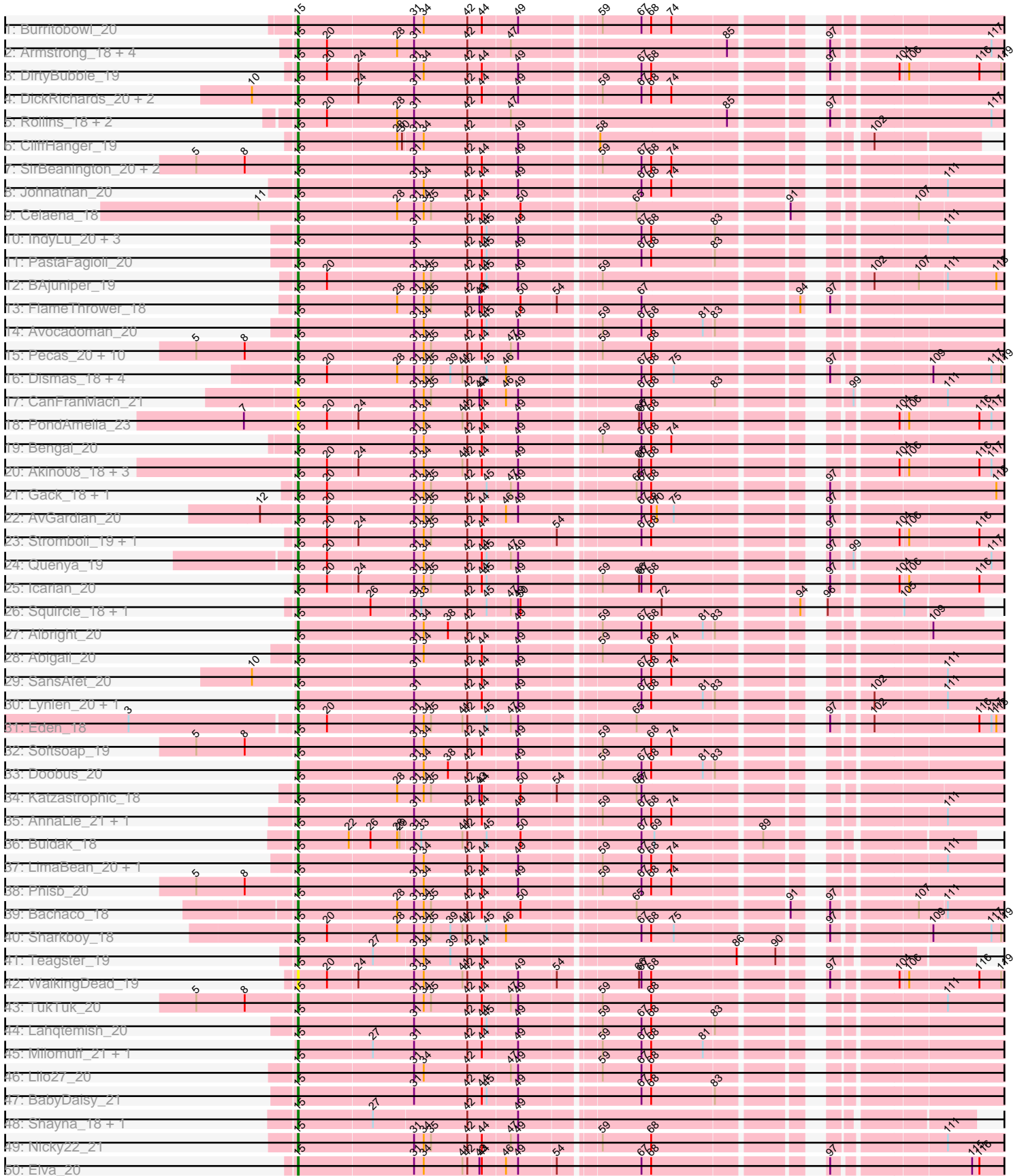
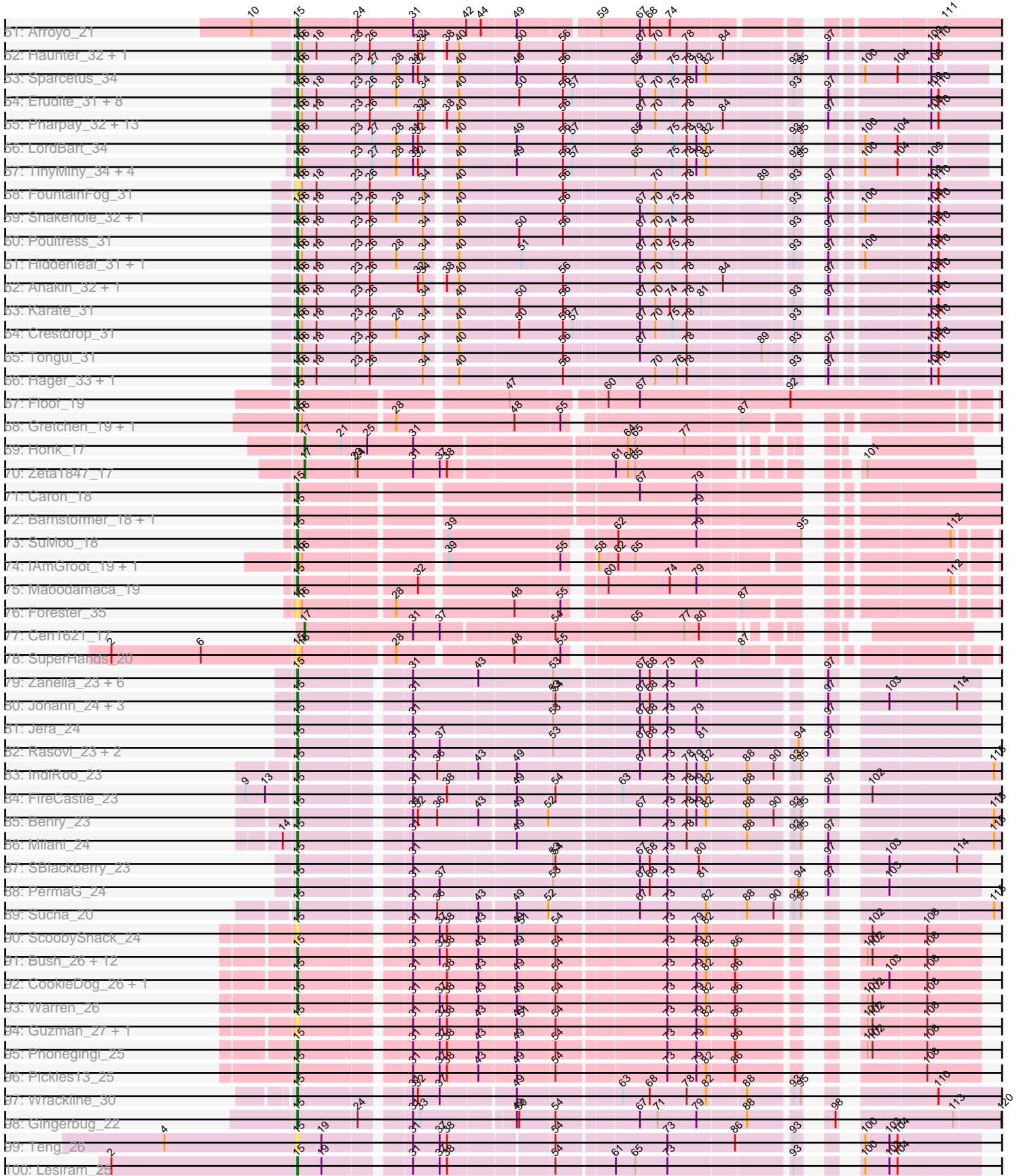


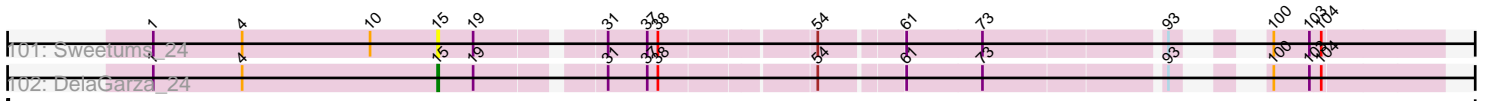
# Zoomed Pham 292533



# Zoomed Pham 292533



# Zoomed Pham 292533



Track	Position	Color
r01: Sweetums_24	1	Purple
r01: Sweetums_24	4	Orange
r01: Sweetums_24	10	Yellow
r01: Sweetums_24	15	Green
r01: Sweetums_24	19	Purple
r01: Sweetums_24	31	Purple
r01: Sweetums_24	35	Red
r01: Sweetums_24	54	Red
r01: Sweetums_24	61	Purple
r01: Sweetums_24	73	Purple
r01: Sweetums_24	93	Blue
r01: Sweetums_24	100	Orange
r01: Sweetums_24	104	Red
r01: Sweetums_24	108	Red
r02: DelaGarza_24	1	Purple
r02: DelaGarza_24	4	Orange
r02: DelaGarza_24	10	Yellow
r02: DelaGarza_24	15	Green
r02: DelaGarza_24	19	Purple
r02: DelaGarza_24	31	Purple
r02: DelaGarza_24	35	Red
r02: DelaGarza_24	54	Red
r02: DelaGarza_24	61	Purple
r02: DelaGarza_24	73	Purple
r02: DelaGarza_24	93	Blue
r02: DelaGarza_24	100	Orange
r02: DelaGarza_24	104	Red
r02: DelaGarza_24	108	Red

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 292533 Report

This analysis was run 04/18/26 on database version 643.

Pham number 292533 has 198 members, 31 are drafts.

Phages represented in each track:

- Track 1 : Burritobowl\_20
- Track 2 : Armstrong\_18, Coltrane\_18, Clayda5\_18, Brahms\_18, Skylord\_18
- Track 3 : DirtyBubble\_19
- Track 4 : DickRichards\_20, PhigPhack\_21, CroZenni\_20
- Track 5 : Rollins\_18, Bernstein\_18, Vitas\_18
- Track 6 : CliffHanger\_19
- Track 7 : SirBeanington\_20, Albedo\_20, BubbaBear\_20
- Track 8 : Johnathan\_20
- Track 9 : Celaena\_18
- Track 10 : IndyLu\_20, Didgeridoo\_21, Finalfrontier\_21, Kate33\_20
- Track 11 : PastaFagioli\_20
- Track 12 : BAjuniper\_19
- Track 13 : FlameThrower\_18
- Track 14 : Avocadoman\_20
- Track 15 : Pecas\_20, AylexOG\_21, Swervy\_20, Slay\_20, Jabb\_20, Eula\_20, MsUbiquitous\_20, CupcakePrincess\_20, SarBear\_20, Jovita\_20, QMacho\_21
- Track 16 : Dismas\_18, Kieran\_18, Rona\_18, ChiliPepper\_18, Kamdara\_18
- Track 17 : CanFranMach\_21
- Track 18 : PondAmelia\_23
- Track 19 : Bengal\_20
- Track 20 : Akino08\_18, Stoor\_19, SanaSana\_20, Loviatar\_19
- Track 21 : Gack\_18, Franklin22\_19
- Track 22 : AvGardian\_20
- Track 23 : Stromboli\_19, BabyYoda\_19
- Track 24 : Quenya\_19
- Track 25 : Icarian\_20
- Track 26 : Squircle\_18, Olliecat\_18
- Track 27 : Albright\_20
- Track 28 : Abigail\_20
- Track 29 : SansAfet\_20
- Track 30 : Lynlen\_20, Kenzers\_20
- Track 31 : Eden\_18
- Track 32 : Softsoap\_19
- Track 33 : Doobus\_20
- Track 34 : Katzastrophic\_18
- Track 35 : AnnaLie\_21, BelmontSKP\_21
- Track 36 : Buldak\_18

- Track 37 : LimaBean\_20, Cashington\_20
- Track 38 : Phisb\_20
- Track 39 : Bachaco\_18
- Track 40 : Sharkboy\_18
- Track 41 : Teagster\_19
- Track 42 : WalkingDead\_19
- Track 43 : TukTuk\_20
- Track 44 : Lahqtemish\_20
- Track 45 : Milomuff\_21, Solea\_22
- Track 46 : Lilo27\_20
- Track 47 : BabyDaisy\_21
- Track 48 : Shayna\_18, SunnyD\_18
- Track 49 : Nicky22\_21
- Track 50 : Elva\_20
- Track 51 : Arroyo\_21
- Track 52 : Haunter\_32, Rachella\_32
- Track 53 : Sparcetus\_34
- Track 54 : Erudite\_31, JingleBells\_31, DannyDe\_31, SilentWarrior\_31, Aesir\_31, Dauntless\_31, Annapurna\_31, MortySmith\_30, JDawG\_31
- Track 55 : Pharpay\_32, Gilda\_32, CoolCookie\_32, Krampus\_32, AnnaSerena\_32, OhDear\_32, OverHedge\_32, PhunaPhoke\_32, Potty\_32, Artiphact\_32, Tedro\_32, Cybele\_32, Kate\_32, Neptune\_32
- Track 56 : LordBart\_34
- Track 57 : TinyMiny\_34, Ajin\_34, Kors\_34, Bramble\_34, RikSengupta\_34
- Track 58 : FountainFog\_31
- Track 59 : Snakehole\_32, FreddieHg\_31
- Track 60 : Poultruss\_31
- Track 61 : Hiddenleaf\_31, Chivey\_31
- Track 62 : Anakin\_32, NarutoRun\_32
- Track 63 : Karate\_31
- Track 64 : Crestdrop\_31
- Track 65 : Tongui\_31
- Track 66 : Hager\_33, Rie18\_32
- Track 67 : Floof\_19
- Track 68 : Gretchen\_19, Percival\_19
- Track 69 : Honk\_17
- Track 70 : Zeta1847\_17
- Track 71 : Caron\_18
- Track 72 : Barnstormer\_18, UtzChips\_18
- Track 73 : SuMoo\_18
- Track 74 : IAmGroot\_19, GardenState\_19
- Track 75 : Mabodamaca\_19
- Track 76 : Forester\_35
- Track 77 : Cen1621\_17
- Track 78 : SuperHands\_20
- Track 79 : Zanella\_23, Alove\_23, Labella\_25, TurboVicky\_23, Rootkit7\_23, AyoTeo\_25, Typher\_25
- Track 80 : Johann\_24, Cicada\_25, Olympi\_25, Goodman\_24
- Track 81 : Jera\_24
- Track 82 : Rasovi\_23, Linayshia\_23, Htur\_23
- Track 83 : IndiRoo\_23
- Track 84 : FireCastle\_23
- Track 85 : Benry\_23

- Track 86 : Milani\_24
- Track 87 : SBlackberry\_23
- Track 88 : PermaG\_24
- Track 89 : Sucha\_20
- Track 90 : ScoobySnack\_24
- Track 91 : Bush\_26, Antuna\_26, Blett\_26, Carrillo\_27, NCRodriguez\_27, Violeta\_27, Winchester007\_41, Jakelyne\_28, MenE\_26, Mariel\_29, Losacky\_27, Appa\_25, PhillyJawn\_26
- Track 92 : CookieDog\_26, Dropshot\_25
- Track 93 : Warren\_26
- Track 94 : Guzman\_27, Phingu\_28
- Track 95 : Phonegingi\_25
- Track 96 : Pickles13\_25
- Track 97 : Wrackline\_30
- Track 98 : Gingerbug\_22
- Track 99 : Teng\_26
- Track 100 : Lesiram\_25
- Track 101 : Sweetums\_24
- Track 102 : DelaGarza\_24

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

The start number called the most often in the published annotations is 15, it was called in 164 of the 167 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail\_20, Aesir\_31, Ajin\_34, Akino08\_18, Albedo\_20, Albright\_20, Alove\_23, Anakin\_32, AnnaLie\_21, AnnaSerena\_32, Annapurna\_31, Antuna\_26, Appa\_25, Armstrong\_18, Arroyo\_21, Artiphact\_32, AvGardian\_20, Avocadoman\_20, AylexOG\_21, AyoTeo\_25, BAjuniper\_19, BabyDaisy\_21, BabyYoda\_19, Bachaco\_18, Barnstormer\_18, BelmontSKP\_21, Bengal\_20, Benry\_23, Bernstein\_18, Blett\_26, Brahms\_18, Bramble\_34, BubbaBear\_20, Buldak\_18, Burritobowl\_20, Bush\_26, CanFranMach\_21, Caron\_18, Carrillo\_27, Cashington\_20, Celaena\_18, ChiliPepper\_18, Chivey\_31, Cicada\_25, Clayda5\_18, CliffHanger\_19, Coltrane\_18, CookieDog\_26, CoolCookie\_32, Crestdrop\_31, CroZenni\_20, CupcakePrincess\_20, Cybele\_32, DannyDe\_31, Dauntless\_31, DelaGarza\_24, DickRichards\_20, Didgeridoo\_21, DirtyBubble\_19, Dismas\_18, Doobus\_20, Dropshot\_25, Eden\_18, Elva\_20, Erudite\_31, Eula\_20, Finalfrontier\_21, FireCastle\_23, FlameThrower\_18, Floof\_19, Forester\_35, FountainFog\_31, Franklin22\_19, FreddieHg\_31, Gack\_18, GardenState\_19, Gilda\_32, Gingerbug\_22, Goodman\_24, Gretchen\_19, Guzman\_27, Hager\_33, Haunter\_32, Hiddenleaf\_31, Htur\_23, IAmGroot\_19, Icarian\_20, IndiRoo\_23, IndyLu\_20, JDawG\_31, Jabb\_20, Jakelyne\_28, Jera\_24, JingleBells\_31, Johann\_24, Johnathan\_20, Jovita\_20, Kamdara\_18, Karate\_31, Kate33\_20, Kate\_32, Katzastrophic\_18, Kenzers\_20, Kieran\_18, Kors\_34, Krampus\_32, Labella\_25, Lahqtemish\_20, Lesiram\_25, Lilo27\_20, LimaBean\_20, Linayshia\_23, LordBart\_34, Losacky\_27, Loviatar\_19, Lynlen\_20, Mabodamaca\_19, Mariel\_29, MenE\_26, Milani\_24, Milomuff\_21, MortySmith\_30, MsUbiquitous\_20, NCRodriguez\_27, NarutoRun\_32, Neptune\_32, Nicky22\_21, OhDear\_32, Olliecat\_18, Olympi\_25, OverHedge\_32, PastaFagioli\_20, Pecas\_20, Percival\_19, PermaG\_24, Pharpay\_32, PhigPhack\_21, PhillyJawn\_26,

Phingu\_28, Phisb\_20, Phonegingi\_25, PhunaPhoke\_32, Pickles13\_25, PondAmelia\_23, Potty\_32, Poultruss\_31, QMacho\_21, Quenya\_19, Rachella\_32, Rasovi\_23, Rie18\_32, RikSengupta\_34, Rollins\_18, Rona\_18, Rootkit7\_23, SBlackberry\_23, SanaSana\_20, SansAfet\_20, SarBear\_20, ScoobySnack\_24, Sharkboy\_18, Shayna\_18, SilentWarrior\_31, SirBeanington\_20, Skylord\_18, Slay\_20, Snakehole\_32, Softsoap\_19, Solea\_22, Sparcetus\_34, Squircle\_18, Stoor\_19, Stromboli\_19, SuMoo\_18, Sucha\_20, SunnyD\_18, SuperHands\_20, Sweetums\_24, Swervy\_20, Teagster\_19, Tedro\_32, Teng\_26, TinyMiny\_34, Tongui\_31, TukTuk\_20, TurboVicky\_23, Typher\_25, UtzChips\_18, Violeta\_27, Vitas\_18, WalkingDead\_19, Warren\_26, Winchester007\_41, Wrackline\_30, Zanella\_23,

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

- 

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

- Cen1621\_17, Honk\_17, Zeta1847\_17,

### Summary by start number:

Start 15:

- Found in 195 of 198 ( 98.5% ) of genes in pham
- Manual Annotations of this start: 164 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail\_20 (EB), Aesir\_31 (EF), Ajin\_34 (EF), Akino08\_18 (EB), Albedo\_20 (EB), Albright\_20 (EB), Alove\_23 (EJ), Anakin\_32 (EF), AnnaLie\_21 (EB), AnnaSerena\_32 (EF), Annapurna\_31 (EF), Antuna\_26 (GA), Appa\_25 (GA), Armstrong\_18 (EB), Arroyo\_21 (EB), Artiphact\_32 (EF), AvGuardian\_20 (EB), Avocadoman\_20 (EB), AylexOG\_21 (EB), AyoTeo\_25 (EJ), BAjuniper\_19 (EB), BabyDaisy\_21 (EB), BabyYoda\_19 (EB), Bachaco\_18 (EB), Barnstormer\_18 (EH), BelmontSKP\_21 (EB), Bengal\_20 (EB), Benry\_23 (EJ), Bernstein\_18 (EB), Blett\_26 (GA), Brahms\_18 (EB), Bramble\_34 (EF), BubbaBear\_20 (EB), Buldak\_18 (EB), Burritobowl\_20 (EB), Bush\_26 (GA), CanFranMach\_21 (EB), Caron\_18 (EH), Carrillo\_27 (GA), Cashington\_20 (EB), Celaena\_18 (EB), ChiliPepper\_18 (EB), Chivey\_31 (EF), Cicada\_25 (EJ), Clayda5\_18 (EB), CliffHanger\_19 (EB), Coltrane\_18 (EB), CookieDog\_26 (GA), CoolCookie\_32 (EF), Crestdrop\_31 (EF), CroZenni\_20 (EB), CupcakePrincess\_20 (EB), Cybele\_32 (EF), DannyDe\_31 (EF), Dauntless\_31 (EF), DelaGarza\_24 (GF), DickRichards\_20 (EB), Didgeridoo\_21 (EB), DirtyBubble\_19 (EB), Dismas\_18 (EB), Doobus\_20 (EB), Dropshot\_25 (GA), Eden\_18 (EB), Elva\_20 (EB), Erudite\_31 (EF), Eula\_20 (EB), Finalfrontier\_21 (EB), FireCastle\_23 (EJ), FlameThrower\_18 (EB), Floof\_19 (EH), Forester\_35 (EH), FountainFog\_31 (EF), Franklin22\_19 (EB), FreddieHg\_31 (EF), Gack\_18 (EB), GardenState\_19 (EH), Gilda\_32 (EF), Gingerbug\_22 (GF), Goodman\_24 (EJ), Gretchen\_19 (EH), Guzman\_27 (GA), Hager\_33 (EF), Haunter\_32 (EF), Hiddenleaf\_31 (EF), Htur\_23 (EJ), IAmGroot\_19 (EH), Icarian\_20 (EB), IndiRoo\_23 (EJ), IndyLu\_20 (EB), JDawG\_31 (EF), Jabb\_20 (EB), Jakelyne\_28 (GA), Jera\_24 (EJ), JingleBells\_31 (EF), Johann\_24 (EJ), Johnathan\_20 (EB), Jovita\_20 (EB), Kamdara\_18 (EB), Karate\_31 (EF), Kate33\_20 (EB), Kate\_32 (EF), Katzastrophic\_18 (EB), Kenzers\_20 (EB), Kieran\_18 (EB), Kors\_34 (EF), Krampus\_32 (EF), Labella\_25 (EJ), Lahqtemish\_20 (EB), Lesiram\_25 (GF), Lilo27\_20 (EB), LimaBean\_20 (EB), Linayshia\_23 (EJ), LordBart\_34 (EF), Losacky\_27 (GA), Loviatar\_19 (EB), Lynien\_20 (EB), Mabodamaca\_19 (EH), Mariel\_29 (GA), MenE\_26 (GA), Milani\_24 (EJ), Milomuff\_21 (EB), MortySmith\_30 (EF), MsUbiquitous\_20 (EB), NCRodriguez\_27 (GA), NarutoRun\_32 (EF),

Neptune\_32 (EF), Nicky22\_21 (EB), OhDear\_32 (EF), Olliecat\_18 (EB), Olympi\_25 (EJ), OverHedge\_32 (EF), PastaFagioli\_20 (EB), Pecas\_20 (EB), Percival\_19 (EH), PermaG\_24 (EJ), Pharpay\_32 (EF), PhigPhack\_21 (EB), PhillyJawn\_26 (GA), Phingu\_28 (GA), Phisb\_20 (EB), Phonegingi\_25 (GA), PhunaPhoke\_32 (EF), Pickles13\_25 (GA), PondAmelia\_23 (EB), Potty\_32 (EF), Poultruss\_31 (EF), QMacho\_21 (EB), Quenya\_19 (EB), Rachella\_32 (EF), Rasovi\_23 (EJ), Rie18\_32 (EF), RikSengupta\_34 (EF), Rollins\_18 (EB), Rona\_18 (EB), Rootkit7\_23 (EJ), SBlackberry\_23 (EJ), SanaSana\_20 (EB), SansAfet\_20 (EB), SarBear\_20 (EB), ScoobySnack\_24 (GA), Sharkboy\_18 (EB), Shayna\_18 (EB), SilentWarrior\_31 (EF), SirBeanington\_20 (EB), Skylord\_18 (EB), Slay\_20 (EB), Snakehole\_32 (EF), Softsoap\_19 (EB), Solea\_22 (EB), Sparcetus\_34 (EF), Squircle\_18 (EB), Stoor\_19 (EB), Stromboli\_19 (EB), SuMoo\_18 (EH), Sucha\_20 (EJ), SunnyD\_18 (EB), SuperHands\_20 (EH), Sweetums\_24 (GF), Swervy\_20 (EB), Teagster\_19 (EB), Tedro\_32 (EF), Teng\_26 (GF), TinyMiny\_34 (EF), Tongui\_31 (EF), TukTuk\_20 (EB), TurboVicky\_23 (EJ), Typher\_25 (EJ), UtzChips\_18 (EH), Violeta\_27 (GA), Vitas\_18 (EB), WalkingDead\_19 (EB), Warren\_26 (GA), Winchester007\_41 (GA), Wrackline\_30 (GF), Zanella\_23 (EJ),

Start 17:

- Found in 3 of 198 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 3 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cen1621\_17 (EH), Honk\_17 (EH), Zeta1847\_17 (EH),

### **Summary by clusters:**

There are 6 clusters represented in this pham: EH, EJ, EF, EB, GF, GA,

Info for manual annotations of cluster EB:

- Start number 15 was manually annotated 80 times for cluster EB.

Info for manual annotations of cluster EF:

- Start number 15 was manually annotated 41 times for cluster EF.

Info for manual annotations of cluster EH:

- Start number 15 was manually annotated 10 times for cluster EH.
- Start number 17 was manually annotated 3 times for cluster EH.

Info for manual annotations of cluster EJ:

- Start number 15 was manually annotated 18 times for cluster EJ.

Info for manual annotations of cluster GA:

- Start number 15 was manually annotated 11 times for cluster GA.

Info for manual annotations of cluster GF:

- Start number 15 was manually annotated 4 times for cluster GF.

### **Gene Information:**

Gene: Abigail\_20 Start: 16253, Stop: 17341, Start Num: 15

Candidate Starts for Abigail\_20:

(Start: 15 @16253 has 164 MA's), (31, 16394), (34, 16406), (42, 16460), (44, 16478), (49, 16520), (59, 16607), (68, 16667), (74, 16691), (129, 17204),

Gene: Aesir\_31 Start: 20242, Stop: 21186, Start Num: 15

Candidate Starts for Aesir\_31:

(Start: 15 @20242 has 164 MA's), (16, 20248), (18, 20266), (23, 20314), (26, 20332), (28, 20365), (34, 20398), (40, 20431), (50, 20503), (56, 20557), (57, 20569), (67, 20647), (70, 20665), (75, 20686), (78, 20704), (93, 20821), (97, 20836), (109, 20941), (110, 20950),

Gene: Ajin\_34 Start: 20730, Stop: 21491, Start Num: 15

Candidate Starts for Ajin\_34:

(Start: 15 @20730 has 164 MA's), (16, 20736), (23, 20802), (27, 20823), (28, 20853), (31, 20874), (32, 20880), (40, 20919), (49, 20988), (56, 21045), (57, 21057), (65, 21132), (75, 21177), (78, 21195), (79, 21207), (82, 21219), (93, 21315), (95, 21324), (100, 21360), (104, 21399), (109, 21432),

Gene: Akino08\_18 Start: 16044, Stop: 16880, Start Num: 15

Candidate Starts for Akino08\_18:

(Start: 15 @16044 has 164 MA's), (20, 16080), (24, 16116), (31, 16185), (34, 16197), (41, 16245), (42, 16251), (44, 16269), (49, 16311), (66, 16443), (67, 16446), (68, 16458), (104, 16701), (106, 16710), (116, 16794), (117, 16809),

Gene: Albedo\_20 Start: 16124, Stop: 17212, Start Num: 15

Candidate Starts for Albedo\_20:

(5, 16004), (8, 16064), (Start: 15 @16124 has 164 MA's), (31, 16265), (42, 16331), (44, 16349), (49, 16391), (59, 16478), (67, 16526), (68, 16538), (74, 16562),

Gene: Albright\_20 Start: 16011, Stop: 17099, Start Num: 15

Candidate Starts for Albright\_20:

(Start: 15 @16011 has 164 MA's), (31, 16152), (34, 16164), (38, 16194), (42, 16218), (49, 16278), (59, 16365), (67, 16413), (68, 16425), (81, 16488), (83, 16500), (109, 16707), (129, 16962),

Gene: Alove\_23 Start: 18450, Stop: 19181, Start Num: 15

Candidate Starts for Alove\_23:

(Start: 15 @18450 has 164 MA's), (31, 18573), (43, 18651), (53, 18738), (67, 18834), (68, 18846), (73, 18867), (79, 18903), (97, 19026),

Gene: Anakin\_32 Start: 20500, Stop: 21444, Start Num: 15

Candidate Starts for Anakin\_32:

(Start: 15 @20500 has 164 MA's), (16, 20506), (18, 20524), (23, 20572), (26, 20590), (32, 20650), (34, 20656), (38, 20674), (40, 20689), (56, 20815), (67, 20905), (70, 20923), (78, 20962), (84, 21004), (97, 21094), (109, 21199), (110, 21208), (124, 21319),

Gene: AnnaLie\_21 Start: 16440, Stop: 17528, Start Num: 15

Candidate Starts for AnnaLie\_21:

(Start: 15 @16440 has 164 MA's), (31, 16581), (42, 16647), (44, 16665), (49, 16707), (59, 16794), (67, 16842), (68, 16854), (74, 16878), (111, 17154), (130, 17409),

Gene: AnnaSerena\_32 Start: 20511, Stop: 21455, Start Num: 15

Candidate Starts for AnnaSerena\_32:

(Start: 15 @20511 has 164 MA's), (16, 20517), (18, 20535), (23, 20583), (26, 20601), (32, 20661), (34, 20667), (38, 20685), (40, 20700), (56, 20826), (67, 20916), (70, 20934), (78, 20973), (84, 21015), (97, 21105), (109, 21210), (110, 21219),

Gene: Annapurna\_31 Start: 19704, Stop: 20648, Start Num: 15

Candidate Starts for Annapurna\_31:

(Start: 15 @19704 has 164 MA's), (16, 19710), (18, 19728), (23, 19776), (26, 19794), (28, 19827), (34, 19860), (40, 19893), (50, 19965), (56, 20019), (57, 20031), (67, 20109), (70, 20127), (75, 20148), (78, 20166), (93, 20283), (97, 20298), (109, 20403), (110, 20412),

Gene: Antuna\_26 Start: 16757, Stop: 17491, Start Num: 15

Candidate Starts for Antuna\_26:

(Start: 15 @16757 has 164 MA's), (31, 16880), (37, 16913), (38, 16922), (43, 16961), (49, 17006), (54, 17051), (73, 17177), (79, 17213), (82, 17225), (86, 17258), (101, 17357), (102, 17363), (108, 17426),

Gene: Appa\_25 Start: 16619, Stop: 17353, Start Num: 15

Candidate Starts for Appa\_25:

(Start: 15 @16619 has 164 MA's), (31, 16742), (37, 16775), (38, 16784), (43, 16823), (49, 16868), (54, 16913), (73, 17039), (79, 17075), (82, 17087), (86, 17120), (101, 17219), (102, 17225), (108, 17288),

Gene: Armstrong\_18 Start: 14212, Stop: 15048, Start Num: 15

Candidate Starts for Armstrong\_18:

(Start: 15 @14212 has 164 MA's), (20, 14248), (28, 14332), (31, 14353), (42, 14419), (47, 14470), (85, 14716), (97, 14800), (117, 14980),

Gene: Arroyo\_21 Start: 16641, Stop: 17729, Start Num: 15

Candidate Starts for Arroyo\_21:

(10, 16590), (Start: 15 @16641 has 164 MA's), (24, 16713), (31, 16782), (42, 16848), (44, 16866), (49, 16908), (59, 16995), (67, 17043), (68, 17055), (74, 17079), (111, 17355),

Gene: Artiphact\_32 Start: 20501, Stop: 21445, Start Num: 15

Candidate Starts for Artiphact\_32:

(Start: 15 @20501 has 164 MA's), (16, 20507), (18, 20525), (23, 20573), (26, 20591), (32, 20651), (34, 20657), (38, 20675), (40, 20690), (56, 20816), (67, 20906), (70, 20924), (78, 20963), (84, 21005), (97, 21095), (109, 21200), (110, 21209),

Gene: AvGardian\_20 Start: 15660, Stop: 16493, Start Num: 15

Candidate Starts for AvGardian\_20:

(12, 15621), (Start: 15 @15660 has 164 MA's), (20, 15696), (31, 15801), (34, 15813), (35, 15822), (42, 15867), (44, 15885), (46, 15912), (49, 15927), (67, 16062), (68, 16074), (70, 16080), (75, 16101), (97, 16248),

Gene: Avocadoman\_20 Start: 16196, Stop: 17284, Start Num: 15

Candidate Starts for Avocadoman\_20:

(Start: 15 @16196 has 164 MA's), (31, 16337), (34, 16349), (42, 16403), (44, 16421), (45, 16427), (49, 16463), (59, 16550), (67, 16598), (68, 16610), (81, 16673), (83, 16685),

Gene: AylexOG\_21 Start: 16461, Stop: 17549, Start Num: 15

Candidate Starts for AylexOG\_21:

(5, 16341), (8, 16401), (Start: 15 @16461 has 164 MA's), (31, 16602), (34, 16614), (35, 16623), (42, 16668), (44, 16686), (47, 16719), (49, 16728), (59, 16815), (68, 16875),

Gene: AyoTeo\_25 Start: 18576, Stop: 19307, Start Num: 15

Candidate Starts for AyoTeo\_25:

(Start: 15 @18576 has 164 MA's), (31, 18699), (43, 18777), (53, 18864), (67, 18960), (68, 18972), (73, 18993), (79, 19029), (97, 19152),

Gene: BAjuniper\_19 Start: 16149, Stop: 16985, Start Num: 15

Candidate Starts for BAjuniper\_19:

(Start: 15 @16149 has 164 MA's), (20, 16185), (31, 16290), (34, 16302), (35, 16311), (42, 16356), (44, 16374), (45, 16380), (49, 16416), (59, 16503), (102, 16776), (107, 16827), (111, 16860), (118, 16920),

Gene: BabyDaisy\_21 Start: 16253, Stop: 17341, Start Num: 15

Candidate Starts for BabyDaisy\_21:

(Start: 15 @16253 has 164 MA's), (31, 16394), (42, 16460), (44, 16478), (45, 16484), (49, 16520), (67, 16655), (68, 16667), (83, 16742), (121, 17051), (130, 17222),

Gene: BabyYoda\_19 Start: 16136, Stop: 16969, Start Num: 15

Candidate Starts for BabyYoda\_19:

(Start: 15 @16136 has 164 MA's), (20, 16172), (24, 16208), (31, 16277), (34, 16289), (35, 16298), (42, 16343), (44, 16361), (54, 16448), (67, 16538), (68, 16550), (97, 16724), (104, 16793), (106, 16802), (116, 16886),

Gene: Bachaco\_18 Start: 16153, Stop: 16986, Start Num: 15

Candidate Starts for Bachaco\_18:

(Start: 15 @16153 has 164 MA's), (28, 16273), (31, 16294), (34, 16306), (35, 16315), (42, 16360), (44, 16378), (50, 16423), (65, 16549), (91, 16720), (97, 16741), (107, 16831), (111, 16864), (123, 16957),

Gene: Barnstormer\_18 Start: 15958, Stop: 16890, Start Num: 15

Candidate Starts for Barnstormer\_18:

(Start: 15 @15958 has 164 MA's), (79, 16414),

Gene: BelmontSKP\_21 Start: 16440, Stop: 17528, Start Num: 15

Candidate Starts for BelmontSKP\_21:

(Start: 15 @16440 has 164 MA's), (31, 16581), (42, 16647), (44, 16665), (49, 16707), (59, 16794), (67, 16842), (68, 16854), (74, 16878), (111, 17154), (130, 17409),

Gene: Bengal\_20 Start: 16028, Stop: 17116, Start Num: 15

Candidate Starts for Bengal\_20:

(Start: 15 @16028 has 164 MA's), (31, 16169), (34, 16181), (42, 16235), (44, 16253), (49, 16295), (59, 16382), (67, 16430), (68, 16442), (74, 16466),

Gene: Benry\_23 Start: 16825, Stop: 17892, Start Num: 15

Candidate Starts for Benry\_23:

(Start: 15 @16825 has 164 MA's), (31, 16948), (32, 16954), (36, 16978), (43, 17026), (49, 17068), (52, 17107), (67, 17206), (73, 17239), (78, 17263), (79, 17275), (82, 17287), (88, 17332), (90, 17365), (93, 17380), (95, 17389), (118, 17563), (123, 17590), (127, 17659), (131, 17785), (134, 17824),

Gene: Bernstein\_18 Start: 14243, Stop: 15079, Start Num: 15

Candidate Starts for Bernstein\_18:

(Start: 15 @14243 has 164 MA's), (20, 14279), (28, 14363), (31, 14384), (42, 14450), (47, 14501), (85, 14747), (97, 14831), (117, 15011),

Gene: Blett\_26 Start: 16772, Stop: 17506, Start Num: 15

Candidate Starts for Blett\_26:

(Start: 15 @16772 has 164 MA's), (31, 16895), (37, 16928), (38, 16937), (43, 16976), (49, 17021), (54, 17066), (73, 17192), (79, 17228), (82, 17240), (86, 17273), (101, 17372), (102, 17378), (108, 17441),

Gene: Brahms\_18 Start: 14188, Stop: 15024, Start Num: 15

Candidate Starts for Brahms\_18:

(Start: 15 @14188 has 164 MA's), (20, 14224), (28, 14308), (31, 14329), (42, 14395), (47, 14446), (85, 14692), (97, 14776), (117, 14956),

Gene: Bramble\_34 Start: 20696, Stop: 21457, Start Num: 15

Candidate Starts for Bramble\_34:

(Start: 15 @20696 has 164 MA's), (16, 20702), (23, 20768), (27, 20789), (28, 20819), (31, 20840), (32, 20846), (40, 20885), (49, 20954), (56, 21011), (57, 21023), (65, 21098), (75, 21143), (78, 21161), (79, 21173), (82, 21185), (93, 21281), (95, 21290), (100, 21326), (104, 21365), (109, 21398),

Gene: BubbaBear\_20 Start: 16124, Stop: 17212, Start Num: 15

Candidate Starts for BubbaBear\_20:

(5, 16004), (8, 16064), (Start: 15 @16124 has 164 MA's), (31, 16265), (42, 16331), (44, 16349), (49, 16391), (59, 16478), (67, 16526), (68, 16538), (74, 16562),

Gene: Buldak\_18 Start: 15602, Stop: 16342, Start Num: 15

Candidate Starts for Buldak\_18:

(Start: 15 @15602 has 164 MA's), (22, 15665), (26, 15689), (28, 15722), (29, 15725), (31, 15740), (33, 15749), (41, 15800), (42, 15806), (45, 15830), (50, 15869), (67, 16001), (69, 16016), (89, 16139),

Gene: Burritobowl\_20 Start: 16196, Stop: 17284, Start Num: 15

Candidate Starts for Burritobowl\_20:

(Start: 15 @16196 has 164 MA's), (31, 16337), (34, 16349), (42, 16403), (44, 16421), (49, 16463), (59, 16550), (67, 16598), (68, 16610), (74, 16634), (122, 17000),

Gene: Bush\_26 Start: 16747, Stop: 17481, Start Num: 15

Candidate Starts for Bush\_26:

(Start: 15 @16747 has 164 MA's), (31, 16870), (37, 16903), (38, 16912), (43, 16951), (49, 16996), (54, 17041), (73, 17167), (79, 17203), (82, 17215), (86, 17248), (101, 17347), (102, 17353), (108, 17416),

Gene: CanFranMach\_21 Start: 16125, Stop: 17216, Start Num: 15

Candidate Starts for CanFranMach\_21:

(Start: 15 @16125 has 164 MA's), (31, 16266), (34, 16278), (35, 16287), (42, 16332), (43, 16347), (44, 16350), (46, 16377), (49, 16392), (67, 16527), (68, 16539), (83, 16614), (99, 16737), (111, 16839),

Gene: Caron\_18 Start: 15341, Stop: 16273, Start Num: 15

Candidate Starts for Caron\_18:

(Start: 15 @15341 has 164 MA's), (67, 15728), (79, 15797),

Gene: Carrillo\_27 Start: 16726, Stop: 17460, Start Num: 15

Candidate Starts for Carrillo\_27:

(Start: 15 @16726 has 164 MA's), (31, 16849), (37, 16882), (38, 16891), (43, 16930), (49, 16975), (54, 17020), (73, 17146), (79, 17182), (82, 17194), (86, 17227), (101, 17326), (102, 17332), (108, 17395),

Gene: Cashington\_20 Start: 16045, Stop: 17133, Start Num: 15

Candidate Starts for Cashington\_20:

(Start: 15 @16045 has 164 MA's), (31, 16186), (34, 16198), (42, 16252), (44, 16270), (49, 16312), (59, 16399), (67, 16447), (68, 16459), (74, 16483), (111, 16759),

Gene: Celaena\_18 Start: 16101, Stop: 16934, Start Num: 15

Candidate Starts for Celaena\_18:

(11, 16056), (Start: 15 @16101 has 164 MA's), (28, 16221), (31, 16242), (34, 16254), (35, 16263), (42, 16308), (44, 16326), (50, 16371), (65, 16497), (91, 16668), (107, 16779),

Gene: Cen1621\_17 Start: 14753, Stop: 15457, Start Num: 17

Candidate Starts for Cen1621\_17:

(Start: 17 @14753 has 3 MA's), (31, 14885), (37, 14918), (54, 15053), (65, 15149), (77, 15209), (80, 15227),

Gene: ChiliPepper\_18 Start: 15687, Stop: 16520, Start Num: 15

Candidate Starts for ChiliPepper\_18:

(Start: 15 @15687 has 164 MA's), (20, 15723), (28, 15807), (31, 15828), (34, 15840), (35, 15849), (39, 15873), (41, 15888), (42, 15894), (45, 15918), (46, 15939), (67, 16089), (68, 16101), (75, 16128), (97, 16275), (109, 16380), (117, 16452), (119, 16464),

Gene: Chivey\_31 Start: 19653, Stop: 20597, Start Num: 15

Candidate Starts for Chivey\_31:

(Start: 15 @19653 has 164 MA's), (16, 19659), (18, 19677), (23, 19725), (26, 19743), (28, 19776), (34, 19809), (40, 19842), (51, 19917), (67, 20058), (70, 20076), (75, 20097), (78, 20115), (93, 20232), (97, 20247), (100, 20277), (109, 20352), (110, 20361),

Gene: Cicada\_25 Start: 18670, Stop: 19401, Start Num: 15

Candidate Starts for Cicada\_25:

(Start: 15 @18670 has 164 MA's), (31, 18793), (53, 18958), (54, 18961), (67, 19054), (68, 19066), (73, 19087), (97, 19246), (103, 19294), (114, 19372),

Gene: Clayda5\_18 Start: 14218, Stop: 15054, Start Num: 15

Candidate Starts for Clayda5\_18:

(Start: 15 @14218 has 164 MA's), (20, 14254), (28, 14338), (31, 14359), (42, 14425), (47, 14476), (85, 14722), (97, 14806), (117, 14986),

Gene: CliffHanger\_19 Start: 15208, Stop: 15954, Start Num: 15

Candidate Starts for CliffHanger\_19:

(Start: 15 @15208 has 164 MA's), (28, 15328), (30, 15334), (31, 15346), (34, 15358), (42, 15412), (49, 15472), (58, 15556), (102, 15832),

Gene: Coltrane\_18 Start: 14188, Stop: 15024, Start Num: 15

Candidate Starts for Coltrane\_18:

(Start: 15 @14188 has 164 MA's), (20, 14224), (28, 14308), (31, 14329), (42, 14395), (47, 14446), (85, 14692), (97, 14776), (117, 14956),

Gene: CookieDog\_26 Start: 16747, Stop: 17481, Start Num: 15

Candidate Starts for CookieDog\_26:

(Start: 15 @16747 has 164 MA's), (31, 16870), (38, 16912), (43, 16951), (49, 16996), (54, 17041), (73, 17167), (79, 17203), (82, 17215), (86, 17248), (103, 17374), (108, 17416),

Gene: CoolCookie\_32 Start: 20507, Stop: 21451, Start Num: 15

Candidate Starts for CoolCookie\_32:

(Start: 15 @20507 has 164 MA's), (16, 20513), (18, 20531), (23, 20579), (26, 20597), (32, 20657), (34, 20663), (38, 20681), (40, 20696), (56, 20822), (67, 20912), (70, 20930), (78, 20969), (84, 21011), (97, 21101), (109, 21206), (110, 21215),

Gene: Crestdrop\_31 Start: 19567, Stop: 20511, Start Num: 15

Candidate Starts for Crestdrop\_31:

(Start: 15 @19567 has 164 MA's), (16, 19573), (18, 19591), (23, 19639), (26, 19657), (28, 19690), (34, 19723), (40, 19756), (50, 19828), (56, 19882), (57, 19894), (67, 19972), (70, 19990), (75, 20011), (78,

20029), (93, 20146), (109, 20266), (110, 20275),

Gene: CroZenni\_20 Start: 16031, Stop: 17119, Start Num: 15

Candidate Starts for CroZenni\_20:

(10, 15980), (Start: 15 @16031 has 164 MA's), (24, 16103), (31, 16172), (42, 16238), (44, 16256), (49, 16298), (59, 16385), (67, 16433), (68, 16445), (74, 16469),

Gene: CupcakePrincess\_20 Start: 16151, Stop: 17239, Start Num: 15

Candidate Starts for CupcakePrincess\_20:

(5, 16031), (8, 16091), (Start: 15 @16151 has 164 MA's), (31, 16292), (34, 16304), (35, 16313), (42, 16358), (44, 16376), (47, 16409), (49, 16418), (59, 16505), (68, 16565),

Gene: Cybele\_32 Start: 20477, Stop: 21421, Start Num: 15

Candidate Starts for Cybele\_32:

(Start: 15 @20477 has 164 MA's), (16, 20483), (18, 20501), (23, 20549), (26, 20567), (32, 20627), (34, 20633), (38, 20651), (40, 20666), (56, 20792), (67, 20882), (70, 20900), (78, 20939), (84, 20981), (97, 21071), (109, 21176), (110, 21185),

Gene: DannyDe\_31 Start: 19650, Stop: 20594, Start Num: 15

Candidate Starts for DannyDe\_31:

(Start: 15 @19650 has 164 MA's), (16, 19656), (18, 19674), (23, 19722), (26, 19740), (28, 19773), (34, 19806), (40, 19839), (50, 19911), (56, 19965), (57, 19977), (67, 20055), (70, 20073), (75, 20094), (78, 20112), (93, 20229), (97, 20244), (109, 20349), (110, 20358),

Gene: Dauntless\_31 Start: 20210, Stop: 21154, Start Num: 15

Candidate Starts for Dauntless\_31:

(Start: 15 @20210 has 164 MA's), (16, 20216), (18, 20234), (23, 20282), (26, 20300), (28, 20333), (34, 20366), (40, 20399), (50, 20471), (56, 20525), (57, 20537), (67, 20615), (70, 20633), (75, 20654), (78, 20672), (93, 20789), (97, 20804), (109, 20909), (110, 20918),

Gene: DelaGarza\_24 Start: 17110, Stop: 17832, Start Num: 15

Candidate Starts for DelaGarza\_24:

(1, 16870), (4, 16945), (Start: 15 @17110 has 164 MA's), (19, 17140), (31, 17233), (37, 17266), (38, 17275), (54, 17395), (61, 17458), (73, 17521), (93, 17662), (100, 17695), (103, 17725), (104, 17734),

Gene: DickRichards\_20 Start: 16526, Stop: 17614, Start Num: 15

Candidate Starts for DickRichards\_20:

(10, 16475), (Start: 15 @16526 has 164 MA's), (24, 16598), (31, 16667), (42, 16733), (44, 16751), (49, 16793), (59, 16880), (67, 16928), (68, 16940), (74, 16964),

Gene: Didgeridoo\_21 Start: 16255, Stop: 17343, Start Num: 15

Candidate Starts for Didgeridoo\_21:

(Start: 15 @16255 has 164 MA's), (31, 16396), (42, 16462), (44, 16480), (45, 16486), (49, 16522), (67, 16657), (68, 16669), (83, 16744), (111, 16969), (121, 17053), (130, 17224),

Gene: DirtyBubble\_19 Start: 16094, Stop: 16927, Start Num: 15

Candidate Starts for DirtyBubble\_19:

(Start: 15 @16094 has 164 MA's), (20, 16130), (24, 16166), (31, 16235), (34, 16247), (42, 16301), (44, 16319), (49, 16361), (67, 16496), (68, 16508), (97, 16682), (104, 16751), (106, 16760), (116, 16844), (119, 16871),

Gene: Dismas\_18 Start: 15687, Stop: 16520, Start Num: 15

Candidate Starts for Dismas\_18:

(Start: 15 @15687 has 164 MA's), (20, 15723), (28, 15807), (31, 15828), (34, 15840), (35, 15849), (39, 15873), (41, 15888), (42, 15894), (45, 15918), (46, 15939), (67, 16089), (68, 16101), (75, 16128), (97, 16275), (109, 16380), (117, 16452), (119, 16464),

Gene: Doobus\_20 Start: 16362, Stop: 17450, Start Num: 15

Candidate Starts for Doobus\_20:

(Start: 15 @16362 has 164 MA's), (31, 16503), (34, 16515), (38, 16545), (42, 16569), (49, 16629), (59, 16716), (67, 16764), (68, 16776), (81, 16839), (83, 16851), (129, 17313),

Gene: Dropshot\_25 Start: 16619, Stop: 17353, Start Num: 15

Candidate Starts for Dropshot\_25:

(Start: 15 @16619 has 164 MA's), (31, 16742), (38, 16784), (43, 16823), (49, 16868), (54, 16913), (73, 17039), (79, 17075), (82, 17087), (86, 17120), (103, 17246), (108, 17288),

Gene: Eden\_18 Start: 14590, Stop: 15423, Start Num: 15

Candidate Starts for Eden\_18:

(3, 14392), (Start: 15 @14590 has 164 MA's), (20, 14626), (31, 14731), (34, 14743), (35, 14752), (41, 14791), (42, 14797), (45, 14821), (47, 14848), (49, 14857), (65, 14986), (97, 15178), (102, 15217), (116, 15340), (117, 15355), (118, 15361),

Gene: Elva\_20 Start: 16052, Stop: 16888, Start Num: 15

Candidate Starts for Elva\_20:

(Start: 15 @16052 has 164 MA's), (31, 16193), (34, 16205), (41, 16253), (42, 16259), (43, 16274), (44, 16277), (46, 16304), (49, 16319), (54, 16364), (67, 16454), (68, 16466), (97, 16640), (115, 16793), (116, 16802),

Gene: Erudite\_31 Start: 20210, Stop: 21154, Start Num: 15

Candidate Starts for Erudite\_31:

(Start: 15 @20210 has 164 MA's), (16, 20216), (18, 20234), (23, 20282), (26, 20300), (28, 20333), (34, 20366), (40, 20399), (50, 20471), (56, 20525), (57, 20537), (67, 20615), (70, 20633), (75, 20654), (78, 20672), (93, 20789), (97, 20804), (109, 20909), (110, 20918),

Gene: Eula\_20 Start: 16112, Stop: 17200, Start Num: 15

Candidate Starts for Eula\_20:

(5, 15992), (8, 16052), (Start: 15 @16112 has 164 MA's), (31, 16253), (34, 16265), (35, 16274), (42, 16319), (44, 16337), (47, 16370), (49, 16379), (59, 16466), (68, 16526),

Gene: Finalfrontier\_21 Start: 16622, Stop: 17710, Start Num: 15

Candidate Starts for Finalfrontier\_21:

(Start: 15 @16622 has 164 MA's), (31, 16763), (42, 16829), (44, 16847), (45, 16853), (49, 16889), (67, 17024), (68, 17036), (83, 17111), (111, 17336), (121, 17420), (130, 17591),

Gene: FireCastle\_23 Start: 18399, Stop: 19472, Start Num: 15

Candidate Starts for FireCastle\_23:

(9, 18345), (13, 18369), (Start: 15 @18399 has 164 MA's), (31, 18522), (38, 18564), (49, 18642), (54, 18687), (63, 18759), (73, 18813), (78, 18837), (79, 18849), (82, 18861), (88, 18906), (97, 18969), (102, 18996), (123, 19173), (131, 19365), (132, 19395),

Gene: FlameThrower\_18 Start: 15673, Stop: 16506, Start Num: 15

Candidate Starts for FlameThrower\_18:

(Start: 15 @15673 has 164 MA's), (28, 15793), (31, 15814), (34, 15826), (35, 15835), (42, 15880), (43, 15895), (44, 15898), (50, 15943), (54, 15985), (67, 16075), (94, 16252), (97, 16261),

Gene: Floop\_19 Start: 15888, Stop: 17012, Start Num: 15

Candidate Starts for Floop\_19:

(Start: 15 @15888 has 164 MA's), (47, 16128), (60, 16233), (67, 16272), (92, 16449), (133, 16944),

Gene: Forester\_35 Start: 17869, Stop: 18762, Start Num: 15

Candidate Starts for Forester\_35:

(Start: 15 @17869 has 164 MA's), (16, 17875), (28, 17980), (48, 18115), (55, 18169), (87, 18364),

Gene: FountainFog\_31 Start: 19810, Stop: 20754, Start Num: 15

Candidate Starts for FountainFog\_31:

(Start: 15 @19810 has 164 MA's), (16, 19816), (18, 19834), (23, 19882), (26, 19900), (34, 19966), (40, 19999), (56, 20125), (70, 20233), (78, 20272), (89, 20359), (93, 20389), (97, 20404), (109, 20509), (110, 20518),

Gene: Franklin22\_19 Start: 14773, Stop: 15609, Start Num: 15

Candidate Starts for Franklin22\_19:

(Start: 15 @14773 has 164 MA's), (20, 14809), (31, 14914), (34, 14926), (35, 14935), (42, 14980), (45, 15004), (47, 15031), (49, 15040), (65, 15169), (67, 15175), (68, 15187), (97, 15361), (118, 15547),

Gene: FreddieHg\_31 Start: 19669, Stop: 20613, Start Num: 15

Candidate Starts for FreddieHg\_31:

(Start: 15 @19669 has 164 MA's), (16, 19675), (18, 19693), (23, 19741), (26, 19759), (28, 19792), (34, 19825), (40, 19858), (56, 19984), (67, 20074), (70, 20092), (75, 20113), (78, 20131), (93, 20248), (97, 20263), (100, 20293), (109, 20368), (110, 20377),

Gene: Gack\_18 Start: 14659, Stop: 15495, Start Num: 15

Candidate Starts for Gack\_18:

(Start: 15 @14659 has 164 MA's), (20, 14695), (31, 14800), (34, 14812), (35, 14821), (42, 14866), (45, 14890), (47, 14917), (49, 14926), (65, 15055), (67, 15061), (68, 15073), (97, 15247), (118, 15433),

Gene: GardenState\_19 Start: 16381, Stop: 17271, Start Num: 15

Candidate Starts for GardenState\_19:

(Start: 15 @16381 has 164 MA's), (16, 16387), (39, 16546), (55, 16681), (58, 16705), (62, 16729), (65, 16750),

Gene: Gilda\_32 Start: 20501, Stop: 21445, Start Num: 15

Candidate Starts for Gilda\_32:

(Start: 15 @20501 has 164 MA's), (16, 20507), (18, 20525), (23, 20573), (26, 20591), (32, 20651), (34, 20657), (38, 20675), (40, 20690), (56, 20816), (67, 20906), (70, 20924), (78, 20963), (84, 21005), (97, 21095), (109, 21200), (110, 21209),

Gene: Gingerbug\_22 Start: 16985, Stop: 17878, Start Num: 15

Candidate Starts for Gingerbug\_22:

(Start: 15 @16985 has 164 MA's), (24, 17057), (31, 17108), (33, 17117), (49, 17225), (50, 17228), (54, 17270), (67, 17363), (71, 17384), (79, 17432), (88, 17489), (98, 17561), (113, 17672), (120, 17729),

Gene: Goodman\_24 Start: 18583, Stop: 19314, Start Num: 15

Candidate Starts for Goodman\_24:

(Start: 15 @18583 has 164 MA's), (31, 18706), (53, 18871), (54, 18874), (67, 18967), (68, 18979), (73, 19000), (97, 19159), (103, 19207), (114, 19285),

Gene: Gretchen\_19 Start: 17157, Stop: 18050, Start Num: 15

Candidate Starts for Gretchen\_19:

(Start: 15 @17157 has 164 MA's), (16, 17163), (28, 17268), (48, 17403), (55, 17457), (87, 17652),

Gene: Guzman\_27 Start: 17028, Stop: 17762, Start Num: 15

Candidate Starts for Guzman\_27:

(Start: 15 @17028 has 164 MA's), (31, 17151), (37, 17184), (38, 17193), (43, 17232), (49, 17277), (51, 17283), (54, 17322), (73, 17448), (79, 17484), (82, 17496), (86, 17529), (101, 17628), (102, 17634), (108, 17697),

Gene: Hager\_33 Start: 20063, Stop: 21007, Start Num: 15

Candidate Starts for Hager\_33:

(Start: 15 @20063 has 164 MA's), (16, 20069), (18, 20087), (23, 20135), (26, 20153), (34, 20219), (40, 20252), (56, 20378), (70, 20486), (76, 20513), (78, 20525), (93, 20642), (97, 20657), (109, 20762), (110, 20771),

Gene: Haunter\_32 Start: 19914, Stop: 20858, Start Num: 15

Candidate Starts for Haunter\_32:

(Start: 15 @19914 has 164 MA's), (16, 19920), (18, 19938), (23, 19986), (26, 20004), (32, 20064), (34, 20070), (38, 20088), (40, 20103), (50, 20175), (56, 20229), (67, 20319), (70, 20337), (78, 20376), (84, 20418), (97, 20508), (109, 20613), (110, 20622),

Gene: Hiddenleaf\_31 Start: 19653, Stop: 20597, Start Num: 15

Candidate Starts for Hiddenleaf\_31:

(Start: 15 @19653 has 164 MA's), (16, 19659), (18, 19677), (23, 19725), (26, 19743), (28, 19776), (34, 19809), (40, 19842), (51, 19917), (67, 20058), (70, 20076), (75, 20097), (78, 20115), (93, 20232), (97, 20247), (100, 20277), (109, 20352), (110, 20361),

Gene: Honk\_17 Start: 14329, Stop: 15024, Start Num: 17

Candidate Starts for Honk\_17:

(Start: 17 @14329 has 3 MA's), (21, 14374), (25, 14404), (31, 14461), (64, 14707), (65, 14716), (77, 14776),

Gene: Htur\_23 Start: 18637, Stop: 19368, Start Num: 15

Candidate Starts for Htur\_23:

(Start: 15 @18637 has 164 MA's), (31, 18760), (37, 18793), (53, 18925), (67, 19021), (68, 19033), (73, 19054), (81, 19096), (94, 19204), (97, 19213),

Gene: IAmGroot\_19 Start: 17043, Stop: 17933, Start Num: 15

Candidate Starts for IAmGroot\_19:

(Start: 15 @17043 has 164 MA's), (16, 17049), (39, 17208), (55, 17343), (58, 17367), (62, 17391), (65, 17412),

Gene: Icarian\_20 Start: 15969, Stop: 16805, Start Num: 15

Candidate Starts for Icarian\_20:

(Start: 15 @15969 has 164 MA's), (20, 16005), (24, 16041), (31, 16110), (34, 16122), (35, 16131), (42, 16176), (44, 16194), (45, 16200), (49, 16236), (59, 16323), (66, 16368), (67, 16371), (68, 16383), (97, 16557), (104, 16626), (106, 16635), (116, 16719),

Gene: IndiRoo\_23 Start: 16835, Stop: 17902, Start Num: 15

Candidate Starts for IndiRoo\_23:

(Start: 15 @16835 has 164 MA's), (31, 16958), (36, 16988), (43, 17036), (49, 17078), (67, 17216), (73, 17249), (78, 17273), (79, 17285), (82, 17297), (88, 17342), (90, 17375), (93, 17390), (95, 17399), (118, 17573), (123, 17600),

Gene: IndyLu\_20 Start: 16077, Stop: 17165, Start Num: 15

Candidate Starts for IndyLu\_20:

(Start: 15 @16077 has 164 MA's), (31, 16218), (42, 16284), (44, 16302), (45, 16308), (49, 16344), (67, 16479), (68, 16491), (83, 16566), (111, 16791), (121, 16875), (130, 17046),

Gene: JDawG\_31 Start: 20237, Stop: 21181, Start Num: 15

Candidate Starts for JDawG\_31:

(Start: 15 @20237 has 164 MA's), (16, 20243), (18, 20261), (23, 20309), (26, 20327), (28, 20360), (34, 20393), (40, 20426), (50, 20498), (56, 20552), (57, 20564), (67, 20642), (70, 20660), (75, 20681), (78, 20699), (93, 20816), (97, 20831), (109, 20936), (110, 20945),

Gene: Jabb\_20 Start: 16151, Stop: 17239, Start Num: 15

Candidate Starts for Jabb\_20:

(5, 16031), (8, 16091), (Start: 15 @16151 has 164 MA's), (31, 16292), (34, 16304), (35, 16313), (42, 16358), (44, 16376), (47, 16409), (49, 16418), (59, 16505), (68, 16565),

Gene: Jakelyne\_28 Start: 16835, Stop: 17569, Start Num: 15

Candidate Starts for Jakelyne\_28:

(Start: 15 @16835 has 164 MA's), (31, 16958), (37, 16991), (38, 17000), (43, 17039), (49, 17084), (54, 17129), (73, 17255), (79, 17291), (82, 17303), (86, 17336), (101, 17435), (102, 17441), (108, 17504),

Gene: Jera\_24 Start: 17697, Stop: 18428, Start Num: 15

Candidate Starts for Jera\_24:

(Start: 15 @17697 has 164 MA's), (31, 17820), (53, 17985), (67, 18081), (68, 18093), (73, 18114), (79, 18150), (97, 18273),

Gene: JingleBells\_31 Start: 19774, Stop: 20718, Start Num: 15

Candidate Starts for JingleBells\_31:

(Start: 15 @19774 has 164 MA's), (16, 19780), (18, 19798), (23, 19846), (26, 19864), (28, 19897), (34, 19930), (40, 19963), (50, 20035), (56, 20089), (57, 20101), (67, 20179), (70, 20197), (75, 20218), (78, 20236), (93, 20353), (97, 20368), (109, 20473), (110, 20482),

Gene: Johann\_24 Start: 18583, Stop: 19314, Start Num: 15

Candidate Starts for Johann\_24:

(Start: 15 @18583 has 164 MA's), (31, 18706), (53, 18871), (54, 18874), (67, 18967), (68, 18979), (73, 19000), (97, 19159), (103, 19207), (114, 19285),

Gene: Johnathan\_20 Start: 16135, Stop: 17223, Start Num: 15

Candidate Starts for Johnathan\_20:

(Start: 15 @16135 has 164 MA's), (31, 16276), (34, 16288), (42, 16342), (44, 16360), (49, 16402), (67, 16537), (68, 16549), (74, 16573), (111, 16849), (129, 17086),

Gene: Jovita\_20 Start: 16216, Stop: 17304, Start Num: 15

Candidate Starts for Jovita\_20:

(5, 16096), (8, 16156), (Start: 15 @16216 has 164 MA's), (31, 16357), (34, 16369), (35, 16378), (42, 16423), (44, 16441), (47, 16474), (49, 16483), (59, 16570), (68, 16630),

Gene: Kamdara\_18 Start: 15686, Stop: 16519, Start Num: 15

Candidate Starts for Kamdara\_18:

(Start: 15 @15686 has 164 MA's), (20, 15722), (28, 15806), (31, 15827), (34, 15839), (35, 15848), (39, 15872), (41, 15887), (42, 15893), (45, 15917), (46, 15938), (67, 16088), (68, 16100), (75, 16127), (97, 16274), (109, 16379), (117, 16451), (119, 16463),

Gene: Karate\_31 Start: 20530, Stop: 21474, Start Num: 15

Candidate Starts for Karate\_31:

(Start: 15 @20530 has 164 MA's), (16, 20536), (18, 20554), (23, 20602), (26, 20620), (34, 20686), (40, 20719), (50, 20791), (56, 20845), (67, 20935), (70, 20953), (74, 20971), (78, 20992), (81, 21010), (93, 21109), (97, 21124), (109, 21229), (110, 21238),

Gene: Kate\_32 Start: 20509, Stop: 21453, Start Num: 15

Candidate Starts for Kate\_32:

(Start: 15 @20509 has 164 MA's), (16, 20515), (18, 20533), (23, 20581), (26, 20599), (32, 20659), (34, 20665), (38, 20683), (40, 20698), (56, 20824), (67, 20914), (70, 20932), (78, 20971), (84, 21013), (97, 21103), (109, 21208), (110, 21217),

Gene: Kate33\_20 Start: 16079, Stop: 17167, Start Num: 15

Candidate Starts for Kate33\_20:

(Start: 15 @16079 has 164 MA's), (31, 16220), (42, 16286), (44, 16304), (45, 16310), (49, 16346), (67, 16481), (68, 16493), (83, 16568), (111, 16793), (121, 16877), (130, 17048),

Gene: Katzastrophic\_18 Start: 15815, Stop: 16648, Start Num: 15

Candidate Starts for Katzastrophic\_18:

(Start: 15 @15815 has 164 MA's), (28, 15935), (31, 15956), (34, 15968), (35, 15977), (42, 16022), (43, 16037), (44, 16040), (50, 16085), (54, 16127), (65, 16211), (67, 16217),

Gene: Kenzers\_20 Start: 16099, Stop: 17187, Start Num: 15

Candidate Starts for Kenzers\_20:

(Start: 15 @16099 has 164 MA's), (31, 16240), (42, 16306), (44, 16324), (49, 16366), (67, 16501), (68, 16513), (81, 16576), (83, 16588), (102, 16729), (111, 16813), (130, 17068),

Gene: Kieran\_18 Start: 15690, Stop: 16523, Start Num: 15

Candidate Starts for Kieran\_18:

(Start: 15 @15690 has 164 MA's), (20, 15726), (28, 15810), (31, 15831), (34, 15843), (35, 15852), (39, 15876), (41, 15891), (42, 15897), (45, 15921), (46, 15942), (67, 16092), (68, 16104), (75, 16131), (97, 16278), (109, 16383), (117, 16455), (119, 16467),

Gene: Kors\_34 Start: 20776, Stop: 21537, Start Num: 15

Candidate Starts for Kors\_34:

(Start: 15 @20776 has 164 MA's), (16, 20782), (23, 20848), (27, 20869), (28, 20899), (31, 20920), (32, 20926), (40, 20965), (49, 21034), (56, 21091), (57, 21103), (65, 21178), (75, 21223), (78, 21241), (79, 21253), (82, 21265), (93, 21361), (95, 21370), (100, 21406), (104, 21445), (109, 21478),

Gene: Krampus\_32 Start: 20509, Stop: 21453, Start Num: 15

Candidate Starts for Krampus\_32:

(Start: 15 @20509 has 164 MA's), (16, 20515), (18, 20533), (23, 20581), (26, 20599), (32, 20659), (34, 20665), (38, 20683), (40, 20698), (56, 20824), (67, 20914), (70, 20932), (78, 20971), (84, 21013), (97, 21103), (109, 21208), (110, 21217),

Gene: Labella\_25 Start: 18578, Stop: 19309, Start Num: 15

Candidate Starts for Labella\_25:

(Start: 15 @18578 has 164 MA's), (31, 18701), (43, 18779), (53, 18866), (67, 18962), (68, 18974), (73, 18995), (79, 19031), (97, 19154),

Gene: Lahqtemish\_20 Start: 16125, Stop: 17213, Start Num: 15

Candidate Starts for Lahqtemish\_20:

(Start: 15 @16125 has 164 MA's), (31, 16266), (42, 16332), (44, 16350), (45, 16356), (49, 16392), (59, 16479), (67, 16527), (68, 16539), (83, 16614), (121, 16923), (125, 16944),

Gene: Lesiram\_25 Start: 17079, Stop: 17801, Start Num: 15

Candidate Starts for Lesiram\_25:

(2, 16848), (Start: 15 @17079 has 164 MA's), (19, 17109), (31, 17202), (37, 17235), (38, 17244), (54, 17364), (61, 17427), (65, 17451), (73, 17490), (93, 17631), (100, 17664), (103, 17694), (104, 17703),

Gene: Lilo27\_20 Start: 16088, Stop: 17176, Start Num: 15

Candidate Starts for Lilo27\_20:

(Start: 15 @16088 has 164 MA's), (31, 16229), (34, 16241), (42, 16295), (47, 16346), (49, 16355), (59, 16442), (67, 16490), (68, 16502),

Gene: LimaBean\_20 Start: 16131, Stop: 17219, Start Num: 15

Candidate Starts for LimaBean\_20:

(Start: 15 @16131 has 164 MA's), (31, 16272), (34, 16284), (42, 16338), (44, 16356), (49, 16398), (59, 16485), (67, 16533), (68, 16545), (74, 16569), (111, 16845),

Gene: Linayshia\_23 Start: 18629, Stop: 19360, Start Num: 15

Candidate Starts for Linayshia\_23:

(Start: 15 @18629 has 164 MA's), (31, 18752), (37, 18785), (53, 18917), (67, 19013), (68, 19025), (73, 19046), (81, 19088), (94, 19196), (97, 19205),

Gene: LordBart\_34 Start: 20692, Stop: 21453, Start Num: 15

Candidate Starts for LordBart\_34:

(Start: 15 @20692 has 164 MA's), (16, 20698), (23, 20764), (27, 20785), (28, 20815), (31, 20836), (32, 20842), (40, 20881), (49, 20950), (56, 21007), (57, 21019), (65, 21094), (75, 21139), (78, 21157), (79, 21169), (82, 21181), (93, 21277), (95, 21286), (100, 21322), (104, 21361),

Gene: Losacky\_27 Start: 16899, Stop: 17633, Start Num: 15

Candidate Starts for Losacky\_27:

(Start: 15 @16899 has 164 MA's), (31, 17022), (37, 17055), (38, 17064), (43, 17103), (49, 17148), (54, 17193), (73, 17319), (79, 17355), (82, 17367), (86, 17400), (101, 17499), (102, 17505), (108, 17568),

Gene: Loviatar\_19 Start: 16059, Stop: 16895, Start Num: 15

Candidate Starts for Loviatar\_19:

(Start: 15 @16059 has 164 MA's), (20, 16095), (24, 16131), (31, 16200), (34, 16212), (41, 16260), (42, 16266), (44, 16284), (49, 16326), (66, 16458), (67, 16461), (68, 16473), (104, 16716), (106, 16725), (116, 16809), (117, 16824),

Gene: Lynlen\_20 Start: 16099, Stop: 17187, Start Num: 15

Candidate Starts for Lynlen\_20:

(Start: 15 @16099 has 164 MA's), (31, 16240), (42, 16306), (44, 16324), (49, 16366), (67, 16501), (68, 16513), (81, 16576), (83, 16588), (102, 16729), (111, 16813), (130, 17068),

Gene: Mabodamaca\_19 Start: 16389, Stop: 17288, Start Num: 15

Candidate Starts for Mabodamaca\_19:

(Start: 15 @16389 has 164 MA's), (32, 16527), (60, 16725), (74, 16800), (79, 16833), (112, 17088), (126, 17190),

Gene: Mariel\_29 Start: 17191, Stop: 17925, Start Num: 15

Candidate Starts for Mariel\_29:

(Start: 15 @17191 has 164 MA's), (31, 17314), (37, 17347), (38, 17356), (43, 17395), (49, 17440), (54, 17485), (73, 17611), (79, 17647), (82, 17659), (86, 17692), (101, 17791), (102, 17797), (108, 17860),

Gene: MenE\_26 Start: 16887, Stop: 17621, Start Num: 15

Candidate Starts for MenE\_26:

(Start: 15 @16887 has 164 MA's), (31, 17010), (37, 17043), (38, 17052), (43, 17091), (49, 17136), (54, 17181), (73, 17307), (79, 17343), (82, 17355), (86, 17388), (101, 17487), (102, 17493), (108, 17556),

Gene: Milani\_24 Start: 17465, Stop: 18532, Start Num: 15

Candidate Starts for Milani\_24:

(14, 17450), (Start: 15 @17465 has 164 MA's), (31, 17588), (49, 17708), (73, 17879), (78, 17903), (88, 17972), (93, 18020), (95, 18029), (97, 18035), (118, 18203), (121, 18221),

Gene: Milomuff\_21 Start: 16495, Stop: 17583, Start Num: 15

Candidate Starts for Milomuff\_21:

(Start: 15 @16495 has 164 MA's), (27, 16585), (31, 16636), (42, 16702), (44, 16720), (49, 16762), (59, 16849), (67, 16897), (68, 16909), (81, 16972),

Gene: MortySmith\_30 Start: 19625, Stop: 20569, Start Num: 15

Candidate Starts for MortySmith\_30:

(Start: 15 @19625 has 164 MA's), (16, 19631), (18, 19649), (23, 19697), (26, 19715), (28, 19748), (34, 19781), (40, 19814), (50, 19886), (56, 19940), (57, 19952), (67, 20030), (70, 20048), (75, 20069), (78, 20087), (93, 20204), (97, 20219), (109, 20324), (110, 20333),

Gene: MsUbiquitous\_20 Start: 16151, Stop: 17239, Start Num: 15

Candidate Starts for MsUbiquitous\_20:

(5, 16031), (8, 16091), (Start: 15 @16151 has 164 MA's), (31, 16292), (34, 16304), (35, 16313), (42, 16358), (44, 16376), (47, 16409), (49, 16418), (59, 16505), (68, 16565),

Gene: NCRodriguez\_27 Start: 16939, Stop: 17673, Start Num: 15

Candidate Starts for NCRodriguez\_27:

(Start: 15 @16939 has 164 MA's), (31, 17062), (37, 17095), (38, 17104), (43, 17143), (49, 17188), (54, 17233), (73, 17359), (79, 17395), (82, 17407), (86, 17440), (101, 17539), (102, 17545), (108, 17608),

Gene: NarutoRun\_32 Start: 20500, Stop: 21444, Start Num: 15

Candidate Starts for NarutoRun\_32:

(Start: 15 @20500 has 164 MA's), (16, 20506), (18, 20524), (23, 20572), (26, 20590), (32, 20650), (34, 20656), (38, 20674), (40, 20689), (56, 20815), (67, 20905), (70, 20923), (78, 20962), (84, 21004), (97, 21094), (109, 21199), (110, 21208), (124, 21319),

Gene: Neptune\_32 Start: 20477, Stop: 21421, Start Num: 15

Candidate Starts for Neptune\_32:

(Start: 15 @20477 has 164 MA's), (16, 20483), (18, 20501), (23, 20549), (26, 20567), (32, 20627), (34, 20633), (38, 20651), (40, 20666), (56, 20792), (67, 20882), (70, 20900), (78, 20939), (84, 20981), (97, 21071), (109, 21176), (110, 21185),

Gene: Nicky22\_21 Start: 16559, Stop: 17647, Start Num: 15

Candidate Starts for Nicky22\_21:

(Start: 15 @16559 has 164 MA's), (31, 16700), (34, 16712), (35, 16721), (42, 16766), (44, 16784), (47, 16817), (49, 16826), (59, 16913), (68, 16973), (111, 17273),

Gene: OhDear\_32 Start: 20506, Stop: 21450, Start Num: 15

Candidate Starts for OhDear\_32:

(Start: 15 @20506 has 164 MA's), (16, 20512), (18, 20530), (23, 20578), (26, 20596), (32, 20656), (34, 20662), (38, 20680), (40, 20695), (56, 20821), (67, 20911), (70, 20929), (78, 20968), (84, 21010), (97, 21100), (109, 21205), (110, 21214),

Gene: Olliecat\_18 Start: 15566, Stop: 16315, Start Num: 15

Candidate Starts for Olliecat\_18:

(Start: 15 @15566 has 164 MA's), (26, 15653), (31, 15704), (33, 15713), (42, 15770), (45, 15794), (47, 15821), (49, 15830), (50, 15833), (72, 15989), (94, 16142), (96, 16148), (105, 16223),

Gene: Olympi\_25 Start: 18570, Stop: 19301, Start Num: 15

Candidate Starts for Olympi\_25:

(Start: 15 @18570 has 164 MA's), (31, 18693), (53, 18858), (54, 18861), (67, 18954), (68, 18966), (73, 18987), (97, 19146), (103, 19194), (114, 19272),

Gene: OverHedge\_32 Start: 20467, Stop: 21411, Start Num: 15

Candidate Starts for OverHedge\_32:

(Start: 15 @20467 has 164 MA's), (16, 20473), (18, 20491), (23, 20539), (26, 20557), (32, 20617), (34, 20623), (38, 20641), (40, 20656), (56, 20782), (67, 20872), (70, 20890), (78, 20929), (84, 20971), (97, 21061), (109, 21166), (110, 21175),

Gene: PastaFagioli\_20 Start: 16113, Stop: 17201, Start Num: 15

Candidate Starts for PastaFagioli\_20:

(Start: 15 @16113 has 164 MA's), (31, 16254), (42, 16320), (44, 16338), (45, 16344), (49, 16380), (67, 16515), (68, 16527), (83, 16602), (121, 16911), (125, 16932),

Gene: Pecas\_20 Start: 16112, Stop: 17200, Start Num: 15

Candidate Starts for Pecas\_20:

(5, 15992), (8, 16052), (Start: 15 @16112 has 164 MA's), (31, 16253), (34, 16265), (35, 16274), (42, 16319), (44, 16337), (47, 16370), (49, 16379), (59, 16466), (68, 16526),

Gene: Percival\_19 Start: 16991, Stop: 17884, Start Num: 15

Candidate Starts for Percival\_19:

(Start: 15 @16991 has 164 MA's), (16, 16997), (28, 17102), (48, 17237), (55, 17291), (87, 17486),

Gene: PermaG\_24 Start: 18650, Stop: 19381, Start Num: 15

Candidate Starts for PermaG\_24:

(Start: 15 @18650 has 164 MA's), (31, 18773), (37, 18806), (53, 18938), (67, 19034), (68, 19046), (73, 19067), (81, 19109), (94, 19217), (97, 19226), (103, 19274),

Gene: Pharpay\_32 Start: 20522, Stop: 21466, Start Num: 15

Candidate Starts for Pharpay\_32:

(Start: 15 @20522 has 164 MA's), (16, 20528), (18, 20546), (23, 20594), (26, 20612), (32, 20672), (34, 20678), (38, 20696), (40, 20711), (56, 20837), (67, 20927), (70, 20945), (78, 20984), (84, 21026), (97, 21116), (109, 21221), (110, 21230),

Gene: PhigPhack\_21 Start: 16108, Stop: 17196, Start Num: 15

Candidate Starts for PhigPhack\_21:

(10, 16057), (Start: 15 @16108 has 164 MA's), (24, 16180), (31, 16249), (42, 16315), (44, 16333), (49, 16375), (59, 16462), (67, 16510), (68, 16522), (74, 16546),

Gene: PhillyJawn\_26 Start: 16619, Stop: 17353, Start Num: 15

Candidate Starts for PhillyJawn\_26:

(Start: 15 @16619 has 164 MA's), (31, 16742), (37, 16775), (38, 16784), (43, 16823), (49, 16868), (54, 16913), (73, 17039), (79, 17075), (82, 17087), (86, 17120), (101, 17219), (102, 17225), (108, 17288),

Gene: Phingu\_28 Start: 16838, Stop: 17572, Start Num: 15

Candidate Starts for Phingu\_28:

(Start: 15 @16838 has 164 MA's), (31, 16961), (37, 16994), (38, 17003), (43, 17042), (49, 17087), (51, 17093), (54, 17132), (73, 17258), (79, 17294), (82, 17306), (86, 17339), (101, 17438), (102, 17444), (108, 17507),

Gene: Phisb\_20 Start: 16125, Stop: 17213, Start Num: 15

Candidate Starts for Phisb\_20:

(5, 16005), (8, 16065), (Start: 15 @16125 has 164 MA's), (31, 16266), (34, 16278), (42, 16332), (44, 16350), (49, 16392), (59, 16479), (67, 16527), (68, 16539), (74, 16563),

Gene: Phonegingi\_25 Start: 16664, Stop: 17398, Start Num: 15

Candidate Starts for Phonegingi\_25:

(Start: 15 @16664 has 164 MA's), (31, 16787), (37, 16820), (38, 16829), (43, 16868), (49, 16913), (54, 16958), (73, 17084), (79, 17120), (86, 17165), (101, 17264), (102, 17270), (108, 17333),

Gene: PhunaPhoke\_32 Start: 20495, Stop: 21439, Start Num: 15

Candidate Starts for PhunaPhoke\_32:

(Start: 15 @20495 has 164 MA's), (16, 20501), (18, 20519), (23, 20567), (26, 20585), (32, 20645), (34, 20651), (38, 20669), (40, 20684), (56, 20810), (67, 20900), (70, 20918), (78, 20957), (84, 20999), (97, 21089), (109, 21194), (110, 21203),

Gene: Pickles13\_25 Start: 17050, Stop: 17784, Start Num: 15

Candidate Starts for Pickles13\_25:

(Start: 15 @17050 has 164 MA's), (31, 17173), (37, 17206), (38, 17215), (43, 17254), (49, 17299), (54, 17344), (73, 17470), (79, 17506), (82, 17518), (86, 17551), (108, 17719),

Gene: PondAmelia\_23 Start: 16111, Stop: 16947, Start Num: 15

Candidate Starts for PondAmelia\_23:

(7, 16051), (Start: 15 @16111 has 164 MA's), (20, 16147), (24, 16183), (31, 16252), (34, 16264), (41, 16312), (42, 16318), (44, 16336), (49, 16378), (66, 16510), (67, 16513), (68, 16525), (104, 16768), (106, 16777), (116, 16861), (117, 16876),

Gene: Potty\_32 Start: 20500, Stop: 21444, Start Num: 15

Candidate Starts for Potty\_32:

(Start: 15 @20500 has 164 MA's), (16, 20506), (18, 20524), (23, 20572), (26, 20590), (32, 20650), (34, 20656), (38, 20674), (40, 20689), (56, 20815), (67, 20905), (70, 20923), (78, 20962), (84, 21004), (97, 21094), (109, 21199), (110, 21208),

Gene: Poultruss\_31 Start: 20869, Stop: 21813, Start Num: 15

Candidate Starts for Poultruss\_31:

(Start: 15 @20869 has 164 MA's), (16, 20875), (18, 20893), (23, 20941), (26, 20959), (34, 21025), (40, 21058), (50, 21130), (56, 21184), (67, 21274), (70, 21292), (74, 21310), (78, 21331), (93, 21448), (97, 21463), (109, 21568), (110, 21577),

Gene: QMacho\_21 Start: 16595, Stop: 17683, Start Num: 15

Candidate Starts for QMacho\_21:

(5, 16475), (8, 16535), (Start: 15 @16595 has 164 MA's), (31, 16736), (34, 16748), (35, 16757), (42, 16802), (44, 16820), (47, 16853), (49, 16862), (59, 16949), (68, 17009),

Gene: Quenya\_19 Start: 15646, Stop: 16479, Start Num: 15

Candidate Starts for Quenya\_19:

(Start: 15 @15646 has 164 MA's), (20, 15682), (31, 15787), (34, 15799), (42, 15853), (44, 15871), (45, 15877), (47, 15904), (49, 15913), (97, 16234), (99, 16255), (117, 16411),

Gene: Rachella\_32 Start: 20503, Stop: 21447, Start Num: 15

Candidate Starts for Rachella\_32:

(Start: 15 @20503 has 164 MA's), (16, 20509), (18, 20527), (23, 20575), (26, 20593), (32, 20653), (34, 20659), (38, 20677), (40, 20692), (50, 20764), (56, 20818), (67, 20908), (70, 20926), (78, 20965), (84, 21007), (97, 21097), (109, 21202), (110, 21211),

Gene: Rasovi\_23 Start: 18637, Stop: 19368, Start Num: 15

Candidate Starts for Rasovi\_23:

(Start: 15 @18637 has 164 MA's), (31, 18760), (37, 18793), (53, 18925), (67, 19021), (68, 19033), (73, 19054), (81, 19096), (94, 19204), (97, 19213),

Gene: Rie18\_32 Start: 20016, Stop: 20960, Start Num: 15

Candidate Starts for Rie18\_32:

(Start: 15 @20016 has 164 MA's), (16, 20022), (18, 20040), (23, 20088), (26, 20106), (34, 20172), (40, 20205), (56, 20331), (70, 20439), (76, 20466), (78, 20478), (93, 20595), (97, 20610), (109, 20715), (110, 20724),

Gene: RikSengupta\_34 Start: 20813, Stop: 21574, Start Num: 15

Candidate Starts for RikSengupta\_34:

(Start: 15 @20813 has 164 MA's), (16, 20819), (23, 20885), (27, 20906), (28, 20936), (31, 20957), (32, 20963), (40, 21002), (49, 21071), (56, 21128), (57, 21140), (65, 21215), (75, 21260), (78, 21278), (79, 21290), (82, 21302), (93, 21398), (95, 21407), (100, 21443), (104, 21482), (109, 21515),

Gene: Rollins\_18 Start: 14243, Stop: 15079, Start Num: 15

Candidate Starts for Rollins\_18:

(Start: 15 @14243 has 164 MA's), (20, 14279), (28, 14363), (31, 14384), (42, 14450), (47, 14501), (85, 14747), (97, 14831), (117, 15011),

Gene: Rona\_18 Start: 15687, Stop: 16520, Start Num: 15

Candidate Starts for Rona\_18:

(Start: 15 @15687 has 164 MA's), (20, 15723), (28, 15807), (31, 15828), (34, 15840), (35, 15849), (39, 15873), (41, 15888), (42, 15894), (45, 15918), (46, 15939), (67, 16089), (68, 16101), (75, 16128), (97, 16275), (109, 16380), (117, 16452), (119, 16464),

Gene: Rootkit7\_23 Start: 18450, Stop: 19181, Start Num: 15

Candidate Starts for Rootkit7\_23:

(Start: 15 @18450 has 164 MA's), (31, 18573), (43, 18651), (53, 18738), (67, 18834), (68, 18846), (73, 18867), (79, 18903), (97, 19026),

Gene: SBlackberry\_23 Start: 18448, Stop: 19179, Start Num: 15

Candidate Starts for SBlackberry\_23:

(Start: 15 @18448 has 164 MA's), (31, 18571), (53, 18736), (54, 18739), (67, 18832), (68, 18844), (73, 18865), (80, 18904), (97, 19024), (103, 19072), (114, 19150),

Gene: SanaSana\_20 Start: 15998, Stop: 16834, Start Num: 15

Candidate Starts for SanaSana\_20:

(Start: 15 @15998 has 164 MA's), (20, 16034), (24, 16070), (31, 16139), (34, 16151), (41, 16199), (42, 16205), (44, 16223), (49, 16265), (66, 16397), (67, 16400), (68, 16412), (104, 16655), (106, 16664),

(116, 16748), (117, 16763),

Gene: SansAfet\_20 Start: 16042, Stop: 17130, Start Num: 15

Candidate Starts for SansAfet\_20:

(10, 15991), (Start: 15 @16042 has 164 MA's), (31, 16183), (42, 16249), (44, 16267), (49, 16309), (67, 16444), (68, 16456), (74, 16480), (111, 16756), (130, 17011),

Gene: SarBear\_20 Start: 16093, Stop: 17181, Start Num: 15

Candidate Starts for SarBear\_20:

(5, 15973), (8, 16033), (Start: 15 @16093 has 164 MA's), (31, 16234), (34, 16246), (35, 16255), (42, 16300), (44, 16318), (47, 16351), (49, 16360), (59, 16447), (68, 16507),

Gene: ScoobySnack\_24 Start: 16748, Stop: 17482, Start Num: 15

Candidate Starts for ScoobySnack\_24:

(Start: 15 @16748 has 164 MA's), (31, 16871), (37, 16904), (38, 16913), (43, 16952), (49, 16997), (51, 17003), (54, 17042), (73, 17168), (79, 17204), (82, 17216), (102, 17354), (108, 17417),

Gene: Sharkboy\_18 Start: 15674, Stop: 16507, Start Num: 15

Candidate Starts for Sharkboy\_18:

(Start: 15 @15674 has 164 MA's), (20, 15710), (28, 15794), (31, 15815), (34, 15827), (35, 15836), (39, 15860), (41, 15875), (42, 15881), (45, 15905), (46, 15926), (67, 16076), (68, 16088), (75, 16115), (97, 16262), (109, 16367), (117, 16439), (119, 16451),

Gene: Shayna\_18 Start: 15456, Stop: 16196, Start Num: 15

Candidate Starts for Shayna\_18:

(Start: 15 @15456 has 164 MA's), (27, 15546), (42, 15660), (49, 15720),

Gene: SilentWarrior\_31 Start: 19666, Stop: 20610, Start Num: 15

Candidate Starts for SilentWarrior\_31:

(Start: 15 @19666 has 164 MA's), (16, 19672), (18, 19690), (23, 19738), (26, 19756), (28, 19789), (34, 19822), (40, 19855), (50, 19927), (56, 19981), (57, 19993), (67, 20071), (70, 20089), (75, 20110), (78, 20128), (93, 20245), (97, 20260), (109, 20365), (110, 20374),

Gene: SirBeanington\_20 Start: 16132, Stop: 17220, Start Num: 15

Candidate Starts for SirBeanington\_20:

(5, 16012), (8, 16072), (Start: 15 @16132 has 164 MA's), (31, 16273), (42, 16339), (44, 16357), (49, 16399), (59, 16486), (67, 16534), (68, 16546), (74, 16570),

Gene: Skylord\_18 Start: 14188, Stop: 15024, Start Num: 15

Candidate Starts for Skylord\_18:

(Start: 15 @14188 has 164 MA's), (20, 14224), (28, 14308), (31, 14329), (42, 14395), (47, 14446), (85, 14692), (97, 14776), (117, 14956),

Gene: Slay\_20 Start: 16635, Stop: 17723, Start Num: 15

Candidate Starts for Slay\_20:

(5, 16515), (8, 16575), (Start: 15 @16635 has 164 MA's), (31, 16776), (34, 16788), (35, 16797), (42, 16842), (44, 16860), (47, 16893), (49, 16902), (59, 16989), (68, 17049),

Gene: Snakehole\_32 Start: 19750, Stop: 20694, Start Num: 15

Candidate Starts for Snakehole\_32:

(Start: 15 @19750 has 164 MA's), (16, 19756), (18, 19774), (23, 19822), (26, 19840), (28, 19873), (34, 19906), (40, 19939), (56, 20065), (67, 20155), (70, 20173), (75, 20194), (78, 20212), (93, 20329), (97, 20344), (100, 20374), (109, 20449), (110, 20458),

Gene: Softsoap\_19 Start: 15866, Stop: 16954, Start Num: 15

Candidate Starts for Softsoap\_19:

(5, 15746), (8, 15806), (Start: 15 @15866 has 164 MA's), (31, 16007), (34, 16019), (42, 16073), (44, 16091), (49, 16133), (59, 16220), (68, 16280), (74, 16304),

Gene: Solea\_22 Start: 16495, Stop: 17583, Start Num: 15

Candidate Starts for Solea\_22:

(Start: 15 @16495 has 164 MA's), (27, 16585), (31, 16636), (42, 16702), (44, 16720), (49, 16762), (59, 16849), (67, 16897), (68, 16909), (81, 16972),

Gene: Sparcetus\_34 Start: 20692, Stop: 21453, Start Num: 15

Candidate Starts for Sparcetus\_34:

(Start: 15 @20692 has 164 MA's), (16, 20698), (23, 20764), (27, 20785), (28, 20815), (31, 20836), (32, 20842), (40, 20881), (49, 20950), (56, 21007), (65, 21094), (75, 21139), (78, 21157), (79, 21169), (82, 21181), (93, 21277), (95, 21286), (100, 21322), (104, 21361), (109, 21394),

Gene: Squiracle\_18 Start: 15565, Stop: 16314, Start Num: 15

Candidate Starts for Squiracle\_18:

(Start: 15 @15565 has 164 MA's), (26, 15652), (31, 15703), (33, 15712), (42, 15769), (45, 15793), (47, 15820), (49, 15829), (50, 15832), (72, 15988), (94, 16141), (96, 16147), (105, 16222),

Gene: Stoor\_19 Start: 15995, Stop: 16831, Start Num: 15

Candidate Starts for Stoor\_19:

(Start: 15 @15995 has 164 MA's), (20, 16031), (24, 16067), (31, 16136), (34, 16148), (41, 16196), (42, 16202), (44, 16220), (49, 16262), (66, 16394), (67, 16397), (68, 16409), (104, 16652), (106, 16661), (116, 16745), (117, 16760),

Gene: Stromboli\_19 Start: 16134, Stop: 16967, Start Num: 15

Candidate Starts for Stromboli\_19:

(Start: 15 @16134 has 164 MA's), (20, 16170), (24, 16206), (31, 16275), (34, 16287), (35, 16296), (42, 16341), (44, 16359), (54, 16446), (67, 16536), (68, 16548), (97, 16722), (104, 16791), (106, 16800), (116, 16884),

Gene: SuMoo\_18 Start: 15340, Stop: 16239, Start Num: 15

Candidate Starts for SuMoo\_18:

(Start: 15 @15340 has 164 MA's), (39, 15505), (62, 15688), (79, 15784), (95, 15904), (112, 16039), (126, 16141),

Gene: Sucha\_20 Start: 15822, Stop: 16889, Start Num: 15

Candidate Starts for Sucha\_20:

(Start: 15 @15822 has 164 MA's), (31, 15945), (36, 15975), (43, 16023), (49, 16065), (52, 16104), (67, 16203), (73, 16236), (82, 16284), (88, 16329), (90, 16362), (93, 16377), (95, 16386), (118, 16560), (123, 16587), (127, 16656), (131, 16782), (134, 16821),

Gene: SunnyD\_18 Start: 15456, Stop: 16196, Start Num: 15

Candidate Starts for SunnyD\_18:

(Start: 15 @15456 has 164 MA's), (27, 15546), (42, 15660), (49, 15720),

Gene: SuperHands\_20 Start: 17876, Stop: 18769, Start Num: 15

Candidate Starts for SuperHands\_20:

(2, 17648), (6, 17759), (Start: 15 @17876 has 164 MA's), (16, 17882), (28, 17987), (48, 18122), (55, 18176), (87, 18371),

Gene: Sweetums\_24 Start: 17191, Stop: 17913, Start Num: 15

Candidate Starts for Sweetums\_24:

(1, 16951), (4, 17026), (10, 17134), (Start: 15 @17191 has 164 MA's), (19, 17221), (31, 17314), (37, 17347), (38, 17356), (54, 17476), (61, 17539), (73, 17602), (93, 17743), (100, 17776), (103, 17806), (104, 17815),

Gene: Swervy\_20 Start: 16093, Stop: 17181, Start Num: 15

Candidate Starts for Swervy\_20:

(5, 15973), (8, 16033), (Start: 15 @16093 has 164 MA's), (31, 16234), (34, 16246), (35, 16255), (42, 16300), (44, 16318), (47, 16351), (49, 16360), (59, 16447), (68, 16507),

Gene: Teagster\_19 Start: 16531, Stop: 17271, Start Num: 15

Candidate Starts for Teagster\_19:

(Start: 15 @16531 has 164 MA's), (27, 16621), (31, 16669), (34, 16681), (39, 16714), (42, 16735), (44, 16753), (86, 17044), (90, 17083),

Gene: Tedro\_32 Start: 19973, Stop: 20917, Start Num: 15

Candidate Starts for Tedro\_32:

(Start: 15 @19973 has 164 MA's), (16, 19979), (18, 19997), (23, 20045), (26, 20063), (32, 20123), (34, 20129), (38, 20147), (40, 20162), (56, 20288), (67, 20378), (70, 20396), (78, 20435), (84, 20477), (97, 20567), (109, 20672), (110, 20681),

Gene: Teng\_26 Start: 17129, Stop: 17851, Start Num: 15

Candidate Starts for Teng\_26:

(4, 16964), (Start: 15 @17129 has 164 MA's), (19, 17159), (31, 17252), (37, 17285), (38, 17294), (54, 17414), (73, 17540), (86, 17621), (93, 17681), (100, 17714), (103, 17744), (104, 17753),

Gene: TinyMiny\_34 Start: 20711, Stop: 21472, Start Num: 15

Candidate Starts for TinyMiny\_34:

(Start: 15 @20711 has 164 MA's), (16, 20717), (23, 20783), (27, 20804), (28, 20834), (31, 20855), (32, 20861), (40, 20900), (49, 20969), (56, 21026), (57, 21038), (65, 21113), (75, 21158), (78, 21176), (79, 21188), (82, 21200), (93, 21296), (95, 21305), (100, 21341), (104, 21380), (109, 21413),

Gene: Tongui\_31 Start: 19999, Stop: 20943, Start Num: 15

Candidate Starts for Tongui\_31:

(Start: 15 @19999 has 164 MA's), (16, 20005), (18, 20023), (23, 20071), (26, 20089), (34, 20155), (40, 20188), (56, 20314), (67, 20404), (78, 20461), (89, 20548), (93, 20578), (97, 20593), (109, 20698), (110, 20707),

Gene: TukTuk\_20 Start: 16151, Stop: 17239, Start Num: 15

Candidate Starts for TukTuk\_20:

(5, 16031), (8, 16091), (Start: 15 @16151 has 164 MA's), (31, 16292), (34, 16304), (35, 16313), (42, 16358), (44, 16376), (47, 16409), (49, 16418), (59, 16505), (68, 16565), (111, 16865),

Gene: TurboVicky\_23 Start: 18449, Stop: 19180, Start Num: 15

Candidate Starts for TurboVicky\_23:

(Start: 15 @18449 has 164 MA's), (31, 18572), (43, 18650), (53, 18737), (67, 18833), (68, 18845), (73, 18866), (79, 18902), (97, 19025),

Gene: Typher\_25 Start: 18578, Stop: 19309, Start Num: 15

Candidate Starts for Typher\_25:

(Start: 15 @18578 has 164 MA's), (31, 18701), (43, 18779), (53, 18866), (67, 18962), (68, 18974), (73, 18995), (79, 19031), (97, 19154),

Gene: UtzChips\_18 Start: 15946, Stop: 16878, Start Num: 15

Candidate Starts for UtzChips\_18:

(Start: 15 @15946 has 164 MA's), (79, 16402),

Gene: Violeta\_27 Start: 16717, Stop: 17451, Start Num: 15

Candidate Starts for Violeta\_27:

(Start: 15 @16717 has 164 MA's), (31, 16840), (37, 16873), (38, 16882), (43, 16921), (49, 16966), (54, 17011), (73, 17137), (79, 17173), (82, 17185), (86, 17218), (101, 17317), (102, 17323), (108, 17386),

Gene: Vitas\_18 Start: 14183, Stop: 15019, Start Num: 15

Candidate Starts for Vitas\_18:

(Start: 15 @14183 has 164 MA's), (20, 14219), (28, 14303), (31, 14324), (42, 14390), (47, 14441), (85, 14687), (97, 14771), (117, 14951),

Gene: WalkingDead\_19 Start: 16126, Stop: 16959, Start Num: 15

Candidate Starts for WalkingDead\_19:

(Start: 15 @16126 has 164 MA's), (20, 16162), (24, 16198), (31, 16267), (34, 16279), (41, 16327), (42, 16333), (44, 16351), (49, 16393), (54, 16438), (66, 16525), (67, 16528), (68, 16540), (97, 16714), (104, 16783), (106, 16792), (116, 16876), (119, 16903),

Gene: Warren\_26 Start: 16823, Stop: 17557, Start Num: 15

Candidate Starts for Warren\_26:

(Start: 15 @16823 has 164 MA's), (31, 16946), (37, 16979), (38, 16988), (43, 17027), (49, 17072), (54, 17117), (73, 17243), (79, 17279), (82, 17291), (86, 17324), (101, 17423), (102, 17429), (108, 17492),

Gene: Winchester007\_41 Start: 22737, Stop: 23471, Start Num: 15

Candidate Starts for Winchester007\_41:

(Start: 15 @22737 has 164 MA's), (31, 22860), (37, 22893), (38, 22902), (43, 22941), (49, 22986), (54, 23031), (73, 23157), (79, 23193), (82, 23205), (86, 23238), (101, 23337), (102, 23343), (108, 23406),

Gene: Wrackline\_30 Start: 18090, Stop: 19166, Start Num: 15

Candidate Starts for Wrackline\_30:

(Start: 15 @18090 has 164 MA's), (31, 18213), (32, 18219), (37, 18246), (49, 18333), (63, 18450), (68, 18483), (78, 18528), (82, 18552), (88, 18597), (93, 18645), (95, 18654), (110, 18762), (128, 18990), (135, 19101), (136, 19155),

Gene: Zanella\_23 Start: 18452, Stop: 19183, Start Num: 15

Candidate Starts for Zanella\_23:

(Start: 15 @18452 has 164 MA's), (31, 18575), (43, 18653), (53, 18740), (67, 18836), (68, 18848), (73, 18869), (79, 18905), (97, 19028),

Gene: Zeta1847\_17 Start: 16152, Stop: 16877, Start Num: 17

Candidate Starts for Zeta1847\_17:

(Start: 17 @16152 has 3 MA's), (23, 16212), (24, 16215), (31, 16284), (37, 16317), (38, 16326), (61, 16515), (64, 16530), (65, 16539), (101, 16746),