503), (65, 63521), (67, 63575), (76, 63671), (77, 63677), (83, 63719), (85, 63731), (88, 63752), (92, 63782), (94, 63794), (96, 63809), (97, 63836),

Gene: Jordennis\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Jordennis\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Joselito\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Joselito\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: JoshKayV\_2 Start: 661, Stop: 1428, Start Num: 36

Candidate Starts for JoshKayV\_2:

(18, 595), (Start: 36 @661 has 224 MA's), (Start: 42 @730 has 5 MA's), (44, 769), (50, 814), (56, 925), (59, 946), (62, 976), (76, 1144), (87, 1213), (108, 1363), (125, 1414),

Gene: Journey13\_1 Start: 522, Stop: 1331, Start Num: 36

Candidate Starts for Journey13\_1:

(Start: 36 @522 has 224 MA's), (50, 675), (56, 786), (61, 831), (62, 837), (76, 1005), (101, 1191),

Gene: Jsquared\_1 Start: 402, Stop: 1091, Start Num: 36

Candidate Starts for Jsquared\_1:

(Start: 36 @402 has 224 MA's), (Start: 42 @471 has 5 MA's), (47, 528), (50, 555), (56, 666), (62, 717), (68, 795), (72, 858), (76, 885), (90, 972), (94, 1005),

Gene: Jubie\_113 Start: 64386, Stop: 65168, Start Num: 12

Candidate Starts for Jubie\_113:

(Start: 12 @64386 has 2 MA's), (20, 64437), (26, 64452), (Start: 30 @64461 has 17 MA's), (39, 64533), (48, 64614), (49, 64617), (50, 64632), (55, 64734), (57, 64746), (58, 64752), (62, 64794), (64, 64803), (67, 64866), (68, 64872), (74, 64947), (77, 64968), (87, 65031), (96, 65100), (97, 65127), (98, 65139),

Gene: Kahlid\_116 Start: 64796, Stop: 65485, Start Num: 29

Candidate Starts for Kahlid\_116:

(Start: 29 @64796 has 56 MA's), (33, 64805), (Start: 38 @64862 has 2 MA's), (47, 64940), (53, 65021), (60, 65117), (62, 65129), (66, 65156), (67, 65201), (74, 65282), (75, 65288), (77, 65303), (84, 65354), (85, 65357), (89, 65381), (91, 65402), (92, 65408), (96, 65432),

Gene: Kalpine\_2 Start: 643, Stop: 1410, Start Num: 36

Candidate Starts for Kalpine\_2:

(Start: 36 @643 has 224 MA's), (Start: 42 @712 has 5 MA's), (50, 796), (56, 907), (62, 958), (76, 1126), (88, 1207), (90, 1213), (111, 1357), (119, 1387), (123, 1396),

Gene: KatherineG\_1 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for KatherineG\_1:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: Kazan\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Kazan\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Kerberos\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for Kerberos\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: Keziacharles14\_1 Start: 356, Stop: 1039, Start Num: 36

Candidate Starts for Keziacharles14\_1:

(Start: 36 @356 has 224 MA's), (Start: 42 @425 has 5 MA's), (50, 509), (61, 665), (62, 671), (63, 677), (67, 743), (76, 839),

Gene: Kimba\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Kimba\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: KingCyrus\_2 Start: 661, Stop: 1428, Start Num: 36

Candidate Starts for KingCyrus\_2:

(18, 595), (Start: 36 @661 has 224 MA's), (Start: 42 @730 has 5 MA's), (44, 769), (50, 814), (56, 925), (59, 946), (62, 976), (68, 1054), (76, 1144), (89, 1228), (103, 1342), (125, 1414),

Gene: Kingsolomon\_111 Start: 64433, Stop: 65140, Start Num: 30

Candidate Starts for Kingsolomon\_111:

(Start: 12 @64358 has 2 MA's), (20, 64409), (26, 64424), (Start: 30 @64433 has 17 MA's), (Start: 38 @64499 has 2 MA's), (39, 64505), (48, 64586), (49, 64589), (50, 64604), (55, 64706), (57, 64718), (58, 64724), (62, 64766), (64, 64775), (67, 64838), (74, 64919), (77, 64940), (87, 65003), (94, 65057), (96, 65072), (97, 65099), (98, 65111),

Gene: Kinmap\_2 Start: 462, Stop: 1211, Start Num: 36

Candidate Starts for Kinmap\_2:

(Start: 36 @462 has 224 MA's), (Start: 38 @510 has 2 MA's), (39, 516), (56, 726), (62, 777), (68, 855), (78, 963), (85, 1005), (86, 1008), (99, 1122), (105, 1155), (107, 1161), (114, 1194), (115, 1197), (118, 1203),

Gene: Kipper29\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Kipper29\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: KirDoubleO7\_112 Start: 64399, Stop: 65181, Start Num: 12

Candidate Starts for KirDoubleO7\_112:

(Start: 12 @64399 has 2 MA's), (20, 64450), (26, 64465), (Start: 30 @64474 has 17 MA's), (39, 64546), (48, 64627), (49, 64630), (50, 64645), (55, 64747), (57, 64759), (58, 64765), (62, 64807), (64, 64816), (65, 64825), (67, 64879), (74, 64960), (77, 64981), (85, 65035), (87, 65044), (96, 65113), (97, 65140), (98, 65152),

Gene: Koduck\_1 Start: 402, Stop: 1091, Start Num: 36

Candidate Starts for Koduck\_1:

(Start: 36 @402 has 224 MA's), (Start: 42 @471 has 5 MA's), (47, 528), (50, 555), (62, 717), (68, 795), (72, 858), (76, 885), (90, 972), (94, 1005),

Gene: Koko\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Koko\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Kropertea\_121 Start: 65422, Stop: 66111, Start Num: 29

Candidate Starts for Kropertea\_121:

(Start: 29 @65422 has 56 MA's), (Start: 38 @65488 has 2 MA's), (Start: 42 @65509 has 5 MA's), (49, 65578), (52, 65635), (53, 65647), (55, 65695), (57, 65707), (58, 65713), (62, 65755), (66, 65782), (67, 65827), (74, 65908), (77, 65929), (81, 65956), (90, 66010), (91, 66028),

Gene: Krypton555\_117 Start: 64843, Stop: 65544, Start Num: 30

Candidate Starts for Krypton555\_117:

(20, 64819), (21, 64828), (26, 64834), (Start: 30 @64843 has 17 MA's), (Start: 38 @64909 has 2 MA's), (39, 64915), (48, 64996), (49, 64999), (50, 65014), (55, 65116), (57, 65128), (58, 65134), (62, 65176), (64, 65185), (65, 65194), (67, 65248), (74, 65329), (77, 65350), (79, 65371), (87, 65413), (97, 65509), (98, 65521),

Gene: L5\_1 Start: 411, Stop: 1100, Start Num: 36

Candidate Starts for L5\_1:

(Start: 36 @411 has 224 MA's), (Start: 42 @480 has 5 MA's), (47, 537), (50, 564), (62, 726), (68, 804), (72, 867), (76, 894), (90, 981), (94, 1014),

Gene: LadyBird\_1 Start: 570, Stop: 1331, Start Num: 36

Candidate Starts for LadyBird\_1:

(23, 537), (Start: 36 @570 has 224 MA's), (Start: 42 @639 has 5 MA's), (44, 678), (50, 723), (59, 855), (62, 885), (76, 1053), (102, 1242), (123, 1317),

Gene: Landor\_1 Start: 387, Stop: 1154, Start Num: 36

Candidate Starts for Landor\_1:

(Start: 16 @303 has 1 MA's), (Start: 36 @387 has 224 MA's), (Start: 42 @456 has 5 MA's), (47, 513), (50, 540), (55, 642), (56, 651), (59, 672), (62, 702), (76, 870), (88, 951), (122, 1137),

Gene: Larenn\_2 Start: 656, Stop: 1420, Start Num: 36

Candidate Starts for Larenn\_2:

(Start: 36 @656 has 224 MA's), (Start: 42 @725 has 5 MA's), (44, 764), (50, 809), (59, 941), (62, 971), (67, 1043), (90, 1226), (103, 1337), (124, 1403), (125, 1406),

Gene: LastResort\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for LastResort\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: LeBron\_110 Start: 61831, Stop: 62541, Start Num: 29

Candidate Starts for LeBron\_110:

(Start: 29 @61831 has 56 MA's), (37, 61885), (Start: 38 @61897 has 2 MA's), (39, 61903), (Start: 42 @61918 has 5 MA's), (47, 61978), (50, 62005), (53, 62059), (55, 62107), (57, 62119), (59, 62137), (62, 62167), (65, 62185), (67, 62239), (76, 62335), (77, 62341), (83, 62383), (85, 62395), (88, 62416), (92, 62446), (94, 62458), (96, 62473), (97, 62500),

Gene: Leogania\_1 Start: 390, Stop: 1157, Start Num: 36

Candidate Starts for Leogania\_1:

(Start: 36 @390 has 224 MA's), (44, 498), (47, 516), (50, 543), (55, 645), (56, 654), (59, 675), (62, 705), (76, 873), (94, 993), (122, 1140), (124, 1146),

Gene: Leviathan\_2 Start: 654, Stop: 1415, Start Num: 36

Candidate Starts for Leviathan\_2:

(Start: 36 @654 has 224 MA's), (Start: 42 @723 has 5 MA's), (44, 762), (50, 807), (55, 909), (56, 918), (62, 969), (76, 1137), (84, 1194), (88, 1218), (102, 1326), (123, 1401),

Gene: Lewan\_118 Start: 65306, Stop: 65995, Start Num: 29

Candidate Starts for Lewan\_118:

(Start: 29 @65306 has 56 MA's), (33, 65315), (Start: 38 @65372 has 2 MA's), (47, 65450), (49, 65462), (53, 65531), (60, 65627), (62, 65639), (66, 65666), (67, 65711), (74, 65792), (75, 65798), (77, 65813), (81, 65840), (84, 65864), (85, 65867), (89, 65891), (91, 65912), (92, 65918), (96, 65942),

Gene: LilDestine\_114 Start: 63966, Stop: 64655, Start Num: 29

Candidate Starts for LilDestine\_114:

(Start: 29 @63966 has 56 MA's), (33, 63975), (Start: 38 @64032 has 2 MA's), (47, 64110), (53, 64191), (60, 64287), (62, 64299), (66, 64326), (67, 64371), (74, 64452), (75, 64458), (77, 64473), (81, 64500), (84, 64524), (89, 64551), (91, 64572), (92, 64578), (96, 64602),

Gene: LilTurb\_2 Start: 652, Stop: 1413, Start Num: 36

Candidate Starts for LilTurb\_2:

(Start: 36 @652 has 224 MA's), (Start: 42 @721 has 5 MA's), (44, 760), (50, 805), (55, 907), (56, 916), (62, 967), (76, 1135), (84, 1192), (88, 1216), (102, 1324), (123, 1399),

Gene: Lilbunny\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Lilbunny\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: LionsBait\_1 Start: 359, Stop: 1189, Start Num: 36

Candidate Starts for LionsBait\_1:

(Start: 36 @359 has 224 MA's), (Start: 42 @428 has 5 MA's), (44, 467), (50, 512), (55, 614), (56, 623), (59, 644), (62, 674), (81, 875), (106, 1055), (124, 1118), (125, 1121), (132, 1142), (140, 1181),

Gene: Loadrie\_117 Start: 65338, Stop: 66027, Start Num: 29

Candidate Starts for Loadrie\_117:

(Start: 29 @65338 has 56 MA's), (33, 65347), (Start: 38 @65404 has 2 MA's), (47, 65482), (53, 65563), (60, 65659), (62, 65671), (66, 65698), (67, 65743), (74, 65824), (75, 65830), (77, 65845), (84, 65896), (85, 65899), (89, 65923), (91, 65944), (92, 65950), (96, 65974),

Gene: LogiBear\_1 Start: 473, Stop: 1210, Start Num: 36

Candidate Starts for LogiBear\_1:

(Start: 36 @473 has 224 MA's), (Start: 38 @521 has 2 MA's), (56, 737), (57, 740), (59, 758), (62, 788), (66, 815), (85, 1016), (89, 1040), (94, 1076), (107, 1172),

Gene: Lokk\_2 Start: 623, Stop: 1390, Start Num: 36

Candidate Starts for Lokk\_2:

(Start: 36 @623 has 224 MA's), (Start: 42 @692 has 5 MA's), (44, 731), (47, 749), (50, 776), (55, 878), (56, 887), (62, 938), (87, 1175), (108, 1325), (125, 1376),

Gene: Lolly9\_114 Start: 64846, Stop: 65553, Start Num: 30

Candidate Starts for Lolly9\_114:

(1, 64540), (2, 64588), (3, 64594), (4, 64603), (5, 64663), (6, 64666), (7, 64684), (10, 64717), (14, 64774), (15, 64780), (20, 64822), (21, 64831), (26, 64837), (Start: 30 @64846 has 17 MA's), (39, 64918), (48, 64999), (50, 65017), (55, 65119), (57, 65131), (58, 65137), (62, 65179), (64, 65188), (67, 65251), (74, 65332), (77, 65353), (85, 65407), (87, 65416), (96, 65485), (97, 65512), (98, 65524),

Gene: LoneWolf\_1 Start: 356, Stop: 1210, Start Num: 36

Candidate Starts for LoneWolf\_1:

(Start: 36 @356 has 224 MA's), (50, 509), (62, 671), (68, 749), (76, 839), (103, 1037), (114, 1091), (129, 1130), (133, 1139), (134, 1142), (143, 1190), (144, 1202), (145, 1205),

Gene: Looper\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Looper\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Loser\_1 Start: 369, Stop: 1133, Start Num: 36

Candidate Starts for Loser\_1:

(Start: 36 @369 has 224 MA's), (Start: 42 @438 has 5 MA's), (44, 477), (50, 522), (55, 624), (56, 633), (59, 654), (62, 684), (76, 852), (108, 1071), (125, 1119),

Gene: Luchador\_1 Start: 369, Stop: 1055, Start Num: 36

Candidate Starts for Luchador\_1:

(Start: 31 @360 has 13 MA's), (Start: 36 @369 has 224 MA's), (39, 423), (Start: 42 @438 has 5 MA's), (50, 522), (62, 684), (81, 885), (94, 972), (96, 987),

Gene: Lucivia\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Lucivia\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Lucyedi\_1 Start: 400, Stop: 1245, Start Num: 36

Candidate Starts for Lucyedi\_1:

(22, 373), (Start: 36 @400 has 224 MA's), (Start: 42 @469 has 5 MA's), (47, 526), (50, 553), (56, 664), (59, 685), (62, 715), (76, 883), (128, 1165), (134, 1177), (143, 1225), (145, 1240),

Gene: Lumos\_113 Start: 64323, Stop: 65030, Start Num: 30

Candidate Starts for Lumos\_113:

(Start: 12 @64248 has 2 MA's), (20, 64299), (26, 64314), (Start: 30 @64323 has 17 MA's), (39, 64395), (48, 64476), (49, 64479), (50, 64494), (55, 64596), (57, 64608), (58, 64614), (62, 64656), (64, 64665), (67, 64728), (68, 64734), (74, 64809), (77, 64830), (87, 64893), (96, 64962), (97, 64989), (98, 65001),

Gene: Lynnae\_117 Start: 64609, Stop: 65298, Start Num: 29

Candidate Starts for Lynnae\_117:

(Start: 29 @64609 has 56 MA's), (33, 64618), (Start: 38 @64675 has 2 MA's), (47, 64753), (53, 64834), (60, 64930), (62, 64942), (66, 64969), (67, 65014), (74, 65095), (75, 65101), (77, 65116), (84, 65167), (85, 65170), (89, 65194), (91, 65215), (92, 65221), (96, 65245),

Gene: MAckerman\_112 Start: 62208, Stop: 62918, Start Num: 29

Candidate Starts for MAckerman\_112:

(Start: 29 @62208 has 56 MA's), (37, 62262), (Start: 38 @62274 has 2 MA's), (39, 62280), (Start: 42 @62295 has 5 MA's), (47, 62355), (50, 62382), (53, 62436), (55, 62484), (57, 62496), (59, 62514), (62, 62544), (65, 62562), (67, 62616), (76, 62712), (77, 62718), (83, 62760), (85, 62772), (88, 62793), (92, 62823), (94, 62835), (96, 62850), (97, 62877),

Gene: MaCh\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for MaCh\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (76, 850),

Gene: Mabel\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Mabel\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: MajorMajor\_1 Start: 472, Stop: 1092, Start Num: 42

Candidate Starts for MajorMajor\_1:

(Start: 36 @403 has 224 MA's), (Start: 42 @472 has 5 MA's), (47, 529), (50, 556), (56, 667), (61, 712), (62, 718), (68, 796), (76, 886), (90, 973), (94, 1006),

Gene: Malec\_2 Start: 656, Stop: 1420, Start Num: 36

Candidate Starts for Malec\_2:

(Start: 36 @656 has 224 MA's), (Start: 42 @725 has 5 MA's), (44, 764), (50, 809), (59, 941), (62, 971), (67, 1043), (90, 1226), (103, 1337), (124, 1403), (125, 1406),

Gene: Maminiaina\_1 Start: 359, Stop: 1213, Start Num: 36

Candidate Starts for Maminiaina\_1:

(Start: 36 @359 has 224 MA's), (Start: 42 @428 has 5 MA's), (50, 512), (51, 539), (56, 623), (62, 674), (76, 842), (103, 1040), (114, 1091), (124, 1115), (134, 1145), (143, 1193), (144, 1205),

Gene: McFly\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for McFly\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: MegTheThird\_1 Start: 353, Stop: 1210, Start Num: 36

Candidate Starts for MegTheThird\_1:

(Start: 36 @353 has 224 MA's), (Start: 42 @422 has 5 MA's), (50, 506), (62, 668), (76, 836), (84, 893), (103, 1034), (112, 1076), (124, 1112), (134, 1142), (143, 1190), (144, 1202),

Gene: MiculUcigas\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for MiculUcigas\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: Miko\_2 Start: 601, Stop: 1368, Start Num: 36

Candidate Starts for Miko\_2:

(Start: 36 @601 has 224 MA's), (Start: 42 @670 has 5 MA's), (44, 709), (47, 727), (50, 754), (55, 856), (56, 865), (62, 916), (87, 1153), (108, 1303), (125, 1354),

Gene: Miley16\_117 Start: 65179, Stop: 65868, Start Num: 29

Candidate Starts for Miley16\_117:

(Start: 29 @65179 has 56 MA's), (33, 65188), (Start: 38 @65245 has 2 MA's), (47, 65323), (49, 65335), (53, 65404), (60, 65500), (62, 65512), (66, 65539), (67, 65584), (74, 65665), (75, 65671), (77, 65686), (81, 65713), (84, 65737), (89, 65764), (91, 65785), (92, 65791), (96, 65815),

Gene: MinecraftSteve\_2 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for MinecraftSteve\_2:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: MiniLon\_119 Start: 64847, Stop: 65554, Start Num: 30

Candidate Starts for MiniLon\_119:

(1, 64541), (2, 64589), (3, 64595), (4, 64604), (5, 64664), (6, 64667), (7, 64685), (10, 64718), (14, 64775), (15, 64781), (20, 64823), (21, 64832), (26, 64838), (Start: 30 @64847 has 17 MA's), (39, 64919), (48, 65000), (50, 65018), (55, 65120), (57, 65132), (58, 65138), (62, 65180), (64, 65189), (67, 65252), (74, 65333), (77, 65354), (85, 65408), (87, 65417), (96, 65486), (97, 65513), (98, 65525),

Gene: MiniMac\_119 Start: 64849, Stop: 65556, Start Num: 30

Candidate Starts for MiniMac\_119:

(1, 64543), (2, 64591), (3, 64597), (4, 64606), (5, 64666), (6, 64669), (7, 64687), (10, 64720), (14, 64777), (15, 64783), (20, 64825), (21, 64834), (26, 64840), (Start: 30 @64849 has 17 MA's), (39, 64921), (48, 65002), (50, 65020), (55, 65122), (57, 65134), (58, 65140), (62, 65182), (64, 65191), (67, 65254), (74, 65335), (77, 65356), (85, 65410), (87, 65419), (94, 65473), (96, 65488), (97, 65515), (98, 65527),

Gene: MissWhite\_1 Start: 401, Stop: 1090, Start Num: 36

Candidate Starts for MissWhite\_1:

(Start: 36 @401 has 224 MA's), (Start: 42 @470 has 5 MA's), (47, 527), (50, 554), (56, 665), (62, 716), (72, 857), (76, 884), (88, 965),

Gene: MkaliMitinis3\_120 Start: 65023, Stop: 65712, Start Num: 29

Candidate Starts for MkaliMitinis3\_120:

(Start: 29 @65023 has 56 MA's), (33, 65032), (Start: 38 @65089 has 2 MA's), (47, 65167), (53, 65248), (60, 65344), (62, 65356), (66, 65383), (67, 65428), (74, 65509), (75, 65515), (77, 65530), (84, 65581), (85, 65584), (89, 65608), (91, 65629), (92, 65635), (96, 65659),

Gene: Moostard\_109 Start: 64428, Stop: 65135, Start Num: 30

Candidate Starts for Moostard\_109:

(Start: 12 @64353 has 2 MA's), (20, 64404), (26, 64419), (Start: 30 @64428 has 17 MA's), (Start: 38 @64494 has 2 MA's), (39, 64500), (48, 64581), (49, 64584), (50, 64599), (55, 64701), (57, 64713), (58, 64719), (62, 64761), (64, 64770), (67, 64833), (74, 64914), (77, 64935), (87, 64998), (94, 65052), (96, 65067), (97, 65094), (98, 65106),

Gene: MsGreen\_114 Start: 64250, Stop: 65032, Start Num: 12

Candidate Starts for MsGreen\_114:

(Start: 12 @64250 has 2 MA's), (20, 64301), (26, 64316), (Start: 30 @64325 has 17 MA's), (39, 64397), (48, 64478), (49, 64481), (50, 64496), (55, 64598), (57, 64610), (58, 64616), (62, 64658), (64, 64667), (67, 64730), (68, 64736), (74, 64811), (77, 64832), (87, 64895), (96, 64964), (97, 64991), (98, 65003),

Gene: Mulciber\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Mulciber\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Munch\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Munch\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Myxus\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Myxus\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (122, 1132), (123, 1135), (129, 1153),

Gene: NaSiaTalie\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for NaSiaTalie\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: Naji\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for Naji\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: Nebulosus\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Nebulosus\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Nedarya\_1 Start: 399, Stop: 1232, Start Num: 36

Candidate Starts for Nedarya\_1:

(Start: 36 @399 has 224 MA's), (50, 552), (56, 663), (62, 714), (64, 723), (76, 882), (82, 924), (85, 942), (104, 1086), (113, 1122), (119, 1143), (131, 1176), (134, 1188), (141, 1227),

Gene: Neeharika16\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Neeharika16\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Netyap\_115 Start: 64893, Stop: 65582, Start Num: 29

Candidate Starts for Netyap\_115:

(Start: 29 @64893 has 56 MA's), (33, 64902), (Start: 38 @64959 has 2 MA's), (47, 65037), (49, 65049), (53, 65118), (60, 65214), (62, 65226), (66, 65253), (67, 65298), (74, 65379), (75, 65385), (77, 65400), (81, 65427), (84, 65451), (89, 65478), (91, 65499), (92, 65505), (96, 65529),

Gene: Newrala\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Newrala\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Nicholas\_111 Start: 64433, Stop: 65140, Start Num: 30

Candidate Starts for Nicholas\_111:

(Start: 12 @64358 has 2 MA's), (20, 64409), (26, 64424), (Start: 30 @64433 has 17 MA's), (Start: 38 @64499 has 2 MA's), (39, 64505), (48, 64586), (49, 64589), (50, 64604), (55, 64706), (57, 64718), (58, 64724), (62, 64766), (64, 64775), (67, 64838), (74, 64919), (77, 64940), (87, 65003), (94, 65057), (96, 65072), (97, 65099), (98, 65111),

Gene: Nicholasp3\_117 Start: 64511, Stop: 65200, Start Num: 29

Candidate Starts for Nicholasp3\_117:

(Start: 29 @64511 has 56 MA's), (33, 64520), (Start: 38 @64577 has 2 MA's), (47, 64655), (53, 64736), (60, 64832), (62, 64844), (66, 64871), (67, 64916), (74, 64997), (75, 65003), (77, 65018), (81, 65045), (84, 65069), (89, 65096), (91, 65117), (92, 65123), (96, 65147),

Gene: NicoleTera\_1 Start: 401, Stop: 1168, Start Num: 36

Candidate Starts for NicoleTera\_1:

(8, 224), (Start: 36 @401 has 224 MA's), (Start: 42 @470 has 5 MA's), (47, 527), (50, 554), (55, 656), (56, 665), (59, 686), (62, 716), (76, 884), (87, 953), (108, 1103), (125, 1154),

Gene: NothingSpecial\_1 Start: 398, Stop: 1165, Start Num: 36

Candidate Starts for NothingSpecial\_1:

(Start: 31 @386 has 13 MA's), (Start: 36 @398 has 224 MA's), (39, 452), (Start: 42 @467 has 5 MA's), (47, 524), (50, 551), (55, 653), (56, 662), (59, 683), (62, 713), (76, 881), (88, 962),

Gene: OhShagHennessy\_105 Start: 61012, Stop: 61722, Start Num: 29

Candidate Starts for OhShagHennessy\_105:

(Start: 29 @61012 has 56 MA's), (37, 61066), (Start: 38 @61078 has 2 MA's), (39, 61084), (Start: 42 @61099 has 5 MA's), (47, 61159), (50, 61186), (53, 61240), (55, 61288), (57, 61300), (59, 61318), (62, 61348), (65, 61366), (67, 61420), (71, 61441), (76, 61516), (77, 61522), (83, 61564), (85, 61576), (88, 61597), (92, 61627), (94, 61639), (96, 61654), (97, 61681),

Gene: Oofda\_1 Start: 431, Stop: 1261, Start Num: 36

Candidate Starts for Oofda\_1:

(Start: 36 @431 has 224 MA's), (50, 584), (56, 695), (62, 746), (76, 914), (82, 956), (85, 974), (105, 1121), (113, 1154), (134, 1214),

Gene: Orange\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Orange\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: PYPDinur\_127 Start: 66604, Stop: 67302, Start Num: 24

Candidate Starts for PYPDinur\_127:

(24, 66604), (28, 66607), (Start: 29 @66613 has 56 MA's), (Start: 38 @66679 has 2 MA's), (Start: 42 @66700 has 5 MA's), (49, 66769), (52, 66826), (53, 66838), (55, 66886), (57, 66898), (58, 66904), (62, 66946), (66, 66973), (67, 67018), (74, 67099), (77, 67120), (81, 67147), (87, 67183), (90, 67201), (91, 67219),

Gene: PackMan\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for PackMan\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (122, 1132), (123, 1135), (129, 1153),

Gene: PainterBoy\_1 Start: 400, Stop: 1245, Start Num: 36

Candidate Starts for PainterBoy\_1:

(22, 373), (Start: 36 @400 has 224 MA's), (Start: 42 @469 has 5 MA's), (47, 526), (50, 553), (56, 664), (59, 685), (62, 715), (76, 883), (128, 1165), (134, 1177), (143, 1225), (145, 1240),

Gene: Petersenfast\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Petersenfast\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Phaded\_1 Start: 303, Stop: 1154, Start Num: 16

Candidate Starts for Phaded\_1:

(Start: 16 @303 has 1 MA's), (Start: 36 @387 has 224 MA's), (Start: 42 @456 has 5 MA's), (47, 513), (50, 540), (55, 642), (56, 651), (59, 672), (62, 702), (76, 870), (88, 951), (122, 1137),

Gene: Phaeder\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Phaeder\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (122, 1132), (123, 1135), (129, 1153),

Gene: Pharaoh\_1 Start: 361, Stop: 1212, Start Num: 31

Candidate Starts for Pharaoh\_1:

(Start: 31 @361 has 13 MA's), (Start: 38 @418 has 2 MA's), (50, 523), (54, 601), (62, 685), (76, 853), (83, 901), (99, 1030), (104, 1060), (116, 1108), (126, 1132), (130, 1144), (135, 1168), (142, 1204),

Gene: Phonnegut\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Phonnegut\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (119, 1126), (122, 1132), (123, 1135), (129, 1153),

Gene: Pioneer\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Pioneer\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (119, 1126), (122, 1132), (123, 1135), (129, 1153),

Gene: Piro94\_1 Start: 643, Stop: 1380, Start Num: 36

Candidate Starts for Piro94\_1:

(Start: 36 @643 has 224 MA's), (Start: 42 @712 has 5 MA's), (47, 769), (50, 796), (55, 898), (56, 907), (59, 928), (62, 958), (68, 1036), (76, 1126), (94, 1246),

Gene: Pmask\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Pmask\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Polyphemus\_1 Start: 420, Stop: 1178, Start Num: 36

Candidate Starts for Polyphemus\_1:

(Start: 36 @420 has 224 MA's), (Start: 42 @489 has 5 MA's), (50, 573), (52, 615), (56, 684), (59, 705), (62, 735), (76, 903), (88, 984),

Gene: Pomar16\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for Pomar16\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: Poochiewood\_108 Start: 63406, Stop: 64116, Start Num: 29

Candidate Starts for Poochiewood\_108:

(9, 63265), (21, 63391), (Start: 29 @63406 has 56 MA's), (37, 63460), (Start: 38 @63472 has 2 MA's), (39, 63478), (Start: 42 @63493 has 5 MA's), (47, 63553), (50, 63580), (53, 63634), (55, 63682), (57, 63694), (59, 63712), (62, 63742), (65, 63760), (67, 63814), (76, 63910), (77, 63916), (83, 63958), (85, 63970), (88, 63991), (90, 63997), (92, 64021), (94, 64033), (96, 64048), (97, 64075),

Gene: Power\_2 Start: 665, Stop: 1432, Start Num: 36

Candidate Starts for Power\_2:

(Start: 36 @665 has 224 MA's), (Start: 42 @734 has 5 MA's), (44, 773), (50, 818), (62, 980), (68, 1058), (89, 1232), (103, 1346), (125, 1418),

Gene: Priamo\_1 Start: 502, Stop: 1191, Start Num: 42

Candidate Starts for Priamo\_1:

(Start: 36 @433 has 224 MA's), (Start: 42 @502 has 5 MA's), (50, 586), (52, 628), (56, 697), (59, 718), (62, 748), (76, 916), (88, 997),

Gene: Priya\_1 Start: 379, Stop: 1158, Start Num: 36

Candidate Starts for Priya\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (90, 949), (94, 982), (96, 997), (119, 1123), (122, 1129), (123, 1132), (129, 1150),

Gene: Prudy\_1 Start: 391, Stop: 1071, Start Num: 36

Candidate Starts for Prudy\_1:

(Start: 36 @391 has 224 MA's), (Start: 42 @460 has 5 MA's), (50, 544), (56, 655), (62, 706), (76, 874), (80, 904),

Gene: Pukovnik\_1 Start: 366, Stop: 1130, Start Num: 35

Candidate Starts for Pukovnik\_1:

(Start: 35 @366 has 1 MA's), (Start: 42 @435 has 5 MA's), (50, 519), (55, 621), (56, 630), (59, 651), (62, 681), (66, 708), (76, 849), (84, 906), (88, 930), (122, 1113),

Gene: Qobbit\_1 Start: 379, Stop: 1158, Start Num: 36

Candidate Starts for Qobbit\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (90, 949), (94, 982), (96, 997), (119, 1123), (122, 1129), (123, 1132), (129, 1150),

Gene: Quby\_126 Start: 65880, Stop: 66569, Start Num: 29

Candidate Starts for Quby\_126:

(Start: 29 @65880 has 56 MA's), (Start: 38 @65946 has 2 MA's), (Start: 42 @65967 has 5 MA's), (49, 66036), (52, 66093), (53, 66105), (55, 66153), (57, 66165), (58, 66171), (62, 66213), (66, 66240), (67, 66285), (74, 66366), (77, 66387), (81, 66414), (90, 66468), (91, 66486), (95, 66507),

Gene: QueenB2\_2 Start: 667, Stop: 1497, Start Num: 36

Candidate Starts for QueenB2\_2:

(Start: 36 @667 has 224 MA's), (Start: 42 @736 has 5 MA's), (50, 820), (56, 931), (60, 970), (62, 982), (83, 1198), (125, 1426), (130, 1441), (140, 1489),

Gene: QueenBeesly\_2 Start: 666, Stop: 1433, Start Num: 36

Candidate Starts for QueenBeesly\_2:

(Start: 36 @666 has 224 MA's), (Start: 42 @735 has 5 MA's), (44, 774), (50, 819), (62, 981), (68, 1059), (89, 1233), (103, 1347), (125, 1419),

Gene: Quokka\_1 Start: 472, Stop: 1092, Start Num: 42

Candidate Starts for Quokka\_1:

(Start: 36 @403 has 224 MA's), (Start: 42 @472 has 5 MA's), (47, 529), (50, 556), (56, 667), (61, 712), (62, 718), (68, 796), (76, 886), (90, 973), (94, 1006),

Gene: Rachaly\_2 Start: 621, Stop: 1388, Start Num: 36

Candidate Starts for Rachaly\_2:

(Start: 36 @621 has 224 MA's), (Start: 42 @690 has 5 MA's), (44, 729), (47, 747), (50, 774), (55, 876), (56, 885), (62, 936), (87, 1173), (108, 1323), (125, 1374),

Gene: Rahalelujah\_1 Start: 356, Stop: 1204, Start Num: 36

Candidate Starts for Rahalelujah\_1:

(Start: 36 @356 has 224 MA's), (50, 509), (52, 551), (62, 671), (76, 839), (103, 1037), (110, 1067), (124, 1112), (134, 1136), (137, 1160),

Gene: Ravana\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Ravana\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: ReMo\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for ReMo\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Red305\_114 Start: 64326, Stop: 65033, Start Num: 30

Candidate Starts for Red305\_114:

(Start: 12 @64251 has 2 MA's), (20, 64302), (26, 64317), (Start: 30 @64326 has 17 MA's), (39, 64398), (48, 64479), (49, 64482), (50, 64497), (55, 64599), (57, 64611), (58, 64617), (62, 64659), (64, 64668), (67, 64731), (68, 64737), (74, 64812), (77, 64833), (87, 64896), (96, 64965), (97, 64992), (98, 65004),

Gene: RedRock\_1 Start: 370, Stop: 1134, Start Num: 36

Candidate Starts for RedRock\_1:

(Start: 36 @370 has 224 MA's), (Start: 42 @439 has 5 MA's), (44, 478), (50, 523), (55, 625), (56, 634), (59, 655), (62, 685), (76, 853), (90, 940), (108, 1072), (125, 1120),

Gene: Refuge\_1 Start: 438, Stop: 1235, Start Num: 38

Candidate Starts for Refuge\_1:

(Start: 31 @381 has 13 MA's), (Start: 38 @438 has 2 MA's), (50, 543), (62, 705), (76, 873), (99, 1050), (104, 1080), (126, 1155), (130, 1167), (139, 1215), (142, 1227),

Gene: Remus\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Remus\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Retro23\_2 Start: 664, Stop: 1497, Start Num: 36

Candidate Starts for Retro23\_2:

(Start: 36 @664 has 224 MA's), (Start: 42 @733 has 5 MA's), (50, 817), (56, 928), (60, 967), (62, 979), (83, 1195), (90, 1234), (125, 1426), (131, 1444), (140, 1489),

Gene: Rifter\_1 Start: 410, Stop: 1171, Start Num: 36

Candidate Starts for Rifter\_1:

(Start: 36 @410 has 224 MA's), (Start: 42 @479 has 5 MA's), (50, 563), (56, 674), (59, 695), (62, 725), (76, 893), (88, 974), (119, 1148), (126, 1163),

Gene: Roksolana\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Roksolana\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Rosalind\_1 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for Rosalind\_1:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: Rose5\_112 Start: 62505, Stop: 63215, Start Num: 29

Candidate Starts for Rose5\_112:

(Start: 29 @62505 has 56 MA's), (37, 62559), (Start: 38 @62571 has 2 MA's), (39, 62577), (Start: 42 @62592 has 5 MA's), (47, 62652), (50, 62679), (53, 62733), (55, 62781), (57, 62793), (59, 62811), (62, 62841), (65, 62859), (67, 62913), (76, 63009), (77, 63015), (83, 63057), (85, 63069), (88, 63090), (92, 63120), (94, 63132), (96, 63147), (97, 63174),

Gene: Rossetti\_116 Start: 64458, Stop: 65147, Start Num: 29

Candidate Starts for Rossetti\_116:

(Start: 29 @64458 has 56 MA's), (33, 64467), (Start: 38 @64524 has 2 MA's), (47, 64602), (53, 64683), (60, 64779), (62, 64791), (66, 64818), (67, 64863), (74, 64944), (75, 64950), (77, 64965), (82, 65001), (84, 65016), (85, 65019), (89, 65043), (91, 65064), (92, 65070), (96, 65094),

Gene: Rumpelstiltskin\_103 Start: 62845, Stop: 63534, Start Num: 29

Candidate Starts for Rumpelstiltskin\_103:

(Start: 29 @62845 has 56 MA's), (33, 62854), (Start: 38 @62911 has 2 MA's), (47, 62989), (49, 63001), (53, 63070), (60, 63166), (62, 63178), (66, 63205), (67, 63250), (74, 63331), (75, 63337), (77, 63352), (81, 63379), (84, 63403), (89, 63430), (91, 63451), (92, 63457), (96, 63481),

Gene: Salz\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Salz\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Samty\_113 Start: 64420, Stop: 65127, Start Num: 30

Candidate Starts for Samty\_113:

(11, 64324), (25, 64411), (Start: 30 @64420 has 17 MA's), (Start: 38 @64486 has 2 MA's), (39, 64492), (48, 64573), (49, 64576), (50, 64591), (55, 64693), (57, 64705), (58, 64711), (62, 64753), (64, 64762), (67, 64825), (74, 64906), (77, 64927), (87, 64990), (94, 65044), (96, 65059), (97, 65086), (98, 65098),

Gene: Sarshaun\_118 Start: 65778, Stop: 66467, Start Num: 29

Candidate Starts for Sarshaun\_118:

(Start: 29 @65778 has 56 MA's), (33, 65787), (Start: 38 @65844 has 2 MA's), (47, 65922), (53, 66003), (60, 66099), (62, 66111), (66, 66138), (67, 66183), (74, 66264), (75, 66270), (77, 66285), (84, 66336), (85, 66339), (89, 66363), (91, 66384), (92, 66390), (96, 66414),

Gene: Saskia\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Saskia\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850), (99, 1027),

Gene: Scherzo\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Scherzo\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (119, 1126), (122, 1132), (123, 1135), (129, 1153),

Gene: SemperFi\_2 Start: 666, Stop: 1433, Start Num: 36

Candidate Starts for SemperFi\_2:

(Start: 36 @666 has 224 MA's), (Start: 42 @735 has 5 MA's), (44, 774), (50, 819), (62, 981), (68, 1059), (89, 1233), (103, 1347), (125, 1419),

Gene: Serenity\_1 Start: 403, Stop: 1092, Start Num: 36

Candidate Starts for Serenity\_1:

(Start: 36 @403 has 224 MA's), (Start: 42 @472 has 5 MA's), (47, 529), (50, 556), (56, 667), (61, 712), (62, 718), (68, 796), (76, 886), (90, 973), (94, 1006),

Gene: Sham4\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Sham4\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: ShayRa\_2 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for ShayRa\_2:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: SheaKeira\_1 Start: 356, Stop: 1213, Start Num: 36

Candidate Starts for SheaKeira\_1:

(Start: 36 @356 has 224 MA's), (Start: 42 @425 has 5 MA's), (50, 509), (51, 536), (62, 671), (68, 749), (76, 839), (84, 896), (96, 974), (103, 1037), (124, 1112), (138, 1172), (143, 1193), (145, 1208),

Gene: Sheng711\_127 Start: 65929, Stop: 66618, Start Num: 29

Candidate Starts for Sheng711\_127:

(13, 65857), (Start: 29 @65929 has 56 MA's), (Start: 38 @65995 has 2 MA's), (Start: 42 @66016 has 5 MA's), (44, 66055), (47, 66073), (49, 66085), (52, 66142), (53, 66154), (55, 66202), (57, 66214), (58, 66220), (62, 66262), (66, 66289), (67, 66334), (74, 66415), (76, 66430), (77, 66436), (81, 66463), (90, 66517), (91, 66535), (92, 66541), (95, 66556),

Gene: Silverleaf\_109 Start: 61642, Stop: 62349, Start Num: 29

Candidate Starts for Silverleaf\_109:

(21, 61627), (Start: 29 @61642 has 56 MA's), (Start: 38 @61708 has 2 MA's), (39, 61714), (Start: 42 @61729 has 5 MA's), (44, 61768), (50, 61813), (57, 61927), (58, 61933), (59, 61945), (62, 61975), (65, 61993), (67, 62047), (76, 62143), (77, 62149), (83, 62191), (85, 62203), (88, 62224), (90, 62230), (92, 62254), (94, 62266), (96, 62281), (97, 62308),

Gene: Sknot\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for Sknot\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: Smeagan\_2 Start: 654, Stop: 1415, Start Num: 36

Candidate Starts for Smeagan\_2:

(Start: 36 @654 has 224 MA's), (Start: 42 @723 has 5 MA's), (44, 762), (50, 807), (55, 909), (56, 918), (62, 969), (76, 1137), (84, 1194), (88, 1218), (102, 1326), (123, 1401),

Gene: SmellyB\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for SmellyB\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: SnapTap\_2 Start: 665, Stop: 1432, Start Num: 36

Candidate Starts for SnapTap\_2:

(Start: 36 @665 has 224 MA's), (Start: 42 @734 has 5 MA's), (44, 773), (50, 818), (62, 980), (68, 1058), (89, 1232), (103, 1346), (125, 1418),

Gene: Snape\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Snape\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: Snenia\_112 Start: 64327, Stop: 65034, Start Num: 30

Candidate Starts for Snenia\_112:

(Start: 12 @64252 has 2 MA's), (20, 64303), (26, 64318), (Start: 30 @64327 has 17 MA's), (39, 64399), (48, 64480), (49, 64483), (50, 64498), (55, 64600), (57, 64612), (58, 64618), (62, 64660), (64, 64669), (67, 64732), (68, 64738), (74, 64813), (77, 64834), (87, 64897), (96, 64966), (97, 64993), (98, 65005),

Gene: SoJulia\_119 Start: 66522, Stop: 67211, Start Num: 29

Candidate Starts for SoJulia\_119:

(Start: 29 @66522 has 56 MA's), (33, 66531), (Start: 38 @66588 has 2 MA's), (47, 66666), (60, 66843), (62, 66855), (66, 66882), (67, 66927), (74, 67008), (75, 67014), (77, 67029), (84, 67080), (89, 67107), (91, 67128), (92, 67134), (96, 67158),

Gene: Soap141\_117 Start: 65778, Stop: 66467, Start Num: 29

Candidate Starts for Soap141\_117:

(Start: 29 @65778 has 56 MA's), (33, 65787), (Start: 38 @65844 has 2 MA's), (47, 65922), (53, 66003), (60, 66099), (62, 66111), (66, 66138), (67, 66183), (74, 66264), (75, 66270), (77, 66285), (84, 66336),

(85, 66339), (89, 66363), (91, 66384), (92, 66390), (96, 66414),

Gene: SororFago\_1 Start: 369, Stop: 1055, Start Num: 36

Candidate Starts for SororFago\_1:

(Start: 31 @360 has 13 MA's), (Start: 36 @369 has 224 MA's), (39, 423), (Start: 42 @438 has 5 MA's), (50, 522), (59, 654), (60, 672), (62, 684), (81, 885), (94, 972), (96, 987),

Gene: Soups\_1 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for Soups\_1:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: Spouty\_1 Start: 379, Stop: 1158, Start Num: 36

Candidate Starts for Spouty\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (90, 949), (94, 982), (96, 997), (119, 1123), (122, 1129), (123, 1132), (129, 1150),

Gene: StarStuff\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for StarStuff\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: Steamy\_1 Start: 361, Stop: 1296, Start Num: 31

Candidate Starts for Steamy\_1:

(17, 289), (Start: 31 @361 has 13 MA's), (Start: 38 @418 has 2 MA's), (39, 424), (44, 478), (50, 523), (51, 550), (54, 601), (62, 685), (76, 853), (83, 901), (99, 1030), (105, 1063), (117, 1114), (120, 1120), (130, 1147), (139, 1195), (142, 1207), (144, 1222),

Gene: Strosahl\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Strosahl\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Sunhee\_1 Start: 362, Stop: 1057, Start Num: 31

Candidate Starts for Sunhee\_1:

(Start: 31 @362 has 13 MA's), (Start: 36 @371 has 224 MA's), (39, 425), (50, 524), (58, 644), (62, 686), (67, 758), (81, 887), (88, 935), (94, 974), (96, 989),

Gene: SuperAwesome\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for SuperAwesome\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: SuperCallie99\_1 Start: 419, Stop: 1177, Start Num: 36

Candidate Starts for SuperCallie99\_1:

(Start: 36 @419 has 224 MA's), (Start: 42 @488 has 5 MA's), (50, 572), (52, 614), (56, 683), (59, 704), (62, 734), (76, 902), (88, 983),

Gene: Superchunk\_1 Start: 381, Stop: 1229, Start Num: 31

Candidate Starts for Superchunk\_1:

(Start: 31 @381 has 13 MA's), (39, 444), (40, 447), (Start: 42 @459 has 5 MA's), (47, 516), (50, 543), (51, 570), (52, 585), (62, 705), (68, 783), (76, 873), (88, 954),

Gene: SweetiePie\_2 Start: 666, Stop: 1433, Start Num: 36

Candidate Starts for SweetiePie\_2:

(Start: 36 @666 has 224 MA's), (Start: 42 @735 has 5 MA's), (44, 774), (50, 819), (62, 981), (68, 1059), (89, 1233), (103, 1347), (125, 1419),

Gene: SwirlSquare\_1 Start: 383, Stop: 1153, Start Num: 31

Candidate Starts for SwirlSquare\_1:

(Start: 31 @383 has 13 MA's), (39, 446), (40, 449), (Start: 42 @461 has 5 MA's), (47, 518), (50, 545), (51, 572), (52, 587), (62, 707), (66, 734), (68, 785), (69, 788), (76, 875), (88, 956),

Gene: Switzerland\_1 Start: 577, Stop: 1407, Start Num: 36

Candidate Starts for Switzerland\_1:

(Start: 36 @577 has 224 MA's), (50, 730), (56, 841), (62, 892), (76, 1060), (82, 1102), (85, 1120), (105, 1267), (113, 1300), (130, 1345), (134, 1360),

Gene: TarsusIV\_2 Start: 660, Stop: 1427, Start Num: 36

Candidate Starts for TarsusIV\_2:

(Start: 36 @660 has 224 MA's), (Start: 42 @729 has 5 MA's), (44, 768), (50, 813), (56, 924), (62, 975), (87, 1212), (108, 1362), (124, 1410), (125, 1413),

Gene: Temprado\_1 Start: 487, Stop: 1176, Start Num: 42

Candidate Starts for Temprado\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Terrific\_2 Start: 641, Stop: 1375, Start Num: 36

Candidate Starts for Terrific\_2:

(Start: 36 @641 has 224 MA's), (Start: 42 @710 has 5 MA's), (44, 749), (50, 794), (55, 896), (56, 905), (59, 926), (62, 956), (76, 1124), (94, 1244),

Gene: Timothy\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for Timothy\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: TinyTimmy\_1 Start: 367, Stop: 1107, Start Num: 36

Candidate Starts for TinyTimmy\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: TipsytheTRex\_1 Start: 401, Stop: 1090, Start Num: 36

Candidate Starts for TipsytheTRex\_1:

(Start: 36 @401 has 224 MA's), (Start: 42 @470 has 5 MA's), (47, 527), (50, 554), (61, 710), (62, 716), (68, 794), (76, 884), (90, 971), (94, 1004),

Gene: Toaka\_1 Start: 378, Stop: 1127, Start Num: 36

Candidate Starts for Toaka\_1:

(Start: 36 @378 has 224 MA's), (Start: 42 @447 has 5 MA's), (50, 531), (52, 573), (62, 693), (76, 861), (99, 1038), (111, 1092),

Gene: Tomathan\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for Tomathan\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: ToneTone\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for ToneTone\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Tourach\_117 Start: 65935, Stop: 66624, Start Num: 29

Candidate Starts for Tourach\_117:

(Start: 29 @65935 has 56 MA's), (33, 65944), (Start: 38 @66001 has 2 MA's), (47, 66079), (53, 66160), (60, 66256), (62, 66268), (66, 66295), (67, 66340), (74, 66421), (75, 66427), (76, 66436), (77, 66442), (84, 66493), (89, 66520), (91, 66541), (92, 66547), (96, 66571),

Gene: Travvers\_1 Start: 392, Stop: 1204, Start Num: 36

Candidate Starts for Travvers\_1:

(Start: 36 @392 has 224 MA's), (Start: 42 @461 has 5 MA's), (50, 545), (56, 656), (62, 707), (68, 785), (76, 875), (94, 995), (108, 1094), (125, 1154), (127, 1160), (131, 1172),

Gene: TriFive\_114 Start: 64439, Stop: 65146, Start Num: 30

Candidate Starts for TriFive\_114:

(Start: 12 @64364 has 2 MA's), (20, 64415), (26, 64430), (Start: 30 @64439 has 17 MA's), (39, 64511), (48, 64592), (49, 64595), (50, 64610), (55, 64712), (57, 64724), (58, 64730), (62, 64772), (64, 64781), (67, 64844), (68, 64850), (74, 64925), (77, 64946), (87, 65009), (96, 65078), (97, 65105), (98, 65117),

Gene: Tristan\_1 Start: 388, Stop: 1155, Start Num: 36

Candidate Starts for Tristan\_1:

(Start: 36 @388 has 224 MA's), (Start: 42 @457 has 5 MA's), (47, 514), (50, 541), (55, 643), (56, 652), (59, 673), (62, 703), (76, 871), (88, 952), (122, 1138),

Gene: Trixie\_1 Start: 507, Stop: 1274, Start Num: 36

Candidate Starts for Trixie\_1:

(Start: 36 @507 has 224 MA's), (Start: 42 @576 has 5 MA's), (50, 660), (56, 771), (62, 822), (76, 990), (88, 1071), (90, 1077), (111, 1221), (119, 1251), (123, 1260),

Gene: Trooper\_2 Start: 663, Stop: 1421, Start Num: 36

Candidate Starts for Trooper\_2:

(Start: 36 @663 has 224 MA's), (Start: 42 @732 has 5 MA's), (50, 816), (51, 843), (56, 927), (59, 948), (62, 978), (76, 1146), (88, 1227),

Gene: Tubs\_1 Start: 379, Stop: 1161, Start Num: 36

Candidate Starts for Tubs\_1:

(Start: 36 @379 has 224 MA's), (39, 433), (47, 505), (52, 574), (62, 694), (65, 712), (75, 853), (76, 862), (96, 997), (122, 1132), (123, 1135), (129, 1153),

Gene: Tucker\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Tucker\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Turbido\_2 Start: 652, Stop: 1413, Start Num: 36

Candidate Starts for Turbido\_2:

(Start: 36 @652 has 224 MA's), (Start: 42 @721 has 5 MA's), (44, 760), (50, 805), (55, 907), (56, 916), (62, 967), (76, 1135), (84, 1192), (88, 1216), (102, 1324), (123, 1399),

Gene: Tyson\_113 Start: 62935, Stop: 63645, Start Num: 29

Candidate Starts for Tyson\_113:

(Start: 29 @62935 has 56 MA's), (37, 62989), (Start: 38 @63001 has 2 MA's), (39, 63007), (Start: 42 @63022 has 5 MA's), (47, 63082), (50, 63109), (53, 63163), (55, 63211), (57, 63223), (59, 63241), (62, 63271), (65, 63289), (67, 63343), (76, 63439), (77, 63445), (83, 63487), (85, 63499), (88, 63520), (92, 63550), (94, 63562), (96, 63577), (97, 63604),

Gene: UPIE\_110 Start: 62175, Stop: 62882, Start Num: 29

Candidate Starts for UPIE\_110:

(Start: 29 @62175 has 56 MA's), (37, 62229), (Start: 38 @62241 has 2 MA's), (39, 62247), (Start: 42 @62262 has 5 MA's), (44, 62301), (47, 62319), (50, 62346), (53, 62400), (55, 62448), (57, 62460), (59, 62478), (62, 62508), (65, 62526), (67, 62580), (76, 62676), (77, 62682), (83, 62724), (85, 62736), (88, 62757), (92, 62787), (94, 62799), (96, 62814), (97, 62841),

Gene: Underpass\_109 Start: 59547, Stop: 60236, Start Num: 29

Candidate Starts for Underpass\_109:

(Start: 29 @59547 has 56 MA's), (33, 59556), (Start: 38 @59613 has 2 MA's), (47, 59691), (53, 59772), (60, 59868), (62, 59880), (66, 59907), (67, 59952), (74, 60033), (75, 60039), (77, 60054), (81, 60081), (84, 60105), (89, 60132), (91, 60153), (92, 60159), (96, 60183),

Gene: Updawg\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for Updawg\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: VA6\_1 Start: 568, Stop: 1329, Start Num: 36

Candidate Starts for VA6\_1:

(23, 535), (Start: 36 @568 has 224 MA's), (Start: 42 @637 has 5 MA's), (44, 676), (50, 721), (55, 823), (56, 832), (59, 853), (62, 883), (76, 1051), (102, 1240), (123, 1315),

Gene: VC3\_1 Start: 391, Stop: 1203, Start Num: 36

Candidate Starts for VC3\_1:

(Start: 36 @391 has 224 MA's), (Start: 42 @460 has 5 MA's), (50, 544), (56, 655), (62, 706), (68, 784), (76, 874), (94, 994), (108, 1093), (125, 1153), (127, 1159), (131, 1171),

Gene: Vanisoa\_1 Start: 356, Stop: 1204, Start Num: 36

Candidate Starts for Vanisoa\_1:

(Start: 36 @356 has 224 MA's), (50, 509), (52, 551), (62, 671), (68, 749), (76, 839), (103, 1037), (110, 1067), (130, 1124), (134, 1136), (137, 1160), (143, 1184), (144, 1196),

Gene: Vetric\_116 Start: 65421, Stop: 66110, Start Num: 29

Candidate Starts for Vetric\_116:

(Start: 29 @65421 has 56 MA's), (33, 65430), (Start: 38 @65487 has 2 MA's), (47, 65565), (53, 65646), (60, 65742), (62, 65754), (66, 65781), (67, 65826), (74, 65907), (75, 65913), (77, 65928), (81, 65955), (83, 65970), (84, 65979), (85, 65982), (89, 66006), (91, 66027), (92, 66033), (96, 66057),

Gene: VohminGhazi\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for VohminGhazi\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Waits\_1 Start: 430, Stop: 1260, Start Num: 36

Candidate Starts for Waits\_1:

(Start: 36 @430 has 224 MA's), (50, 583), (56, 694), (62, 745), (76, 913), (82, 955), (85, 973), (105, 1120), (113, 1153), (130, 1198), (134, 1213),

Gene: Wamburgexpress\_110 Start: 62568, Stop: 63278, Start Num: 29

Candidate Starts for Wamburgexpress\_110:

(Start: 29 @62568 has 56 MA's), (37, 62622), (Start: 38 @62634 has 2 MA's), (39, 62640), (Start: 42 @62655 has 5 MA's), (47, 62715), (50, 62742), (53, 62796), (55, 62844), (57, 62856), (59, 62874), (62, 62904), (65, 62922), (67, 62976), (76, 63072), (77, 63078), (83, 63120), (85, 63132), (88, 63153), (92, 63183), (94, 63195), (96, 63210), (97, 63237),

Gene: Warrior24\_1 Start: 431, Stop: 1261, Start Num: 36

Candidate Starts for Warrior24\_1:

(Start: 36 @431 has 224 MA's), (50, 584), (56, 695), (62, 746), (76, 914), (82, 956), (85, 974), (105, 1121), (113, 1154), (134, 1214),

Gene: WeiHuaDA\_2 Start: 644, Stop: 1411, Start Num: 36

Candidate Starts for WeiHuaDA\_2:

(Start: 36 @644 has 224 MA's), (Start: 42 @713 has 5 MA's), (50, 797), (56, 908), (62, 959), (76, 1127), (88, 1208), (90, 1214), (111, 1358), (119, 1388), (123, 1397),

Gene: Whabigail7\_2 Start: 652, Stop: 1413, Start Num: 36

Candidate Starts for Whabigail7\_2:

(Start: 36 @652 has 224 MA's), (Start: 42 @721 has 5 MA's), (44, 760), (50, 805), (55, 907), (56, 916), (62, 967), (76, 1135), (84, 1192), (88, 1216), (102, 1324), (123, 1399),

Gene: Whirlwind\_115 Start: 64830, Stop: 65531, Start Num: 30

Candidate Starts for Whirlwind\_115:

(20, 64806), (21, 64815), (26, 64821), (Start: 30 @64830 has 17 MA's), (Start: 38 @64896 has 2 MA's), (39, 64902), (48, 64983), (49, 64986), (50, 65001), (55, 65103), (57, 65115), (58, 65121), (62, 65163), (64, 65172), (65, 65181), (67, 65235), (74, 65316), (77, 65337), (79, 65358), (87, 65400), (96, 65469), (97, 65496), (98, 65508),

Gene: WideWale\_2 Start: 642, Stop: 1376, Start Num: 36

Candidate Starts for WideWale\_2:

(Start: 36 @642 has 224 MA's), (Start: 42 @711 has 5 MA's), (44, 750), (50, 795), (55, 897), (56, 906), (59, 927), (62, 957), (76, 1125), (94, 1245),

Gene: Wigglewigggle\_117 Start: 65017, Stop: 65706, Start Num: 29

Candidate Starts for Wigglewigggle\_117:

(Start: 29 @65017 has 56 MA's), (33, 65026), (Start: 38 @65083 has 2 MA's), (47, 65161), (53, 65242), (60, 65338), (62, 65350), (66, 65377), (67, 65422), (74, 65503), (75, 65509), (77, 65524), (84, 65575), (85, 65578), (89, 65602), (91, 65623), (92, 65629), (96, 65653),

Gene: Wiks\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Wiks\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Wilder\_117 Start: 64650, Stop: 65339, Start Num: 29

Candidate Starts for Wilder\_117:

(Start: 29 @64650 has 56 MA's), (33, 64659), (Start: 38 @64716 has 2 MA's), (47, 64794), (53, 64875), (60, 64971), (62, 64983), (66, 65010), (67, 65055), (74, 65136), (75, 65142), (77, 65157), (84, 65208), (85, 65211), (89, 65235), (91, 65256), (92, 65262), (96, 65286),

Gene: Winky\_117 Start: 65180, Stop: 65869, Start Num: 29

Candidate Starts for Winky\_117:

(Start: 29 @65180 has 56 MA's), (33, 65189), (Start: 38 @65246 has 2 MA's), (47, 65324), (49, 65336), (53, 65405), (60, 65501), (62, 65513), (66, 65540), (67, 65585), (74, 65666), (75, 65672), (77, 65687), (81, 65714), (84, 65738), (89, 65765), (91, 65786), (92, 65792), (96, 65816),

Gene: Wolpertinger\_1 Start: 355, Stop: 1107, Start Num: 31

Candidate Starts for Wolpertinger\_1:

(Start: 31 @355 has 13 MA's), (Start: 36 @367 has 224 MA's), (41, 430), (47, 493), (62, 682), (66, 709), (68, 760), (76, 850),

Gene: WunderPhul\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for WunderPhul\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Wyatt2\_112 Start: 62598, Stop: 63308, Start Num: 29

Candidate Starts for Wyatt2\_112:

(Start: 29 @62598 has 56 MA's), (37, 62652), (Start: 38 @62664 has 2 MA's), (39, 62670), (Start: 42 @62685 has 5 MA's), (47, 62745), (50, 62772), (53, 62826), (55, 62874), (57, 62886), (59, 62904), (62, 62934), (65, 62952), (67, 63006), (76, 63102), (77, 63108), (83, 63150), (85, 63162), (88, 63183), (92, 63213), (94, 63225), (96, 63240), (97, 63267),

Gene: XianYue\_1 Start: 507, Stop: 1262, Start Num: 36

Candidate Starts for XianYue\_1:

(Start: 36 @507 has 224 MA's), (Start: 42 @576 has 5 MA's), (50, 660), (55, 762), (56, 771), (62, 822), (94, 1110), (119, 1248),

Gene: Yecey3\_1 Start: 367, Stop: 1215, Start Num: 36

Candidate Starts for Yecey3\_1:

(Start: 31 @358 has 13 MA's), (Start: 36 @367 has 224 MA's), (47, 493), (50, 520), (56, 631), (62, 682), (68, 760), (76, 850), (84, 907), (103, 1048), (110, 1078), (130, 1141), (134, 1147), (143, 1195), (144, 1207), (145, 1210),

Gene: Yokurt\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Yokurt\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Zaka\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Zaka\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),

Gene: Zakai\_119 Start: 64890, Stop: 65579, Start Num: 29

Candidate Starts for Zakai\_119:

(Start: 29 @64890 has 56 MA's), (33, 64899), (Start: 38 @64956 has 2 MA's), (47, 65034), (49, 65046), (53, 65115), (60, 65211), (62, 65223), (66, 65250), (67, 65295), (74, 65376), (75, 65382), (77, 65397), (81, 65424), (84, 65448), (89, 65475), (91, 65496), (92, 65502), (96, 65526),

Gene: Zaria\_114 Start: 62652, Stop: 63359, Start Num: 29

Candidate Starts for Zaria\_114:

(Start: 29 @62652 has 56 MA's), (37, 62706), (Start: 38 @62718 has 2 MA's), (39, 62724), (Start: 42 @62739 has 5 MA's), (44, 62778), (47, 62796), (50, 62823), (53, 62877), (55, 62925), (57, 62937), (59, 62955), (62, 62985), (65, 63003), (67, 63057), (71, 63078), (76, 63153), (77, 63159), (83, 63201), (85, 63213), (88, 63234), (92, 63264), (94, 63276), (96, 63291), (97, 63318),

Gene: ZhongYanYuan\_113 Start: 64388, Stop: 65080, Start Num: 29

Candidate Starts for ZhongYanYuan\_113:

(Start: 29 @64388 has 56 MA's), (33, 64397), (Start: 38 @64454 has 2 MA's), (39, 64460), (Start: 42 @64475 has 5 MA's), (47, 64532), (58, 64679), (62, 64721), (65, 64739), (68, 64799), (69, 64802), (74, 64874), (75, 64880), (76, 64889), (84, 64943), (85, 64946), (89, 64970), (90, 64973), (93, 65006), (94, 65009), (96, 65024),

Gene: Zimmer\_1 Start: 381, Stop: 1235, Start Num: 31

Candidate Starts for Zimmer\_1:

(Start: 31 @381 has 13 MA's), (Start: 38 @438 has 2 MA's), (50, 543), (62, 705), (76, 873), (83, 921), (99, 1050), (104, 1080), (130, 1167), (135, 1191), (139, 1215), (142, 1227),

Gene: Zulu\_1 Start: 418, Stop: 1176, Start Num: 36

Candidate Starts for Zulu\_1:

(Start: 36 @418 has 224 MA's), (Start: 42 @487 has 5 MA's), (50, 571), (52, 613), (56, 682), (59, 703), (62, 733), (76, 901), (88, 982),