





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 296330 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296330 has 142 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Albanese\_21, Lakshmi\_21, Nubia\_21, Oxyntrius\_21
- Track 2 : GreenHearts\_21
- Track 3 : Immaculata\_21, Riverdale\_21, Potatoes\_21, Scuttle\_21, Rozby\_21, Cholula\_21
- Track 4 : Makoto\_17, Lasagna\_17, OurGirlNessie\_17, Pterodactyl\_17, WonderBoy\_17
- Track 5 : Kittykat\_17
- Track 6 : EstebanJulior\_17, MamaPearl\_17
- Track 7 : Glenn\_21, MeganNoll\_21, Savage2526\_21, MrGloopy\_21, BrotherBLo\_21, RAP15\_21
- Track 8 : BigMack\_17
- Track 9 : OMalley\_17, AustinPowers\_17, Eunoia\_17, Aledel\_17, Chridison\_17, Riovina\_17
- Track 10 : CristinaYang\_17, LilStuart\_17, Nancia\_17, Bodacious\_17, Lucy\_17, Lennox\_17
- Track 11 : Sergei\_17, KingBob\_17, Herb\_17, Temper16\_17, Maria1952\_17, Daiboju\_17
- Track 12 : TattModd\_21
- Track 13 : Moki\_17, Huckleberry\_17, HeadNerd\_17
- Track 14 : PitaDog\_17, ChewChew\_17
- Track 15 : Litotes\_21
- Track 16 : HunterDalle\_17, Vulture\_17
- Track 17 : CallieOMalley\_21, Suppi\_21, Canowicakte\_21
- Track 18 : Fluke\_21, Kalizoi\_21, Dino\_21, Zorro\_21
- Track 19 : AppleCider\_21
- Track 20 : Graynor\_21
- Track 21 : Bennie\_17
- Track 22 : Wawa\_21, Vallejo\_21
- Track 23 : MrBoss\_21
- Track 24 : Christian\_17
- Track 25 : Korra\_22
- Track 26 : Beethoven\_21
- Track 27 : DrRobert\_17
- Track 28 : DreamTeam\_17, Preamble\_17, Gisselle\_17
- Track 29 : Pumancara\_17
- Track 30 : Misaeng\_21
- Track 31 : Carpal\_21, Jumboset\_21

- Track 32 : Greenhouse\_21
- Track 33 : PartyCup\_21
- Track 34 : PinkFriday\_17
- Track 35 : RcigaStruga\_21, Huntingdon\_21
- Track 36 : Urla\_17
- Track 37 : Joann\_21
- Track 38 : Wayne\_21
- Track 39 : Supakev\_17
- Track 40 : Sashimi\_28, Faja\_27
- Track 41 : EvePickles\_27
- Track 42 : ObiToo\_19, Crewmate\_20
- Track 43 : MissSwiss\_19, PandaPo\_19
- Track 44 : IttyBittyPiggy\_19
- Track 45 : DrManhattan\_19, Adolin\_19
- Track 46 : VResidence\_19
- Track 47 : Reedo\_19
- Track 48 : KeAlii\_19
- Track 49 : Sue2\_19
- Track 50 : DrSierra\_19
- Track 51 : Wildwest\_20
- Track 52 : Tweety19\_19
- Track 53 : Snek\_19
- Track 54 : Gibbzilla\_27
- Track 55 : Dirdigger\_28
- Track 56 : Cole\_26
- Track 57 : AllBusiness\_27
- Track 58 : Toodles\_29
- Track 59 : Schism\_28, Nandita\_28, Guinevere\_28
- Track 60 : Julie\_28
- Track 61 : QuinnAvery\_28, Halloweekend\_26
- Track 62 : Popper\_26
- Track 63 : MillySue\_28
- Track 64 : GoodLuckBabe\_28
- Track 65 : Ichiang\_26
- Track 66 : IsHungry\_28
- Track 67 : Gusanita\_26
- Track 68 : Lenoxika\_28
- Track 69 : Elesar\_27
- Track 70 : Saintcarr\_28
- Track 71 : Donatella\_27
- Track 72 : ToastyOats\_31
- Track 73 : Yonex\_28, Kihatsu\_29, Ryan\_28, Zaheer\_28
- Track 74 : BigSherm\_27
- Track 75 : Kukla\_25
- Track 76 : GUPitcher\_25
- Track 77 : TripleJ\_27
- Track 78 : PetriParty\_26
- Track 79 : DreamEater\_26
- Track 80 : Ezurina\_23
- Track 81 : TMaxx\_24
- Track 82 : Studio\_25
- Track 83 : Agamoto\_26
- Track 84 : Ball\_17

- Track 85 : Shambre1\_21

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

The start number called the most often in the published annotations is 2, it was called in 105 of the 122 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese\_21, Aledel\_17, AllBusiness\_27, AppleCider\_21, AustinPowers\_17, Beethoven\_21, Bennie\_17, BigMack\_17, BigSherm\_27, Bodacious\_17, BrotherBLo\_21, CallieOMalley\_21, Canowicakte\_21, Carpal\_21, ChewChew\_17, Cholula\_21, Chridison\_17, Christian\_17, Cole\_26, CristinaYang\_17, Daiboju\_17, Dino\_21, Dirdigger\_28, Donatella\_27, DrRobert\_17, DreamEater\_26, DreamTeam\_17, Elesar\_27, EstebanJulior\_17, Eunoia\_17, EvePickles\_27, Faja\_27, Fluke\_21, GUPitcher\_25, Gibbzilla\_27, Gisselle\_17, Glenn\_21, GoodLuckBabe\_28, GreenHearts\_21, Greenhouse\_21, Guinevere\_28, Gusanita\_26, Hallweekend\_26, HeadNerd\_17, Herb\_17, Huckleberry\_17, HunterDalle\_17, Huntingdon\_21, Ichiang\_26, Immaculata\_21, Joann\_21, Julie\_28, Jumboset\_21, Kalizoi\_21, Kihatsu\_29, KingBob\_17, Kittykat\_17, Korra\_22, Kukla\_25, Lakshmi\_21, Lasagna\_17, Lennox\_17, Lenoxika\_28, LilStuart\_17, Lucy\_17, Makoto\_17, MamaPearl\_17, Maria1952\_17, MeganNoll\_21, MillySue\_28, Misaeng\_21, Moki\_17, MrGloopy\_21, Nancia\_17, Nandita\_28, Nubia\_21, OMalley\_17, OurGirlNessie\_17, Oxynfrius\_21, PartyCup\_21, PetriParty\_26, PinkFriday\_17, PitaDog\_17, Popper\_26, Potatoes\_21, Preamble\_17, Pterodactyl\_17, Pumancara\_17, QuinnAvery\_28, RAP15\_21, RcigaStruga\_21, Riovina\_17, Riverdale\_21, Rozby\_21, Ryan\_28, Saintcarr\_28, Sashimi\_28, Savage2526\_21, Schism\_28, Scuttle\_21, Sergei\_17, Shambre1\_21, Supakev\_17, Suppi\_21, TattModd\_21, Temper16\_17, ToastyOats\_31, Toodles\_29, TripleJ\_27, Urla\_17, Vallejo\_21, Vulture\_17, Wawa\_21, Wayne\_21, WonderBoy\_17, Yonex\_28, Zaheer\_28, Zorro\_21,

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

- Graynor\_21, Litotes\_21, MrBoss\_21,

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

- Adolin\_19, Agamoto\_26, Ball\_17, Crewmate\_20, DrManhattan\_19, DrSierra\_19, Ezurina\_23, IsHungry\_28, IttyBittyPiggy\_19, KeAlii\_19, MissSwiss\_19, ObiToo\_19, PandaPo\_19, Reedo\_19, Snek\_19, Studio\_25, Sue2\_19, TMaxx\_24, Tweety19\_19, VResidence\_19, Wildwest\_20,

**Summary by start number:**

Start 1:

- Found in 1 of 142 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IsHungry\_28 (FF),

Start 2:

- Found in 121 of 142 ( 85.2% ) of genes in pham
- Manual Annotations of this start: 105 of 122

- Called 97.5% of time when present
- Phage (with cluster) where this start called: Albanese\_21 (AK), Aledel\_17 (AK), AllBusiness\_27 (FF), AppleCider\_21 (AK), AustinPowers\_17 (AK), Beethoven\_21 (AK), Bennie\_17 (AK), BigMack\_17 (AK), BigSherm\_27 (FF), Bodacious\_17 (AK), BrotherBLo\_21 (AK), CallieOMalley\_21 (AK), Canowicakte\_21 (AK), Carpal\_21 (AK), ChewChew\_17 (AK), Cholula\_21 (AK), Chridison\_17 (AK), Christian\_17 (AK), Cole\_26 (FF), CristinaYang\_17 (AK), Daiboju\_17 (AK), Dino\_21 (AK), Dirtdigger\_28 (FF), Donatella\_27 (FF), DrRobert\_17 (AK), DreamEater\_26 (FJ), DreamTeam\_17 (AK), Elesar\_27 (FF), EstebanJulior\_17 (AK), Eunoia\_17 (AK), EvePickles\_27 (AY), Faja\_27 (AY), Fluke\_21 (AK), GUPitcher\_25 (FJ), Gibbzilla\_27 (FB), Gisselle\_17 (AK), Glenn\_21 (AK), GoodLuckBabe\_28 (FF), GreenHearts\_21 (AK), Greenhouse\_21 (AK), Guinevere\_28 (FF), Gusanita\_26 (FF), Halloween\_26 (FF), HeadNerd\_17 (AK), Herb\_17 (AK), Huckleberry\_17 (AK), HunterDalle\_17 (AK), Huntingdon\_21 (AK), Ichiang\_26 (FF), Immaculata\_21 (AK), Joann\_21 (AK), Julie\_28 (FF), Jumboset\_21 (AK), Kalizoi\_21 (AK), Kihatsu\_29 (FF), KingBob\_17 (AK), Kittykat\_17 (AK), Korra\_22 (AK), Kukla\_25 (FJ), Lakshmi\_21 (AK), Lasagna\_17 (AK), Lennox\_17 (AK), Lenoxika\_28 (FF), LilStuart\_17 (AK), Lucy\_17 (AK), Makoto\_17 (AK), MamaPearl\_17 (AK), Maria1952\_17 (AK), MeganNoll\_21 (AK), MillySue\_28 (FF), Misaeng\_21 (AK), Moki\_17 (AK), MrGloopy\_21 (AK), Nancia\_17 (AK), Nandita\_28 (FF), Nubia\_21 (AK), OMalley\_17 (AK), OurGirlNessie\_17 (AK), Oxynfrius\_21 (AK), PartyCup\_21 (AK), PetriParty\_26 (FJ), PinkFriday\_17 (AK), PitaDog\_17 (AK), Popper\_26 (FF), Potatoes\_21 (AK), Preamble\_17 (AK), Pterodactyl\_17 (AK), Pumancara\_17 (AK), QuinnAvery\_28 (FF), RAP15\_21 (AK), RcigaStruga\_21 (AK), Riovina\_17 (AK), Riverdale\_21 (AK), Rozby\_21 (AK), Ryan\_28 (FF), Saintcarr\_28 (FF), Sashimi\_28 (AY), Savage2526\_21 (AK), Schism\_28 (FF), Scuttle\_21 (AK), Sergei\_17 (AK), Shambre1\_21 (singleton), Supakev\_17 (AK), Suppi\_21 (AK), TattModd\_21 (AK), Temper16\_17 (AK), ToastyOats\_31 (FF), Toodles\_29 (FF), TripleJ\_27 (FJ), Urla\_17 (AK), Vallejo\_21 (AK), Vulture\_17 (AK), Wawa\_21 (AK), Wayne\_21 (AK), WonderBoy\_17 (AK), Yonex\_28 (FF), Zaheer\_28 (FF), Zorro\_21 (AK),

#### Start 3:

- Found in 9 of 142 ( 6.3% ) of genes in pham
- Manual Annotations of this start: 1 of 122
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Graynor\_21 (AK), Litotes\_21 (AK), MrBoss\_21 (AK),

#### Start 4:

- Found in 1 of 142 ( 0.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ball\_17 (singleton),

#### Start 8:

- Found in 2 of 142 ( 1.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ezurina\_23 (FR), Studio\_25 (FR),

#### Start 10:

- Found in 15 of 142 ( 10.6% ) of genes in pham
- Manual Annotations of this start: 14 of 122

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin\_19 (AZ1), Crewmate\_20 (AZ1), DrManhattan\_19 (AZ1), DrSierra\_19 (AZ1), IttyBittyPiggy\_19 (AZ1), KeAlii\_19 (AZ1), MissSwiss\_19 (AZ1), ObiToo\_19 (AZ1), PandaPo\_19 (AZ1), Reedo\_19 (AZ1), Snek\_19 (AZ3), Sue2\_19 (AZ1), Tweety19\_19 (AZ3), VResidence\_19 (AZ1), Wildwest\_20 (AZ1),

Start 52:

- Found in 2 of 142 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 1 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agamoto\_26 (FR), TMaxx\_24 (FR),

### **Summary by clusters:**

There are 9 clusters represented in this pham: FR, AK, singleton, FB, FF, AY, AZ1, FJ, AZ3,

Info for manual annotations of cluster AK:

- Start number 2 was manually annotated 83 times for cluster AK.
- Start number 3 was manually annotated 1 time for cluster AK.

Info for manual annotations of cluster AY:

- Start number 2 was manually annotated 3 times for cluster AY.

Info for manual annotations of cluster AZ1:

- Start number 10 was manually annotated 12 times for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 10 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster FF:

- Start number 1 was manually annotated 1 time for cluster FF.
- Start number 2 was manually annotated 16 times for cluster FF.

Info for manual annotations of cluster FJ:

- Start number 2 was manually annotated 2 times for cluster FJ.

Info for manual annotations of cluster FR:

- Start number 52 was manually annotated 1 time for cluster FR.

### **Gene Information:**

Gene: Adolin\_19 Start: 15578, Stop: 16585, Start Num: 10

Candidate Starts for Adolin\_19:

(Start: 10 @15578 has 14 MA's), (23, 15635), (44, 15785), (58, 15896), (103, 16388),

Gene: Agamoto\_26 Start: 19382, Stop: 20188, Start Num: 52

Candidate Starts for Agamoto\_26:

(Start: 52 @19382 has 1 MA's), (60, 19439), (67, 19523), (71, 19565), (111, 19937), (126, 20033),

Gene: Albanese\_21 Start: 17238, Stop: 18263, Start Num: 2

Candidate Starts for Albanese\_21:

(Start: 2 @17238 has 105 MA's), (24, 17346), (29, 17370), (33, 17397), (37, 17430), (59, 17613), (71, 17814), (82, 17940), (85, 17958), (90, 17997), (92, 18027), (95, 18060), (96, 18075), (99, 18096), (100, 18099), (108, 18180), (109, 18189),

Gene: Aledel\_17 Start: 15558, Stop: 16583, Start Num: 2

Candidate Starts for Aledel\_17:

(Start: 2 @15558 has 105 MA's), (24, 15666), (29, 15690), (37, 15750), (50, 15855), (51, 15858), (59, 15933), (71, 16098), (84, 16239), (88, 16272), (89, 16275), (90, 16281), (93, 16314), (95, 16344), (96, 16359), (100, 16383), (102, 16428), (107, 16452), (108, 16464), (109, 16473), (122, 16533), (129, 16566),

Gene: AllBusiness\_27 Start: 21394, Stop: 22413, Start Num: 2

Candidate Starts for AllBusiness\_27:

(Start: 2 @21394 has 105 MA's), (17, 21445), (32, 21523), (35, 21544), (36, 21553), (37, 21556), (42, 21589), (43, 21595), (47, 21649), (53, 21697), (54, 21703), (57, 21724), (62, 21829), (74, 21937), (84, 22045), (85, 22048), (100, 22192), (103, 22243), (106, 22258), (107, 22261), (125, 22387),

Gene: AppleCider\_21 Start: 17196, Stop: 18206, Start Num: 2

Candidate Starts for AppleCider\_21:

(Start: 2 @17196 has 105 MA's), (Start: 3 @17202 has 1 MA's), (24, 17298), (59, 17565), (62, 17652), (74, 17769), (84, 17880), (90, 17922), (95, 17985), (100, 18024), (104, 18099), (107, 18111), (108, 18123), (118, 18174),

Gene: AustinPowers\_17 Start: 15559, Stop: 16584, Start Num: 2

Candidate Starts for AustinPowers\_17:

(Start: 2 @15559 has 105 MA's), (24, 15667), (29, 15691), (37, 15751), (50, 15856), (51, 15859), (59, 15934), (71, 16099), (84, 16240), (88, 16273), (89, 16276), (90, 16282), (93, 16315), (95, 16345), (96, 16360), (100, 16384), (102, 16429), (107, 16453), (108, 16465), (109, 16474), (122, 16534), (129, 16567),

Gene: Ball\_17 Start: 14360, Stop: 15238, Start Num: 4

Candidate Starts for Ball\_17:

(4, 14360), (13, 14402), (14, 14411), (28, 14480), (34, 14516), (39, 14540), (47, 14621), (58, 14699), (67, 14807), (73, 14876), (75, 14882), (79, 14954), (80, 14969), (84, 14987), (91, 15011), (98, 15089), (116, 15221),

Gene: Beethoven\_21 Start: 17142, Stop: 18149, Start Num: 2

Candidate Starts for Beethoven\_21:

(Start: 2 @17142 has 105 MA's), (15, 17202), (24, 17250), (26, 17262), (37, 17334), (40, 17358), (59, 17517), (76, 17745), (77, 17778), (85, 17838), (90, 17877), (95, 17940), (96, 17955), (97, 17964), (99, 17976), (108, 18060), (109, 18069), (118, 18111),

Gene: Bennie\_17 Start: 15564, Stop: 16598, Start Num: 2

Candidate Starts for Bennie\_17:

(Start: 2 @15564 has 105 MA's), (24, 15672), (37, 15756), (38, 15759), (59, 15939), (62, 16026), (71, 16104), (82, 16227), (84, 16242), (95, 16347), (96, 16362), (100, 16386), (111, 16494), (115, 16506), (123, 16548),

Gene: BigMack\_17 Start: 15552, Stop: 16586, Start Num: 2

Candidate Starts for BigMack\_17:

(Start: 2 @15552 has 105 MA's), (24, 15660), (37, 15744), (38, 15747), (59, 15927), (62, 16014), (71, 16092), (82, 16215), (84, 16230), (88, 16263), (95, 16335), (96, 16350), (100, 16374), (111, 16482), (115, 16494), (123, 16536),

Gene: BigSherm\_27 Start: 21148, Stop: 22122, Start Num: 2

Candidate Starts for BigSherm\_27:

(Start: 2 @21148 has 105 MA's), (22, 21229), (32, 21277), (35, 21298), (36, 21307), (37, 21310), (42, 21343), (51, 21421), (53, 21451), (56, 21463), (57, 21478), (62, 21583), (64, 21604), (71, 21661), (74, 21691), (80, 21781), (84, 21799), (85, 21802), (96, 21919), (100, 21943), (103, 21994), (106, 22009), (125, 22096),

Gene: Bodacious\_17 Start: 15562, Stop: 16605, Start Num: 2

Candidate Starts for Bodacious\_17:

(Start: 2 @15562 has 105 MA's), (24, 15670), (37, 15754), (51, 15862), (59, 15937), (76, 16156), (78, 16195), (81, 16225), (85, 16246), (90, 16285), (95, 16348), (99, 16384), (100, 16387), (107, 16456), (108, 16468), (109, 16477), (111, 16495), (115, 16507), (123, 16549),

Gene: BrotherBLo\_21 Start: 17148, Stop: 18155, Start Num: 2

Candidate Starts for BrotherBLo\_21:

(Start: 2 @17148 has 105 MA's), (15, 17208), (24, 17256), (26, 17268), (37, 17340), (40, 17364), (59, 17523), (64, 17631), (71, 17697), (76, 17751), (77, 17784), (84, 17841), (85, 17844), (90, 17883), (95, 17946), (96, 17961), (97, 17970), (99, 17982), (100, 17985), (108, 18066), (109, 18075), (118, 18117),

Gene: CallieOMalley\_21 Start: 17196, Stop: 18206, Start Num: 2

Candidate Starts for CallieOMalley\_21:

(Start: 2 @17196 has 105 MA's), (Start: 3 @17202 has 1 MA's), (9, 17220), (24, 17298), (59, 17565), (62, 17652), (71, 17739), (74, 17769), (84, 17880), (90, 17922), (95, 17985), (100, 18024), (104, 18099), (107, 18111), (108, 18123), (118, 18174),

Gene: Canowicakte\_21 Start: 17231, Stop: 18241, Start Num: 2

Candidate Starts for Canowicakte\_21:

(Start: 2 @17231 has 105 MA's), (Start: 3 @17237 has 1 MA's), (9, 17255), (24, 17333), (59, 17600), (62, 17687), (71, 17774), (74, 17804), (84, 17915), (90, 17957), (95, 18020), (100, 18059), (104, 18134), (107, 18146), (108, 18158), (118, 18209),

Gene: Carpal\_21 Start: 17149, Stop: 18156, Start Num: 2

Candidate Starts for Carpal\_21:

(Start: 2 @17149 has 105 MA's), (15, 17209), (24, 17257), (26, 17269), (37, 17341), (40, 17365), (59, 17524), (71, 17698), (76, 17752), (77, 17785), (84, 17842), (85, 17845), (90, 17884), (95, 17947), (96, 17962), (97, 17971), (99, 17983), (100, 17986), (108, 18067), (109, 18076), (118, 18118),

Gene: ChewChew\_17 Start: 15561, Stop: 16604, Start Num: 2

Candidate Starts for ChewChew\_17:

(Start: 2 @15561 has 105 MA's), (9, 15591), (24, 15669), (37, 15753), (51, 15861), (59, 15936), (76, 16155), (78, 16194), (81, 16224), (85, 16245), (90, 16284), (95, 16347), (99, 16383), (100, 16386), (107, 16455), (108, 16467), (109, 16476), (111, 16494), (115, 16506), (123, 16548),

Gene: Cholula\_21 Start: 17194, Stop: 18201, Start Num: 2

Candidate Starts for Cholula\_21:

(Start: 2 @17194 has 105 MA's), (15, 17254), (24, 17302), (26, 17314), (37, 17386), (40, 17410), (59, 17569), (76, 17797), (77, 17830), (84, 17887), (85, 17890), (90, 17929), (95, 17992), (96, 18007), (97, 18016), (99, 18028), (100, 18031), (108, 18112), (109, 18121), (118, 18163),

Gene: Chridison\_17 Start: 15559, Stop: 16584, Start Num: 2

Candidate Starts for Chridison\_17:

(Start: 2 @15559 has 105 MA's), (24, 15667), (29, 15691), (37, 15751), (50, 15856), (51, 15859), (59, 15934), (71, 16099), (84, 16240), (88, 16273), (89, 16276), (90, 16282), (93, 16315), (95, 16345), (96, 16360), (100, 16384), (102, 16429), (107, 16453), (108, 16465), (109, 16474), (122, 16534), (129, 16567),

Gene: Christian\_17 Start: 15562, Stop: 16605, Start Num: 2

Candidate Starts for Christian\_17:

(Start: 2 @15562 has 105 MA's), (9, 15592), (24, 15670), (37, 15754), (51, 15862), (59, 15937), (76, 16156), (78, 16195), (85, 16246), (90, 16285), (95, 16348), (99, 16384), (100, 16387), (107, 16456), (108, 16468), (109, 16477), (111, 16495), (115, 16507), (123, 16549),

Gene: Cole\_26 Start: 20895, Stop: 21869, Start Num: 2

Candidate Starts for Cole\_26:

(Start: 2 @20895 has 105 MA's), (32, 21024), (35, 21045), (36, 21054), (37, 21057), (51, 21168), (53, 21198), (56, 21210), (57, 21225), (62, 21330), (64, 21351), (71, 21408), (74, 21438), (80, 21528), (84, 21546), (85, 21549), (86, 21570), (96, 21666), (100, 21690), (103, 21741), (106, 21756), (125, 21843),

Gene: Crewmate\_20 Start: 15561, Stop: 16601, Start Num: 10

Candidate Starts for Crewmate\_20:

(Start: 10 @15561 has 14 MA's), (23, 15618), (44, 15768), (53, 15846), (62, 15978), (71, 16065), (80, 16188), (84, 16206), (87, 16233), (103, 16404), (119, 16515),

Gene: CristinaYang\_17 Start: 15562, Stop: 16605, Start Num: 2

Candidate Starts for CristinaYang\_17:

(Start: 2 @15562 has 105 MA's), (24, 15670), (37, 15754), (51, 15862), (59, 15937), (76, 16156), (78, 16195), (81, 16225), (85, 16246), (90, 16285), (95, 16348), (99, 16384), (100, 16387), (107, 16456), (108, 16468), (109, 16477), (111, 16495), (115, 16507), (123, 16549),

Gene: Daiboju\_17 Start: 15567, Stop: 16598, Start Num: 2

Candidate Starts for Daiboju\_17:

(Start: 2 @15567 has 105 MA's), (12, 15615), (20, 15642), (24, 15675), (29, 15699), (37, 15759), (38, 15762), (59, 15942), (71, 16107), (82, 16230), (91, 16290), (95, 16350), (96, 16365), (100, 16389), (107, 16458), (111, 16497), (115, 16509),

Gene: Dino\_21 Start: 17147, Stop: 18154, Start Num: 2

Candidate Starts for Dino\_21:

(Start: 2 @17147 has 105 MA's), (15, 17207), (24, 17255), (26, 17267), (37, 17339), (59, 17522), (71, 17696), (76, 17750), (77, 17783), (84, 17840), (85, 17843), (90, 17882), (95, 17945), (96, 17960), (97, 17969), (99, 17981), (100, 17984), (108, 18065), (109, 18074), (118, 18116),

Gene: Dirdigger\_28 Start: 20968, Stop: 21942, Start Num: 2

Candidate Starts for Dirdigger\_28:

(Start: 2 @20968 has 105 MA's), (32, 21097), (35, 21118), (36, 21127), (37, 21130), (42, 21163), (43, 21169), (53, 21271), (56, 21283), (57, 21298), (62, 21403), (64, 21424), (71, 21481), (72, 21505), (84, 21619), (85, 21622), (103, 21814), (107, 21832),

Gene: Donatella\_27 Start: 21359, Stop: 22333, Start Num: 2

Candidate Starts for Donatella\_27:

(Start: 2 @21359 has 105 MA's), (35, 21509), (36, 21518), (37, 21521), (42, 21554), (51, 21632), (53, 21662), (56, 21674), (57, 21689), (62, 21794), (64, 21815), (71, 21872), (74, 21902), (80, 21992), (84, 22010), (85, 22013), (96, 22130), (100, 22154), (103, 22205), (106, 22220), (125, 22307),

Gene: DrManhattan\_19 Start: 15568, Stop: 16575, Start Num: 10

Candidate Starts for DrManhattan\_19:

(Start: 10 @15568 has 14 MA's), (23, 15625), (44, 15775), (58, 15886), (103, 16378),

Gene: DrRobert\_17 Start: 15562, Stop: 16605, Start Num: 2

Candidate Starts for DrRobert\_17:

(Start: 2 @15562 has 105 MA's), (24, 15670), (31, 15703), (37, 15754), (38, 15757), (51, 15862), (59, 15937), (76, 16156), (78, 16195), (81, 16225), (85, 16246), (90, 16285), (95, 16348), (99, 16384), (100, 16387), (107, 16456), (108, 16468), (109, 16477), (111, 16495), (115, 16507), (123, 16549),

Gene: DrSierra\_19 Start: 15659, Stop: 16663, Start Num: 10

Candidate Starts for DrSierra\_19:

(Start: 10 @15659 has 14 MA's), (23, 15716), (44, 15866), (47, 15896), (55, 15953), (72, 16151), (74, 16157), (84, 16268), (103, 16466),

Gene: DreamEater\_26 Start: 20583, Stop: 21521, Start Num: 2

Candidate Starts for DreamEater\_26:

(Start: 2 @20583 has 105 MA's), (16, 20631), (22, 20664), (35, 20733), (36, 20742), (37, 20745), (42, 20778), (53, 20886), (57, 20913), (61, 20949), (62, 21018), (64, 21039), (71, 21096), (74, 21126), (80, 21219), (84, 21237), (85, 21240), (93, 21315), (95, 21345), (100, 21384), (103, 21435), (106, 21450),

Gene: DreamTeam\_17 Start: 15601, Stop: 16638, Start Num: 2

Candidate Starts for DreamTeam\_17:

(Start: 2 @15601 has 105 MA's), (24, 15709), (29, 15733), (37, 15793), (38, 15796), (51, 15901), (59, 15976), (71, 16141), (85, 16285), (90, 16324), (95, 16387), (96, 16402), (100, 16426), (105, 16486), (108, 16507), (109, 16516), (111, 16534), (123, 16588),

Gene: Elesar\_27 Start: 21141, Stop: 22118, Start Num: 2

Candidate Starts for Elesar\_27:

(Start: 2 @21141 has 105 MA's), (32, 21270), (35, 21291), (36, 21300), (37, 21303), (43, 21342), (53, 21444), (56, 21456), (57, 21471), (62, 21576), (64, 21597), (71, 21654), (74, 21684), (79, 21762), (80, 21774), (84, 21792), (85, 21795), (100, 21939), (103, 21990), (106, 22005), (107, 22008), (125, 22092),

Gene: EstebanJulior\_17 Start: 15572, Stop: 16600, Start Num: 2

Candidate Starts for EstebanJulior\_17:

(Start: 2 @15572 has 105 MA's), (11, 15620), (20, 15650), (24, 15683), (37, 15767), (59, 15950), (71, 16115), (82, 16238), (88, 16286), (90, 16295), (95, 16358), (96, 16373), (100, 16397), (111, 16505), (112, 16508), (115, 16517),

Gene: Eunoia\_17 Start: 15558, Stop: 16583, Start Num: 2

Candidate Starts for Eunoia\_17:

(Start: 2 @15558 has 105 MA's), (24, 15666), (29, 15690), (37, 15750), (50, 15855), (51, 15858), (59, 15933), (71, 16098), (84, 16239), (88, 16272), (89, 16275), (90, 16281), (93, 16314), (95, 16344), (96, 16359), (100, 16383), (102, 16428), (107, 16452), (108, 16464), (109, 16473), (122, 16533), (129, 16566),

Gene: EvePickles\_27 Start: 20438, Stop: 21370, Start Num: 2

Candidate Starts for EvePickles\_27:

(Start: 2 @20438 has 105 MA's), (22, 20519), (35, 20588), (37, 20600), (47, 20693), (56, 20753), (57, 20768), (61, 20804), (62, 20873), (74, 20981), (80, 21071), (84, 21089), (85, 21092), (102, 21278), (103, 21284), (107, 21302),

Gene: Ezurina\_23 Start: 16879, Stop: 17883, Start Num: 8

Candidate Starts for Ezurina\_23:

(8, 16879), (20, 16936), (30, 16996), (31, 17002), (47, 17134), (48, 17137), (51, 17152), (63, 17305), (80, 17488), (84, 17506), (106, 17695), (111, 17737), (121, 17803), (128, 17854),

Gene: Faja\_27 Start: 20331, Stop: 21263, Start Num: 2

Candidate Starts for Faja\_27:

(Start: 2 @20331 has 105 MA's), (16, 20379), (32, 20460), (34, 20475), (35, 20481), (36, 20490), (37, 20493), (42, 20526), (53, 20634), (54, 20640), (57, 20661), (61, 20697), (74, 20874), (82, 20967), (84, 20982), (93, 21057), (103, 21177), (106, 21192),

Gene: Fluke\_21 Start: 17190, Stop: 18197, Start Num: 2

Candidate Starts for Fluke\_21:

(Start: 2 @17190 has 105 MA's), (15, 17250), (24, 17298), (26, 17310), (37, 17382), (59, 17565), (71, 17739), (76, 17793), (77, 17826), (84, 17883), (85, 17886), (90, 17925), (95, 17988), (96, 18003), (97, 18012), (99, 18024), (100, 18027), (108, 18108), (109, 18117), (118, 18159),

Gene: GUPitcher\_25 Start: 20004, Stop: 20939, Start Num: 2

Candidate Starts for GUPitcher\_25:

(Start: 2 @20004 has 105 MA's), (37, 20166), (42, 20199), (43, 20205), (47, 20259), (53, 20307), (57, 20334), (59, 20352), (62, 20439), (64, 20460), (71, 20517), (84, 20655), (85, 20658), (93, 20733), (100, 20802), (103, 20853), (106, 20868), (107, 20871),

Gene: Gibbzilla\_27 Start: 18060, Stop: 19064, Start Num: 2

Candidate Starts for Gibbzilla\_27:

(Start: 2 @18060 has 105 MA's), (19, 18117), (37, 18222), (42, 18255), (45, 18285), (47, 18315), (53, 18363), (54, 18369), (57, 18390), (61, 18426), (62, 18495), (71, 18573), (84, 18714), (90, 18756), (101, 18879), (111, 18966),

Gene: Gisselle\_17 Start: 15601, Stop: 16638, Start Num: 2

Candidate Starts for Gisselle\_17:

(Start: 2 @15601 has 105 MA's), (24, 15709), (29, 15733), (37, 15793), (38, 15796), (51, 15901), (59, 15976), (71, 16141), (85, 16285), (90, 16324), (95, 16387), (96, 16402), (100, 16426), (105, 16486), (108, 16507), (109, 16516), (111, 16534), (123, 16588),

Gene: Glenn\_21 Start: 17199, Stop: 18206, Start Num: 2

Candidate Starts for Glenn\_21:

(Start: 2 @17199 has 105 MA's), (15, 17259), (24, 17307), (26, 17319), (37, 17391), (40, 17415), (59, 17574), (64, 17682), (71, 17748), (76, 17802), (77, 17835), (84, 17892), (85, 17895), (90, 17934), (95, 17997), (96, 18012), (97, 18021), (99, 18033), (100, 18036), (108, 18117), (109, 18126), (118, 18168),

Gene: GoodLuckBabe\_28 Start: 21504, Stop: 22451, Start Num: 2

Candidate Starts for GoodLuckBabe\_28:

(Start: 2 @21504 has 105 MA's), (7, 21513), (27, 21603), (32, 21627), (37, 21660), (43, 21699), (47, 21753), (53, 21801), (54, 21807), (56, 21813), (57, 21828), (59, 21846), (62, 21933), (71, 22011), (74, 22041), (80, 22131), (84, 22149), (85, 22152), (100, 22293), (103, 22344), (106, 22359), (107, 22362),

Gene: Graynor\_21 Start: 17223, Stop: 18227, Start Num: 3

Candidate Starts for Graynor\_21:

(Start: 2 @17217 has 105 MA's), (Start: 3 @17223 has 1 MA's), (24, 17319), (59, 17586), (62, 17673), (74, 17790), (84, 17901), (88, 17934), (90, 17943), (95, 18006), (100, 18045), (104, 18120), (107, 18132), (108, 18144),

Gene: GreenHearts\_21 Start: 17285, Stop: 18310, Start Num: 2

Candidate Starts for GreenHearts\_21:

(Start: 2 @17285 has 105 MA's), (24, 17393), (29, 17417), (33, 17444), (37, 17477), (59, 17660), (69, 17825), (71, 17861), (82, 17987), (85, 18005), (88, 18035), (90, 18044), (92, 18074), (95, 18107), (96, 18122), (99, 18143), (100, 18146), (108, 18227), (109, 18236),

Gene: Greenhouse\_21 Start: 17209, Stop: 18234, Start Num: 2

Candidate Starts for Greenhouse\_21:

(Start: 2 @17209 has 105 MA's), (24, 17317), (29, 17341), (33, 17368), (37, 17401), (59, 17584), (82, 17911), (85, 17929), (88, 17959), (90, 17968), (92, 17998), (95, 18031), (96, 18046), (99, 18067), (100, 18070), (108, 18151), (109, 18160),

Gene: Guinevere\_28 Start: 21094, Stop: 22041, Start Num: 2

Candidate Starts for Guinevere\_28:

(Start: 2 @21094 has 105 MA's), (7, 21103), (27, 21193), (32, 21217), (37, 21250), (43, 21289), (47, 21343), (53, 21391), (54, 21397), (56, 21403), (57, 21418), (59, 21436), (62, 21523), (71, 21601), (74, 21631), (80, 21721), (84, 21739), (85, 21742), (100, 21883), (103, 21934), (106, 21949), (107, 21952),

Gene: Gusanita\_26 Start: 20850, Stop: 21803, Start Num: 2

Candidate Starts for Gusanita\_26:

(Start: 2 @20850 has 105 MA's), (20, 20910), (37, 21012), (42, 21045), (43, 21051), (53, 21153), (56, 21165), (57, 21180), (59, 21198), (62, 21285), (71, 21363), (72, 21387), (74, 21393), (80, 21483), (84, 21501), (85, 21504), (100, 21645), (103, 21696), (106, 21711), (107, 21714),

Gene: Halloweekend\_26 Start: 20774, Stop: 21748, Start Num: 2

Candidate Starts for Halloweekend\_26:

(Start: 2 @20774 has 105 MA's), (22, 20855), (32, 20903), (35, 20924), (36, 20933), (37, 20936), (51, 21047), (53, 21077), (56, 21089), (57, 21104), (62, 21209), (64, 21230), (71, 21287), (74, 21317), (80, 21407), (84, 21425), (85, 21428), (96, 21545), (100, 21569), (103, 21620), (106, 21635), (125, 21722),

Gene: HeadNerd\_17 Start: 15564, Stop: 16598, Start Num: 2

Candidate Starts for HeadNerd\_17:

(Start: 2 @15564 has 105 MA's), (24, 15672), (37, 15756), (38, 15759), (53, 15894), (59, 15939), (62, 16026), (71, 16104), (82, 16227), (84, 16242), (95, 16347), (96, 16362), (100, 16386), (111, 16494), (115, 16506), (123, 16548),

Gene: Herb\_17 Start: 15567, Stop: 16598, Start Num: 2

Candidate Starts for Herb\_17:

(Start: 2 @15567 has 105 MA's), (12, 15615), (20, 15642), (24, 15675), (29, 15699), (37, 15759), (38, 15762), (59, 15942), (71, 16107), (82, 16230), (91, 16290), (95, 16350), (96, 16365), (100, 16389), (107, 16458), (111, 16497), (115, 16509),

Gene: Huckleberry\_17 Start: 15564, Stop: 16598, Start Num: 2

Candidate Starts for Huckleberry\_17:

(Start: 2 @15564 has 105 MA's), (24, 15672), (37, 15756), (38, 15759), (53, 15894), (59, 15939), (62, 16026), (71, 16104), (82, 16227), (84, 16242), (95, 16347), (96, 16362), (100, 16386), (111, 16494), (115, 16506), (123, 16548),

Gene: HunterDalle\_17 Start: 15558, Stop: 16583, Start Num: 2

Candidate Starts for HunterDalle\_17:

(Start: 2 @15558 has 105 MA's), (24, 15666), (29, 15690), (37, 15750), (51, 15858), (59, 15933), (71, 16098), (84, 16239), (89, 16275), (90, 16281), (93, 16314), (95, 16344), (96, 16359), (100, 16383),

(102, 16428), (107, 16452), (108, 16464), (109, 16473), (122, 16533), (129, 16566),

Gene: Huntingdon\_21 Start: 17195, Stop: 18202, Start Num: 2

Candidate Starts for Huntingdon\_21:

(Start: 2 @17195 has 105 MA's), (24, 17303), (33, 17354), (37, 17387), (38, 17390), (59, 17570), (69, 17717), (74, 17783), (77, 17840), (82, 17879), (84, 17894), (85, 17897), (88, 17927), (92, 17966), (95, 17999), (96, 18014), (100, 18038), (108, 18119), (109, 18128), (118, 18170), (120, 18179),

Gene: Ichiang\_26 Start: 20793, Stop: 21767, Start Num: 2

Candidate Starts for Ichiang\_26:

(Start: 2 @20793 has 105 MA's), (32, 20922), (35, 20943), (36, 20952), (37, 20955), (51, 21066), (53, 21096), (56, 21108), (57, 21123), (62, 21228), (71, 21306), (74, 21336), (80, 21426), (84, 21444), (85, 21447), (96, 21564), (100, 21588), (103, 21639), (106, 21654), (125, 21741),

Gene: Immaculata\_21 Start: 17193, Stop: 18200, Start Num: 2

Candidate Starts for Immaculata\_21:

(Start: 2 @17193 has 105 MA's), (15, 17253), (24, 17301), (26, 17313), (37, 17385), (40, 17409), (59, 17568), (76, 17796), (77, 17829), (84, 17886), (85, 17889), (90, 17928), (95, 17991), (96, 18006), (97, 18015), (99, 18027), (100, 18030), (108, 18111), (109, 18120), (118, 18162),

Gene: IsHungry\_28 Start: 21392, Stop: 22369, Start Num: 1

Candidate Starts for IsHungry\_28:

(Start: 1 @21392 has 1 MA's), (32, 21524), (37, 21557), (42, 21590), (43, 21596), (53, 21698), (56, 21710), (57, 21725), (59, 21743), (62, 21830), (71, 21908), (74, 21938), (80, 22028), (83, 22037), (84, 22046), (85, 22049), (98, 22178), (103, 22241), (106, 22256),

Gene: IttyBittyPiggy\_19 Start: 15653, Stop: 16660, Start Num: 10

Candidate Starts for IttyBittyPiggy\_19:

(Start: 10 @15653 has 14 MA's), (23, 15710), (44, 15860), (45, 15863), (47, 15890),

Gene: Joann\_21 Start: 17189, Stop: 18214, Start Num: 2

Candidate Starts for Joann\_21:

(Start: 2 @17189 has 105 MA's), (24, 17297), (29, 17321), (33, 17348), (37, 17381), (59, 17564), (71, 17765), (82, 17891), (85, 17909), (88, 17939), (90, 17948), (92, 17978), (95, 18011), (96, 18026), (99, 18047), (100, 18050), (108, 18131), (109, 18140),

Gene: Julie\_28 Start: 21546, Stop: 22520, Start Num: 2

Candidate Starts for Julie\_28:

(Start: 2 @21546 has 105 MA's), (17, 21597), (32, 21675), (35, 21696), (36, 21705), (37, 21708), (42, 21741), (43, 21747), (47, 21801), (53, 21849), (57, 21876), (62, 21981), (64, 22002), (71, 22059), (72, 22083), (80, 22179), (84, 22197), (85, 22200), (103, 22392), (107, 22410),

Gene: Jumboset\_21 Start: 17142, Stop: 18149, Start Num: 2

Candidate Starts for Jumboset\_21:

(Start: 2 @17142 has 105 MA's), (15, 17202), (24, 17250), (26, 17262), (37, 17334), (40, 17358), (59, 17517), (71, 17691), (76, 17745), (77, 17778), (84, 17835), (85, 17838), (90, 17877), (95, 17940), (96, 17955), (97, 17964), (99, 17976), (100, 17979), (108, 18060), (109, 18069), (118, 18111),

Gene: Kalizoi\_21 Start: 17141, Stop: 18148, Start Num: 2

Candidate Starts for Kalizoi\_21:

(Start: 2 @17141 has 105 MA's), (15, 17201), (24, 17249), (26, 17261), (37, 17333), (59, 17516), (71, 17690), (76, 17744), (77, 17777), (84, 17834), (85, 17837), (90, 17876), (95, 17939), (96, 17954), (97, 17963), (99, 17975), (100, 17978), (108, 18059), (109, 18068), (118, 18110),

Gene: KeAlii\_19 Start: 15122, Stop: 16168, Start Num: 10

Candidate Starts for KeAlii\_19:

(Start: 10 @15122 has 14 MA's), (23, 15182), (44, 15332), (54, 15416), (74, 15659), (80, 15752), (87, 15797), (103, 15968), (110, 16016), (114, 16034), (127, 16142),

Gene: Kihatsu\_29 Start: 21419, Stop: 22387, Start Num: 2

Candidate Starts for Kihatsu\_29:

(Start: 2 @21419 has 105 MA's), (7, 21428), (27, 21518), (32, 21542), (37, 21575), (43, 21614), (47, 21668), (53, 21716), (54, 21722), (56, 21728), (57, 21743), (59, 21761), (62, 21848), (71, 21926), (72, 21950), (74, 21956), (80, 22046), (84, 22064), (85, 22067), (100, 22208), (103, 22259), (106, 22274), (107, 22277),

Gene: KingBob\_17 Start: 15567, Stop: 16598, Start Num: 2

Candidate Starts for KingBob\_17:

(Start: 2 @15567 has 105 MA's), (12, 15615), (20, 15642), (24, 15675), (29, 15699), (37, 15759), (38, 15762), (59, 15942), (71, 16107), (82, 16230), (91, 16290), (95, 16350), (96, 16365), (100, 16389), (107, 16458), (111, 16497), (115, 16509),

Gene: Kittykat\_17 Start: 15585, Stop: 16622, Start Num: 2

Candidate Starts for Kittykat\_17:

(Start: 2 @15585 has 105 MA's), (24, 15693), (29, 15717), (37, 15777), (38, 15780), (51, 15885), (59, 15960), (71, 16125), (85, 16269), (90, 16308), (95, 16371), (96, 16386), (100, 16410), (105, 16470), (108, 16491), (109, 16500), (111, 16518), (123, 16572),

Gene: Korra\_22 Start: 17147, Stop: 18154, Start Num: 2

Candidate Starts for Korra\_22:

(Start: 2 @17147 has 105 MA's), (15, 17207), (24, 17255), (26, 17267), (37, 17339), (59, 17522), (76, 17750), (77, 17783), (84, 17840), (85, 17843), (90, 17882), (95, 17945), (96, 17960), (97, 17969), (99, 17981), (100, 17984), (108, 18065), (109, 18074), (118, 18116),

Gene: Kukla\_25 Start: 19824, Stop: 20756, Start Num: 2

Candidate Starts for Kukla\_25:

(Start: 2 @19824 has 105 MA's), (35, 19974), (36, 19983), (37, 19986), (42, 20019), (47, 20079), (54, 20133), (57, 20154), (62, 20259), (80, 20457), (84, 20475), (85, 20478), (99, 20616), (103, 20670), (106, 20685), (107, 20688),

Gene: Lakshmi\_21 Start: 17214, Stop: 18239, Start Num: 2

Candidate Starts for Lakshmi\_21:

(Start: 2 @17214 has 105 MA's), (24, 17322), (29, 17346), (33, 17373), (37, 17406), (59, 17589), (71, 17790), (82, 17916), (85, 17934), (90, 17973), (92, 18003), (95, 18036), (96, 18051), (99, 18072), (100, 18075), (108, 18156), (109, 18165),

Gene: Lasagna\_17 Start: 15562, Stop: 16605, Start Num: 2

Candidate Starts for Lasagna\_17:

(Start: 2 @15562 has 105 MA's), (24, 15670), (37, 15754), (51, 15862), (59, 15937), (76, 16156), (78, 16195), (85, 16246), (90, 16285), (95, 16348), (99, 16384), (100, 16387), (107, 16456), (108, 16468), (109, 16477), (111, 16495), (115, 16507), (123, 16549),

Gene: Lennox\_17 Start: 15550, Stop: 16593, Start Num: 2

Candidate Starts for Lennox\_17:

(Start: 2 @15550 has 105 MA's), (24, 15658), (37, 15742), (51, 15850), (59, 15925), (76, 16144), (78, 16183), (81, 16213), (85, 16234), (90, 16273), (95, 16336), (99, 16372), (100, 16375), (107, 16444),

(108, 16456), (109, 16465), (111, 16483), (115, 16495), (123, 16537),

Gene: Lenoxika\_28 Start: 21090, Stop: 22037, Start Num: 2

Candidate Starts for Lenoxika\_28:

(Start: 2 @21090 has 105 MA's), (7, 21099), (20, 21144), (27, 21189), (32, 21213), (37, 21246), (43, 21285), (47, 21339), (53, 21387), (56, 21399), (57, 21414), (59, 21432), (62, 21519), (71, 21597), (74, 21627), (80, 21717), (84, 21735), (85, 21738), (100, 21879), (103, 21930), (106, 21945), (107, 21948),

Gene: LilStuart\_17 Start: 15550, Stop: 16593, Start Num: 2

Candidate Starts for LilStuart\_17:

(Start: 2 @15550 has 105 MA's), (24, 15658), (37, 15742), (51, 15850), (59, 15925), (76, 16144), (78, 16183), (81, 16213), (85, 16234), (90, 16273), (95, 16336), (99, 16372), (100, 16375), (107, 16444), (108, 16456), (109, 16465), (111, 16483), (115, 16495), (123, 16537),

Gene: Litotes\_21 Start: 17187, Stop: 18191, Start Num: 3

Candidate Starts for Litotes\_21:

(Start: 2 @17181 has 105 MA's), (Start: 3 @17187 has 1 MA's), (24, 17283), (59, 17550), (62, 17637), (71, 17724), (74, 17754), (84, 17865), (90, 17907), (95, 17970), (100, 18009), (104, 18084), (107, 18096), (108, 18108), (118, 18159),

Gene: Lucy\_17 Start: 15542, Stop: 16585, Start Num: 2

Candidate Starts for Lucy\_17:

(Start: 2 @15542 has 105 MA's), (24, 15650), (37, 15734), (51, 15842), (59, 15917), (76, 16136), (78, 16175), (81, 16205), (85, 16226), (90, 16265), (95, 16328), (99, 16364), (100, 16367), (107, 16436), (108, 16448), (109, 16457), (111, 16475), (115, 16487), (123, 16529),

Gene: Makoto\_17 Start: 15563, Stop: 16606, Start Num: 2

Candidate Starts for Makoto\_17:

(Start: 2 @15563 has 105 MA's), (24, 15671), (37, 15755), (51, 15863), (59, 15938), (76, 16157), (78, 16196), (85, 16247), (90, 16286), (95, 16349), (99, 16385), (100, 16388), (107, 16457), (108, 16469), (109, 16478), (111, 16496), (115, 16508), (123, 16550),

Gene: MamaPearl\_17 Start: 15572, Stop: 16600, Start Num: 2

Candidate Starts for MamaPearl\_17:

(Start: 2 @15572 has 105 MA's), (11, 15620), (20, 15650), (24, 15683), (37, 15767), (59, 15950), (71, 16115), (82, 16238), (88, 16286), (90, 16295), (95, 16358), (96, 16373), (100, 16397), (111, 16505), (112, 16508), (115, 16517),

Gene: Maria1952\_17 Start: 15567, Stop: 16598, Start Num: 2

Candidate Starts for Maria1952\_17:

(Start: 2 @15567 has 105 MA's), (12, 15615), (20, 15642), (24, 15675), (29, 15699), (37, 15759), (38, 15762), (59, 15942), (71, 16107), (82, 16230), (91, 16290), (95, 16350), (96, 16365), (100, 16389), (107, 16458), (111, 16497), (115, 16509),

Gene: MeganNoll\_21 Start: 17199, Stop: 18206, Start Num: 2

Candidate Starts for MeganNoll\_21:

(Start: 2 @17199 has 105 MA's), (15, 17259), (24, 17307), (26, 17319), (37, 17391), (40, 17415), (59, 17574), (64, 17682), (71, 17748), (76, 17802), (77, 17835), (84, 17892), (85, 17895), (90, 17934), (95, 17997), (96, 18012), (97, 18021), (99, 18033), (100, 18036), (108, 18117), (109, 18126), (118, 18168),

Gene: MillySue\_28 Start: 20964, Stop: 21938, Start Num: 2

Candidate Starts for MillySue\_28:

(Start: 2 @20964 has 105 MA's), (32, 21093), (35, 21114), (36, 21123), (37, 21126), (42, 21159), (43, 21165), (47, 21219), (53, 21267), (54, 21273), (57, 21294), (62, 21399), (74, 21507), (80, 21597), (84, 21615), (85, 21618), (93, 21690), (100, 21759), (102, 21804), (103, 21810), (106, 21825), (107, 21828), (125, 21912),

Gene: Misaeng\_21 Start: 17259, Stop: 18284, Start Num: 2

Candidate Starts for Misaeng\_21:

(Start: 2 @17259 has 105 MA's), (24, 17367), (33, 17418), (37, 17451), (38, 17454), (59, 17634), (62, 17721), (71, 17835), (82, 17961), (85, 17979), (88, 18009), (90, 18018), (95, 18081), (100, 18120), (104, 18177), (108, 18201), (109, 18210),

Gene: MissSwiss\_19 Start: 15610, Stop: 16614, Start Num: 10

Candidate Starts for MissSwiss\_19:

(Start: 10 @15610 has 14 MA's), (23, 15667), (45, 15820), (47, 15847), (66, 16027), (80, 16201), (84, 16219), (87, 16246), (94, 16300),

Gene: Moki\_17 Start: 15564, Stop: 16598, Start Num: 2

Candidate Starts for Moki\_17:

(Start: 2 @15564 has 105 MA's), (24, 15672), (37, 15756), (38, 15759), (53, 15894), (59, 15939), (62, 16026), (71, 16104), (82, 16227), (84, 16242), (95, 16347), (96, 16362), (100, 16386), (111, 16494), (115, 16506), (123, 16548),

Gene: MrBoss\_21 Start: 17187, Stop: 18191, Start Num: 3

Candidate Starts for MrBoss\_21:

(Start: 2 @17181 has 105 MA's), (Start: 3 @17187 has 1 MA's), (9, 17205), (24, 17283), (59, 17550), (62, 17637), (71, 17724), (74, 17754), (84, 17865), (90, 17907), (95, 17970), (104, 18084), (107, 18096), (108, 18108), (118, 18159),

Gene: MrGloopy\_21 Start: 17133, Stop: 18140, Start Num: 2

Candidate Starts for MrGloopy\_21:

(Start: 2 @17133 has 105 MA's), (15, 17193), (24, 17241), (26, 17253), (37, 17325), (40, 17349), (59, 17508), (64, 17616), (71, 17682), (76, 17736), (77, 17769), (84, 17826), (85, 17829), (90, 17868), (95, 17931), (96, 17946), (97, 17955), (99, 17967), (100, 17970), (108, 18051), (109, 18060), (118, 18102),

Gene: Nancia\_17 Start: 15562, Stop: 16605, Start Num: 2

Candidate Starts for Nancia\_17:

(Start: 2 @15562 has 105 MA's), (24, 15670), (37, 15754), (51, 15862), (59, 15937), (76, 16156), (78, 16195), (81, 16225), (85, 16246), (90, 16285), (95, 16348), (99, 16384), (100, 16387), (107, 16456), (108, 16468), (109, 16477), (111, 16495), (115, 16507), (123, 16549),

Gene: Nandita\_28 Start: 21094, Stop: 22041, Start Num: 2

Candidate Starts for Nandita\_28:

(Start: 2 @21094 has 105 MA's), (7, 21103), (27, 21193), (32, 21217), (37, 21250), (43, 21289), (47, 21343), (53, 21391), (54, 21397), (56, 21403), (57, 21418), (59, 21436), (62, 21523), (71, 21601), (74, 21631), (80, 21721), (84, 21739), (85, 21742), (100, 21883), (103, 21934), (106, 21949), (107, 21952),

Gene: Nubia\_21 Start: 17174, Stop: 18199, Start Num: 2

Candidate Starts for Nubia\_21:

(Start: 2 @17174 has 105 MA's), (24, 17282), (29, 17306), (33, 17333), (37, 17366), (59, 17549), (71, 17750), (82, 17876), (85, 17894), (90, 17933), (92, 17963), (95, 17996), (96, 18011), (99, 18032), (100, 18035), (108, 18116), (109, 18125),

Gene: OMalley\_17 Start: 15558, Stop: 16583, Start Num: 2

Candidate Starts for OMalley\_17:

(Start: 2 @15558 has 105 MA's), (24, 15666), (29, 15690), (37, 15750), (50, 15855), (51, 15858), (59, 15933), (71, 16098), (84, 16239), (88, 16272), (89, 16275), (90, 16281), (93, 16314), (95, 16344), (96, 16359), (100, 16383), (102, 16428), (107, 16452), (108, 16464), (109, 16473), (122, 16533), (129, 16566),

Gene: ObiToo\_19 Start: 15298, Stop: 16338, Start Num: 10

Candidate Starts for ObiToo\_19:

(Start: 10 @15298 has 14 MA's), (23, 15355), (44, 15505), (53, 15583), (62, 15715), (71, 15802), (80, 15925), (84, 15943), (87, 15970), (103, 16141), (119, 16252),

Gene: OurGirlNessie\_17 Start: 15542, Stop: 16585, Start Num: 2

Candidate Starts for OurGirlNessie\_17:

(Start: 2 @15542 has 105 MA's), (24, 15650), (37, 15734), (51, 15842), (59, 15917), (76, 16136), (78, 16175), (85, 16226), (90, 16265), (95, 16328), (99, 16364), (100, 16367), (107, 16436), (108, 16448), (109, 16457), (111, 16475), (115, 16487), (123, 16529),

Gene: Oxynfrius\_21 Start: 17187, Stop: 18212, Start Num: 2

Candidate Starts for Oxynfrius\_21:

(Start: 2 @17187 has 105 MA's), (24, 17295), (29, 17319), (33, 17346), (37, 17379), (59, 17562), (71, 17763), (82, 17889), (85, 17907), (90, 17946), (92, 17976), (95, 18009), (96, 18024), (99, 18045), (100, 18048), (108, 18129), (109, 18138),

Gene: PandaPo\_19 Start: 15610, Stop: 16614, Start Num: 10

Candidate Starts for PandaPo\_19:

(Start: 10 @15610 has 14 MA's), (23, 15667), (45, 15820), (47, 15847), (66, 16027), (80, 16201), (84, 16219), (87, 16246), (94, 16300),

Gene: PartyCup\_21 Start: 17228, Stop: 18238, Start Num: 2

Candidate Starts for PartyCup\_21:

(Start: 2 @17228 has 105 MA's), (Start: 3 @17234 has 1 MA's), (6, 17240), (24, 17330), (59, 17597), (62, 17684), (71, 17771), (74, 17801), (84, 17912), (90, 17954), (95, 18017), (100, 18056), (104, 18131), (107, 18143), (108, 18155), (118, 18206),

Gene: PetriParty\_26 Start: 20691, Stop: 21629, Start Num: 2

Candidate Starts for PetriParty\_26:

(Start: 2 @20691 has 105 MA's), (37, 20853), (42, 20886), (53, 20994), (56, 21006), (57, 21021), (59, 21039), (62, 21126), (64, 21147), (71, 21204), (74, 21234), (80, 21327), (84, 21345), (85, 21348), (93, 21423), (95, 21453), (100, 21492), (103, 21543), (106, 21558), (107, 21561),

Gene: PinkFriday\_17 Start: 15588, Stop: 16619, Start Num: 2

Candidate Starts for PinkFriday\_17:

(Start: 2 @15588 has 105 MA's), (12, 15636), (24, 15696), (37, 15780), (45, 15843), (54, 15924), (59, 15963), (62, 16050), (74, 16158), (85, 16275), (90, 16314), (95, 16377), (96, 16392), (99, 16413), (107, 16485), (108, 16497), (109, 16506),

Gene: PitaDog\_17 Start: 15553, Stop: 16596, Start Num: 2

Candidate Starts for PitaDog\_17:

(Start: 2 @15553 has 105 MA's), (9, 15583), (24, 15661), (37, 15745), (51, 15853), (59, 15928), (76, 16147), (78, 16186), (81, 16216), (85, 16237), (90, 16276), (95, 16339), (99, 16375), (100, 16378), (107, 16447), (108, 16459), (109, 16468), (111, 16486), (115, 16498), (123, 16540),

Gene: Popper\_26 Start: 20999, Stop: 21952, Start Num: 2

Candidate Starts for Popper\_26:

(Start: 2 @20999 has 105 MA's), (22, 21080), (37, 21161), (43, 21200), (53, 21302), (56, 21314), (57, 21329), (59, 21347), (71, 21512), (80, 21632), (84, 21650), (85, 21653), (96, 21770), (103, 21845), (106, 21860), (107, 21863),

Gene: Potatoes\_21 Start: 17194, Stop: 18201, Start Num: 2

Candidate Starts for Potatoes\_21:

(Start: 2 @17194 has 105 MA's), (15, 17254), (24, 17302), (26, 17314), (37, 17386), (40, 17410), (59, 17569), (76, 17797), (77, 17830), (84, 17887), (85, 17890), (90, 17929), (95, 17992), (96, 18007), (97, 18016), (99, 18028), (100, 18031), (108, 18112), (109, 18121), (118, 18163),

Gene: Preamble\_17 Start: 15562, Stop: 16599, Start Num: 2

Candidate Starts for Preamble\_17:

(Start: 2 @15562 has 105 MA's), (24, 15670), (29, 15694), (37, 15754), (38, 15757), (51, 15862), (59, 15937), (71, 16102), (85, 16246), (90, 16285), (95, 16348), (96, 16363), (100, 16387), (105, 16447), (108, 16468), (109, 16477), (111, 16495), (123, 16549),

Gene: Pterodactyl\_17 Start: 15543, Stop: 16586, Start Num: 2

Candidate Starts for Pterodactyl\_17:

(Start: 2 @15543 has 105 MA's), (24, 15651), (37, 15735), (51, 15843), (59, 15918), (76, 16137), (78, 16176), (85, 16227), (90, 16266), (95, 16329), (99, 16365), (100, 16368), (107, 16437), (108, 16449), (109, 16458), (111, 16476), (115, 16488), (123, 16530),

Gene: Pumancara\_17 Start: 15569, Stop: 16600, Start Num: 2

Candidate Starts for Pumancara\_17:

(Start: 2 @15569 has 105 MA's), (12, 15617), (20, 15644), (24, 15677), (29, 15701), (37, 15761), (38, 15764), (59, 15944), (74, 16139), (82, 16232), (91, 16292), (95, 16352), (96, 16367), (100, 16391), (107, 16460), (111, 16499), (115, 16511),

Gene: QuinnAvery\_28 Start: 21157, Stop: 22131, Start Num: 2

Candidate Starts for QuinnAvery\_28:

(Start: 2 @21157 has 105 MA's), (22, 21238), (32, 21286), (35, 21307), (36, 21316), (37, 21319), (51, 21430), (53, 21460), (56, 21472), (57, 21487), (62, 21592), (64, 21613), (71, 21670), (74, 21700), (80, 21790), (84, 21808), (85, 21811), (96, 21928), (100, 21952), (103, 22003), (106, 22018), (125, 22105),

Gene: RAP15\_21 Start: 17199, Stop: 18206, Start Num: 2

Candidate Starts for RAP15\_21:

(Start: 2 @17199 has 105 MA's), (15, 17259), (24, 17307), (26, 17319), (37, 17391), (40, 17415), (59, 17574), (64, 17682), (71, 17748), (76, 17802), (77, 17835), (84, 17892), (85, 17895), (90, 17934), (95, 17997), (96, 18012), (97, 18021), (99, 18033), (100, 18036), (108, 18117), (109, 18126), (118, 18168),

Gene: RcigaStruga\_21 Start: 17195, Stop: 18202, Start Num: 2

Candidate Starts for RcigaStruga\_21:

(Start: 2 @17195 has 105 MA's), (24, 17303), (33, 17354), (37, 17387), (38, 17390), (59, 17570), (69, 17717), (74, 17783), (77, 17840), (82, 17879), (84, 17894), (85, 17897), (88, 17927), (92, 17966), (95, 17999), (96, 18014), (100, 18038), (108, 18119), (109, 18128), (118, 18170), (120, 18179),

Gene: Reedo\_19 Start: 15141, Stop: 16175, Start Num: 10

Candidate Starts for Reedo\_19:

(Start: 10 @15141 has 14 MA's), (23, 15198), (39, 15294), (54, 15432), (57, 15453), (70, 15615), (84, 15786), (95, 15894), (103, 15984), (127, 16155),

Gene: Riovina\_17 Start: 15558, Stop: 16583, Start Num: 2

Candidate Starts for Riovina\_17:

(Start: 2 @15558 has 105 MA's), (24, 15666), (29, 15690), (37, 15750), (50, 15855), (51, 15858), (59, 15933), (71, 16098), (84, 16239), (88, 16272), (89, 16275), (90, 16281), (93, 16314), (95, 16344), (96, 16359), (100, 16383), (102, 16428), (107, 16452), (108, 16464), (109, 16473), (122, 16533), (129, 16566),

Gene: Riverdale\_21 Start: 17129, Stop: 18136, Start Num: 2

Candidate Starts for Riverdale\_21:

(Start: 2 @17129 has 105 MA's), (15, 17189), (24, 17237), (26, 17249), (37, 17321), (40, 17345), (59, 17504), (76, 17732), (77, 17765), (84, 17822), (85, 17825), (90, 17864), (95, 17927), (96, 17942), (97, 17951), (99, 17963), (100, 17966), (108, 18047), (109, 18056), (118, 18098),

Gene: Rozby\_21 Start: 17130, Stop: 18137, Start Num: 2

Candidate Starts for Rozby\_21:

(Start: 2 @17130 has 105 MA's), (15, 17190), (24, 17238), (26, 17250), (37, 17322), (40, 17346), (59, 17505), (76, 17733), (77, 17766), (84, 17823), (85, 17826), (90, 17865), (95, 17928), (96, 17943), (97, 17952), (99, 17964), (100, 17967), (108, 18048), (109, 18057), (118, 18099),

Gene: Ryan\_28 Start: 21684, Stop: 22652, Start Num: 2

Candidate Starts for Ryan\_28:

(Start: 2 @21684 has 105 MA's), (7, 21693), (27, 21783), (32, 21807), (37, 21840), (43, 21879), (47, 21933), (53, 21981), (54, 21987), (56, 21993), (57, 22008), (59, 22026), (62, 22113), (71, 22191), (72, 22215), (74, 22221), (80, 22311), (84, 22329), (85, 22332), (100, 22473), (103, 22524), (106, 22539), (107, 22542),

Gene: Saintcarr\_28 Start: 21240, Stop: 22214, Start Num: 2

Candidate Starts for Saintcarr\_28:

(Start: 2 @21240 has 105 MA's), (32, 21369), (35, 21390), (36, 21399), (37, 21402), (42, 21435), (53, 21543), (56, 21555), (64, 21696), (71, 21753), (74, 21783), (80, 21873), (84, 21891), (85, 21894), (96, 22011), (100, 22035), (103, 22086), (106, 22101), (125, 22188),

Gene: Sashimi\_28 Start: 20237, Stop: 21169, Start Num: 2

Candidate Starts for Sashimi\_28:

(Start: 2 @20237 has 105 MA's), (16, 20285), (32, 20366), (34, 20381), (35, 20387), (36, 20396), (37, 20399), (42, 20432), (53, 20540), (54, 20546), (57, 20567), (61, 20603), (74, 20780), (82, 20873), (84, 20888), (93, 20963), (103, 21083), (106, 21098),

Gene: Savage2526\_21 Start: 17193, Stop: 18200, Start Num: 2

Candidate Starts for Savage2526\_21:

(Start: 2 @17193 has 105 MA's), (15, 17253), (24, 17301), (26, 17313), (37, 17385), (40, 17409), (59, 17568), (64, 17676), (71, 17742), (76, 17796), (77, 17829), (84, 17886), (85, 17889), (90, 17928), (95, 17991), (96, 18006), (97, 18015), (99, 18027), (100, 18030), (108, 18111), (109, 18120), (118, 18162),

Gene: Schism\_28 Start: 21094, Stop: 22041, Start Num: 2

Candidate Starts for Schism\_28:

(Start: 2 @21094 has 105 MA's), (7, 21103), (27, 21193), (32, 21217), (37, 21250), (43, 21289), (47, 21343), (53, 21391), (54, 21397), (56, 21403), (57, 21418), (59, 21436), (62, 21523), (71, 21601), (74, 21631), (80, 21721), (84, 21739), (85, 21742), (100, 21883), (103, 21934), (106, 21949), (107, 21952),

Gene: Scuttle\_21 Start: 17198, Stop: 18205, Start Num: 2

Candidate Starts for Scuttle\_21:

(Start: 2 @17198 has 105 MA's), (15, 17258), (24, 17306), (26, 17318), (37, 17390), (40, 17414), (59, 17573), (76, 17801), (77, 17834), (84, 17891), (85, 17894), (90, 17933), (95, 17996), (96, 18011), (97,

18020), (99, 18032), (100, 18035), (108, 18116), (109, 18125), (118, 18167),

Gene: Sergei\_17 Start: 15567, Stop: 16598, Start Num: 2

Candidate Starts for Sergei\_17:

(Start: 2 @15567 has 105 MA's), (12, 15615), (20, 15642), (24, 15675), (29, 15699), (37, 15759), (38, 15762), (59, 15942), (71, 16107), (82, 16230), (91, 16290), (95, 16350), (96, 16365), (100, 16389), (107, 16458), (111, 16497), (115, 16509),

Gene: Shambre1\_21 Start: 17642, Stop: 18598, Start Num: 2

Candidate Starts for Shambre1\_21:

(Start: 2 @17642 has 105 MA's), (5, 17654), (21, 17732), (29, 17774), (31, 17783), (41, 17861), (46, 17900), (49, 17930), (51, 17939), (60, 18020), (72, 18194), (88, 18350), (98, 18446), (99, 18455), (101, 18479), (102, 18503), (103, 18509), (104, 18515), (110, 18557),

Gene: Snek\_19 Start: 14174, Stop: 15217, Start Num: 10

Candidate Starts for Snek\_19:

(Start: 10 @14174 has 14 MA's), (23, 14234), (25, 14243), (57, 14489), (84, 14822), (103, 15020), (127, 15191), (130, 15206),

Gene: Studio\_25 Start: 17034, Stop: 18032, Start Num: 8

Candidate Starts for Studio\_25:

(8, 17034), (18, 17085), (20, 17091), (30, 17151), (31, 17157), (47, 17289), (48, 17292), (51, 17307), (83, 17646), (104, 17835), (106, 17844), (111, 17886), (117, 17907),

Gene: Sue2\_19 Start: 15808, Stop: 16815, Start Num: 10

Candidate Starts for Sue2\_19:

(Start: 10 @15808 has 14 MA's), (23, 15865), (44, 16015), (47, 16045), (58, 16126), (65, 16225), (72, 16303), (106, 16633),

Gene: Supakev\_17 Start: 15560, Stop: 16585, Start Num: 2

Candidate Starts for Supakev\_17:

(Start: 2 @15560 has 105 MA's), (24, 15668), (29, 15692), (37, 15752), (51, 15860), (59, 15935), (71, 16100), (84, 16241), (88, 16274), (89, 16277), (90, 16283), (93, 16316), (95, 16346), (96, 16361), (100, 16385), (102, 16430), (107, 16454), (108, 16466), (109, 16475), (122, 16535), (129, 16568),

Gene: Suppi\_21 Start: 17231, Stop: 18241, Start Num: 2

Candidate Starts for Suppi\_21:

(Start: 2 @17231 has 105 MA's), (Start: 3 @17237 has 1 MA's), (9, 17255), (24, 17333), (59, 17600), (62, 17687), (71, 17774), (74, 17804), (84, 17915), (90, 17957), (95, 18020), (100, 18059), (104, 18134), (107, 18146), (108, 18158), (118, 18209),

Gene: TMaxx\_24 Start: 16209, Stop: 17015, Start Num: 52

Candidate Starts for TMaxx\_24:

(Start: 52 @16209 has 1 MA's), (60, 16266), (67, 16350), (111, 16764), (113, 16770), (124, 16848), (126, 16860), (131, 16905), (132, 16911),

Gene: TattModd\_21 Start: 17192, Stop: 18199, Start Num: 2

Candidate Starts for TattModd\_21:

(Start: 2 @17192 has 105 MA's), (15, 17252), (24, 17300), (26, 17312), (37, 17384), (59, 17567), (71, 17741), (76, 17795), (77, 17828), (84, 17885), (85, 17888), (90, 17927), (95, 17990), (96, 18005), (97, 18014), (99, 18026), (108, 18110), (109, 18119), (118, 18161),

Gene: Temper16\_17 Start: 15567, Stop: 16598, Start Num: 2

Candidate Starts for Temper16\_17:

(Start: 2 @15567 has 105 MA's), (12, 15615), (20, 15642), (24, 15675), (29, 15699), (37, 15759), (38, 15762), (59, 15942), (71, 16107), (82, 16230), (91, 16290), (95, 16350), (96, 16365), (100, 16389), (107, 16458), (111, 16497), (115, 16509),

Gene: ToastyOats\_31 Start: 21698, Stop: 22672, Start Num: 2

Candidate Starts for ToastyOats\_31:

(Start: 2 @21698 has 105 MA's), (32, 21827), (35, 21848), (36, 21857), (37, 21860), (42, 21893), (43, 21899), (51, 21971), (53, 22001), (56, 22013), (57, 22028), (62, 22133), (64, 22154), (71, 22211), (74, 22241), (80, 22331), (84, 22349), (85, 22352), (86, 22373), (96, 22469), (100, 22493), (103, 22544), (106, 22559), (125, 22646),

Gene: Toodles\_29 Start: 21524, Stop: 22501, Start Num: 2

Candidate Starts for Toodles\_29:

(Start: 2 @21524 has 105 MA's), (17, 21575), (32, 21653), (35, 21674), (36, 21683), (37, 21686), (42, 21719), (43, 21725), (47, 21779), (53, 21827), (54, 21833), (57, 21854), (62, 21959), (74, 22067), (84, 22175), (85, 22178), (100, 22322), (103, 22373), (106, 22388),

Gene: TripleJ\_27 Start: 20708, Stop: 21640, Start Num: 2

Candidate Starts for TripleJ\_27:

(Start: 2 @20708 has 105 MA's), (22, 20789), (37, 20870), (42, 20903), (47, 20963), (53, 21011), (57, 21038), (59, 21056), (62, 21143), (64, 21164), (71, 21221), (84, 21359), (85, 21362), (93, 21434), (106, 21569), (107, 21572),

Gene: Tweety19\_19 Start: 14173, Stop: 15216, Start Num: 10

Candidate Starts for Tweety19\_19:

(Start: 10 @14173 has 14 MA's), (23, 14233), (25, 14242), (57, 14488), (72, 14704), (84, 14821), (103, 15019), (127, 15190), (130, 15205),

Gene: Urla\_17 Start: 15574, Stop: 16602, Start Num: 2

Candidate Starts for Urla\_17:

(Start: 2 @15574 has 105 MA's), (11, 15622), (20, 15652), (24, 15685), (29, 15709), (37, 15769), (59, 15952), (71, 16117), (78, 16210), (82, 16240), (95, 16360), (96, 16375), (100, 16399), (111, 16507), (112, 16510), (115, 16519),

Gene: VResidence\_19 Start: 15221, Stop: 16234, Start Num: 10

Candidate Starts for VResidence\_19:

(Start: 10 @15221 has 14 MA's), (23, 15278), (39, 15374), (44, 15428), (54, 15512),

Gene: Vallejo\_21 Start: 17131, Stop: 18138, Start Num: 2

Candidate Starts for Vallejo\_21:

(Start: 2 @17131 has 105 MA's), (15, 17191), (24, 17239), (26, 17251), (37, 17323), (59, 17506), (71, 17680), (76, 17734), (77, 17767), (85, 17827), (90, 17866), (95, 17929), (96, 17944), (97, 17953), (99, 17965), (100, 17968), (108, 18049), (109, 18058), (118, 18100),

Gene: Vulture\_17 Start: 15558, Stop: 16583, Start Num: 2

Candidate Starts for Vulture\_17:

(Start: 2 @15558 has 105 MA's), (24, 15666), (29, 15690), (37, 15750), (51, 15858), (59, 15933), (71, 16098), (84, 16239), (89, 16275), (90, 16281), (93, 16314), (95, 16344), (96, 16359), (100, 16383), (102, 16428), (107, 16452), (108, 16464), (109, 16473), (122, 16533), (129, 16566),

Gene: Wawa\_21 Start: 17168, Stop: 18175, Start Num: 2

Candidate Starts for Wawa\_21:

(Start: 2 @17168 has 105 MA's), (15, 17228), (24, 17276), (26, 17288), (37, 17360), (59, 17543), (71, 17717), (76, 17771), (77, 17804), (85, 17864), (90, 17903), (95, 17966), (96, 17981), (97, 17990), (99, 18002), (100, 18005), (108, 18086), (109, 18095), (118, 18137),

Gene: Wayne\_21 Start: 17277, Stop: 18287, Start Num: 2

Candidate Starts for Wayne\_21:

(Start: 2 @17277 has 105 MA's), (Start: 3 @17283 has 1 MA's), (24, 17379), (59, 17646), (62, 17733), (71, 17820), (74, 17850), (84, 17961), (90, 18003), (95, 18066), (100, 18105), (104, 18180), (107, 18192), (108, 18204), (118, 18255),

Gene: Wildwest\_20 Start: 16573, Stop: 17577, Start Num: 10

Candidate Starts for Wildwest\_20:

(Start: 10 @16573 has 14 MA's), (23, 16630), (44, 16780), (47, 16810), (65, 16987), (68, 17002), (72, 17065), (87, 17209), (103, 17380),

Gene: WonderBoy\_17 Start: 15543, Stop: 16586, Start Num: 2

Candidate Starts for WonderBoy\_17:

(Start: 2 @15543 has 105 MA's), (24, 15651), (37, 15735), (51, 15843), (59, 15918), (76, 16137), (78, 16176), (85, 16227), (90, 16266), (95, 16329), (99, 16365), (100, 16368), (107, 16437), (108, 16449), (109, 16458), (111, 16476), (115, 16488), (123, 16530),

Gene: Yonex\_28 Start: 21684, Stop: 22652, Start Num: 2

Candidate Starts for Yonex\_28:

(Start: 2 @21684 has 105 MA's), (7, 21693), (27, 21783), (32, 21807), (37, 21840), (43, 21879), (47, 21933), (53, 21981), (54, 21987), (56, 21993), (57, 22008), (59, 22026), (62, 22113), (71, 22191), (72, 22215), (74, 22221), (80, 22311), (84, 22329), (85, 22332), (100, 22473), (103, 22524), (106, 22539), (107, 22542),

Gene: Zaheer\_28 Start: 21773, Stop: 22741, Start Num: 2

Candidate Starts for Zaheer\_28:

(Start: 2 @21773 has 105 MA's), (7, 21782), (27, 21872), (32, 21896), (37, 21929), (43, 21968), (47, 22022), (53, 22070), (54, 22076), (56, 22082), (57, 22097), (59, 22115), (62, 22202), (71, 22280), (72, 22304), (74, 22310), (80, 22400), (84, 22418), (85, 22421), (100, 22562), (103, 22613), (106, 22628), (107, 22631),

Gene: Zorro\_21 Start: 17147, Stop: 18154, Start Num: 2

Candidate Starts for Zorro\_21:

(Start: 2 @17147 has 105 MA's), (15, 17207), (24, 17255), (26, 17267), (37, 17339), (59, 17522), (71, 17696), (76, 17750), (77, 17783), (84, 17840), (85, 17843), (90, 17882), (95, 17945), (96, 17960), (97, 17969), (99, 17981), (100, 17984), (108, 18065), (109, 18074), (118, 18116),