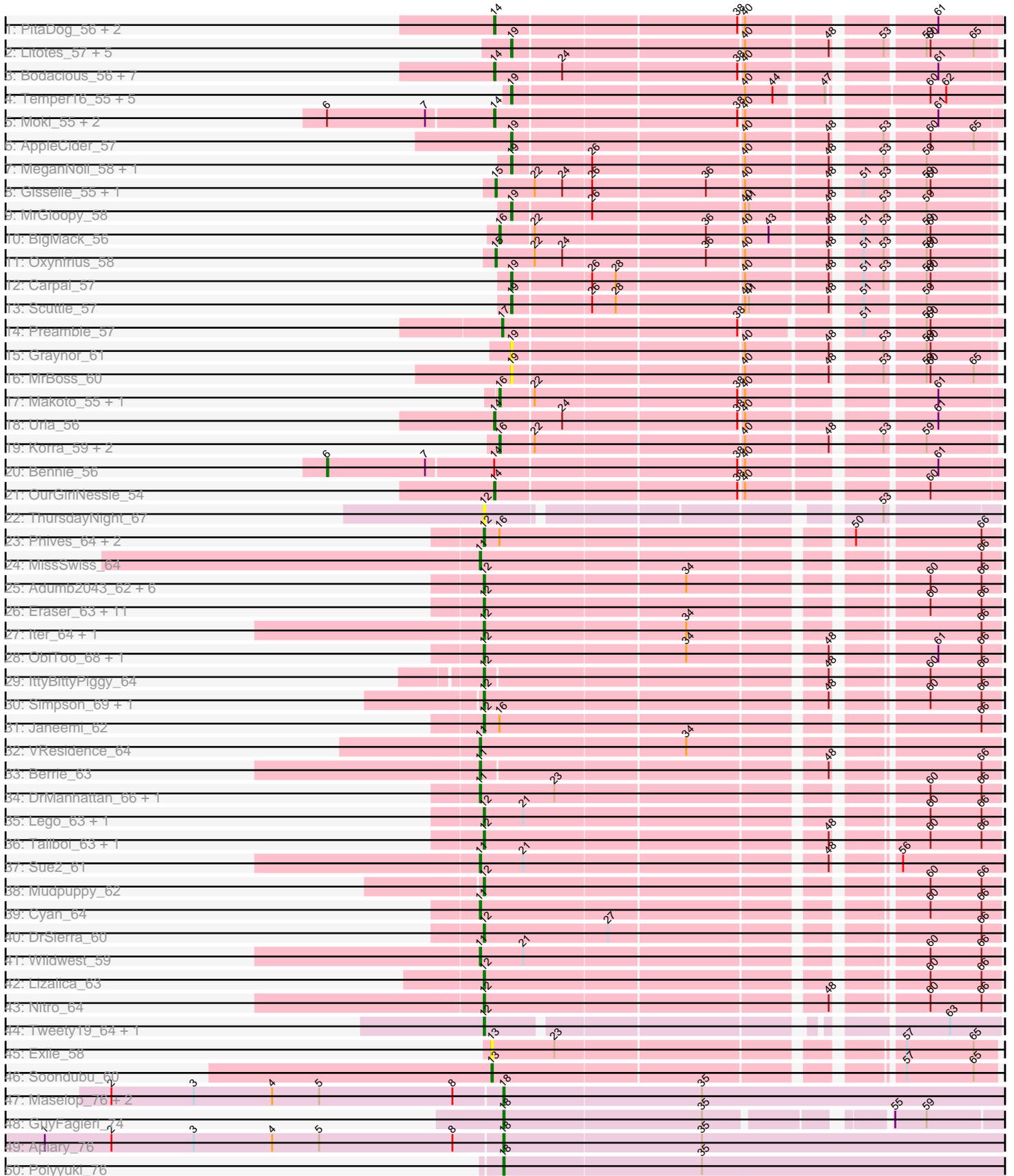


Pham 283614





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 283614 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283614 has 125 members, 27 are drafts.

Phages represented in each track:

- Track 1 : PitaDog\_56, Christian\_56, Pterodactyl\_56
- Track 2 : Litotes\_57, PartyCup\_59, CallieOMalley\_58, Suppi\_58, Canowicakte\_58, Wayne\_60
- Track 3 : Bodacious\_56, Lucy\_55, Lennox\_56, ChewChew\_56, CristinaYang\_56, Lasagna\_54, Nancia\_56, LilStuart\_55
- Track 4 : Temper16\_55, Maria1952\_54, Daiboju\_55, Sergei\_55, KingBob\_55, Herb\_55
- Track 5 : Moki\_55, Huckleberry\_55, HeadNerd\_55
- Track 6 : AppleCider\_57
- Track 7 : MeganNoll\_58, RAP15\_59
- Track 8 : Gisselle\_55, DreamTeam\_55
- Track 9 : MrGloopy\_58
- Track 10 : BigMack\_56
- Track 11 : Oxynfrius\_58
- Track 12 : Carpal\_57
- Track 13 : Scuttle\_57
- Track 14 : Preamble\_57
- Track 15 : Graynor\_61
- Track 16 : MrBoss\_60
- Track 17 : Makoto\_55, DrRobert\_54
- Track 18 : Urla\_56
- Track 19 : Korra\_59, Fluke\_58, Glenn\_59
- Track 20 : Bennie\_56
- Track 21 : OurGirlNessie\_54
- Track 22 : ThursdayNight\_67
- Track 23 : Phives\_64, Community\_63, Tuck\_63
- Track 24 : MissSwiss\_64
- Track 25 : Adumb2043\_62, Jstan\_64, AEgle\_61, Turab\_62, Elezi\_62, Subaru\_63, Amploria\_63
- Track 26 : Eraser\_63, YesChef\_63, Flutur\_63, Skelbel\_64, Asa16\_63, London\_63, AGrandiflora\_65, Niobe\_63, Tutumahutu\_65, Tbone\_63, Powerpuff\_65, Warda\_64
- Track 27 : Iter\_64, Ascela\_65
- Track 28 : ObiToo\_68, Crewmate\_68
- Track 29 : IttyBittyPiggy\_64
- Track 30 : Simpson\_69, Joemato\_65
- Track 31 : Janeemi\_62
- Track 32 : VResidence\_64

- Track 33 : Berrie\_63
- Track 34 : DrManhattan\_66, Adolin\_65
- Track 35 : Lego\_63, Kaylissa\_65
- Track 36 : Tallboi\_63, JohnDoe\_64
- Track 37 : Sue2\_61
- Track 38 : Mudpuppy\_62
- Track 39 : Cyan\_64
- Track 40 : DrSierra\_60
- Track 41 : Wildwest\_59
- Track 42 : Lizalica\_63
- Track 43 : Nitro\_64
- Track 44 : Tweety19\_64, Snek\_63
- Track 45 : Exile\_58
- Track 46 : Soondubu\_60
- Track 47 : Maselep\_76, CoffeeBean\_76, Braxoaddie\_76
- Track 48 : GuyFagieri\_74
- Track 49 : Apiary\_76
- Track 50 : Polyuki\_76
- Track 51 : HollowPurple\_104, Welcome\_105, ASegato\_101, Necrophoxinus\_105, StevieWelch\_103, Fork\_99, Erenyeager\_103, SteakFry\_102, Issa7\_102
- Track 52 : Shroomer\_106
- Track 53 : Elfy\_75
- Track 54 : Gerri43\_59, ChipsNGuac\_59, Neuville\_58, CardboardBox\_59, AnnabelLee\_60, Roberts\_58, ChamoyPickle\_60
- Track 55 : Ezurina\_58
- Track 56 : Studio\_60
- Track 57 : TPA2\_52

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

The start number called the most often in the published annotations is 12, it was called in 30 of the 98 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle\_61, AGrandiflora\_65, Adumb2043\_62, Amploria\_63, Asa16\_63, Ascela\_65, Community\_63, Crewmate\_68, DrSierra\_60, Elezi\_62, Eraser\_63, Flutur\_63, Iter\_64, IttyBittyPiggy\_64, Janeemi\_62, Joemato\_65, JohnDoe\_64, Jstan\_64, Kaylissa\_65, Lego\_63, Lizalica\_63, London\_63, Mudpuppy\_62, Niobe\_63, Nitro\_64, ObiToo\_68, Phives\_64, Powerpuff\_65, Simpson\_69, Skelbel\_64, Snek\_63, Subaru\_63, Tallboi\_63, Tbone\_63, ThursdayNight\_67, Tuck\_63, Turab\_62, Tutumahutu\_65, Tweety19\_64, Warda\_64, YesChef\_63,

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

- 

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

- ASegato\_101, Adolin\_65, AnnabelLee\_60, Apiary\_76, AppleCider\_57, Bennie\_56, Berrie\_63, BigMack\_56, Bodacious\_56, Braxoaddie\_76, CallieOMalley\_58, Canowicakte\_58, CardboardBox\_59, Carpal\_57, ChamoyPickle\_60, ChewChew\_56, ChipsNGuac\_59, Christian\_56, CoffeeBean\_76, CristinaYang\_56, Cyan\_64,

Daiboju\_55, DrManhattan\_66, DrRobert\_54, DreamTeam\_55, Elfy\_75, Erenyeager\_103, Exile\_58, Ezurina\_58, Fluke\_58, Fork\_99, Gerri43\_59, Gisselle\_55, Glenn\_59, Graynor\_61, GuyFagieri\_74, HeadNerd\_55, Herb\_55, HollowPurple\_104, Huckleberry\_55, Issa7\_102, KingBob\_55, Korra\_59, Lasagna\_54, Lennox\_56, LilStuart\_55, Litotes\_57, Lucy\_55, Makoto\_55, Maria1952\_54, Maselop\_76, MeganNoll\_58, MissSwiss\_64, Moki\_55, MrBoss\_60, MrGloopy\_58, Nancia\_56, Necrophoxinus\_105, Neuville\_58, OurGirlNessie\_54, Oxynfrius\_58, PartyCup\_59, PitaDog\_56, Polyuyuki\_76, Preamble\_57, Pterodactyl\_56, RAP15\_59, Roberts\_58, Scuttle\_57, Sergei\_55, Shroomer\_106, Soondubu\_60, SteakFry\_102, StevieWelch\_103, Studio\_60, Sue2\_61, Suppi\_58, TPA2\_52, Temper16\_55, Urla\_56, VResidence\_64, Wayne\_60, Welcome\_105, Wildwest\_59,

### Summary by start number:

#### Start 6:

- Found in 4 of 125 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 98
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Bennie\_56 (AK),

#### Start 9:

- Found in 9 of 125 ( 7.2% ) of genes in pham
- Manual Annotations of this start: 1 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee\_60 (FR), CardboardBox\_59 (FR), ChamoyPickle\_60 (FR), ChipsNGuac\_59 (FR), Ezurina\_58 (FR), Gerri43\_59 (FR), Neuville\_58 (FR), Roberts\_58 (FR), Studio\_60 (FR),

#### Start 10:

- Found in 1 of 125 ( 0.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA2\_52 (singleton),

#### Start 11:

- Found in 8 of 125 ( 6.4% ) of genes in pham
- Manual Annotations of this start: 8 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adolin\_65 (AZ1), Berrie\_63 (AZ1), Cyan\_64 (AZ1), DrManhattan\_66 (AZ1), MissSwiss\_64 (AZ1), Sue2\_61 (AZ1), VResidence\_64 (AZ1), Wildwest\_59 (AZ1),

#### Start 12:

- Found in 41 of 125 ( 32.8% ) of genes in pham
- Manual Annotations of this start: 30 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle\_61 (AZ1), AGrandiflora\_65 (AZ1), Adumb2043\_62 (AZ1), Amploria\_63 (AZ1), Asa16\_63 (AZ1), Ascela\_65 (AZ1), Community\_63 (AZ1), Crewmate\_68 (AZ1), DrSierra\_60 (AZ1), Elezi\_62 (AZ1), Eraser\_63 (AZ1), Flutur\_63 (AZ), Iter\_64 (AZ1), IttyBittyPiggy\_64 (AZ1), Janeemi\_62 (AZ1), Joemato\_65 (AZ1), JohnDoe\_64 (AZ1), Jstan\_64 (AZ1), Kaylissa\_65 (AZ1), Lego\_63 (AZ1), Lizalica\_63 (AZ1), London\_63 (AZ1), Mudpuppy\_62 (AZ1), Niobe\_63 (AZ1), Nitro\_64 (AZ1), ObiToo\_68 (AZ1), Phives\_64 (AZ1), Powerpuff\_65 (AZ1),

Simpson\_69 (AZ1), Skelbel\_64 (AZ1), Snek\_63 (AZ3), Subaru\_63 (AZ1), Tallboi\_63 (AZ1), Tbone\_63 (AZ1), ThursdayNight\_67 (AZ), Tuck\_63 (AZ1), Turab\_62 (AZ1), Tutumahutu\_65 (AZ1), Tweety19\_64 (AZ3), Warda\_64 (AZ1), YesChef\_63 (AZ1),

Start 13:

- Found in 2 of 125 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Exile\_58 (AZ6), Soondubu\_60 (AZ6),

Start 14:

- Found in 17 of 125 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 16 of 98
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Bodacious\_56 (AK), ChewChew\_56 (AK), Christian\_56 (AK), CristinaYang\_56 (AK), HeadNerd\_55 (AK), Huckleberry\_55 (AK), Lasagna\_54 (AK), Lennox\_56 (AK), LilStuart\_55 (AK), Lucy\_55 (AK), Moki\_55 (AK), Nancia\_56 (AK), OurGirlNessie\_54 (AK), PitaDog\_56 (AK), Pterodactyl\_56 (AK), Urla\_56 (AK),

Start 15:

- Found in 3 of 125 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 3 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamTeam\_55 (AK), Gisselle\_55 (AK), Oxyfnrius\_58 (AK),

Start 16:

- Found in 11 of 125 ( 8.8% ) of genes in pham
- Manual Annotations of this start: 6 of 98
- Called 54.5% of time when present
- Phage (with cluster) where this start called: BigMack\_56 (AK), DrRobert\_54 (AK), Fluke\_58 (AK), Glenn\_59 (AK), Korra\_59 (AK), Makoto\_55 (AK),

Start 17:

- Found in 2 of 125 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elfy\_75 (FP), Preamble\_57 (AK),

Start 18:

- Found in 6 of 125 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 6 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary\_76 (CR6), Braxoaddie\_76 (CR6), CoffeeBean\_76 (CR6), GuyFagieri\_74 (CR6), Maselop\_76 (CR6), Polyuyuki\_76 (CR6),

Start 19:

- Found in 20 of 125 ( 16.0% ) of genes in pham
- Manual Annotations of this start: 18 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AppleCider\_57 (AK), CallieOMalley\_58 (AK), Canowicakte\_58 (AK), Carpal\_57 (AK), Daiboju\_55 (AK), Graynor\_61 (AK),

Herb\_55 (AK), KingBob\_55 (AK), Litotes\_57 (AK), Maria1952\_54 (AK), MeganNoll\_58 (AK), MrBoss\_60 (AK), MrGloopy\_58 (AK), PartyCup\_59 (AK), RAP15\_59 (AK), Scuttle\_57 (AK), Sergei\_55 (AK), Suppi\_58 (AK), Temper16\_55 (AK), Wayne\_60 (AK),

Start 20:

- Found in 10 of 125 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 7 of 98
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASegato\_101 (ED2), Erenyeager\_103 (ED2), Fork\_99 (ED2), HollowPurple\_104 (ED2), Issa7\_102 (ED2), Necrophoxinus\_105 (ED2), Shroomer\_106 (ED2), SteakFry\_102 (ED2), StevieWelch\_103 (ED2), Welcome\_105 (ED2),

### **Summary by clusters:**

There are 10 clusters represented in this pham: FP, FR, AZ, CR6, AK, singleton, ED2, AZ1, AZ3, AZ6,

Info for manual annotations of cluster AK:

- Start number 6 was manually annotated 1 time for cluster AK.
- Start number 14 was manually annotated 16 times for cluster AK.
- Start number 15 was manually annotated 3 times for cluster AK.
- Start number 16 was manually annotated 6 times for cluster AK.
- Start number 17 was manually annotated 1 time for cluster AK.
- Start number 19 was manually annotated 18 times for cluster AK.

Info for manual annotations of cluster AZ1:

- Start number 11 was manually annotated 8 times for cluster AZ1.
- Start number 12 was manually annotated 28 times for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 12 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ6:

- Start number 13 was manually annotated 1 time for cluster AZ6.

Info for manual annotations of cluster CR6:

- Start number 18 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster ED2:

- Start number 20 was manually annotated 7 times for cluster ED2.

Info for manual annotations of cluster FR:

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

### **Gene Information:**

Gene: AEgle\_61 Start: 41138, Stop: 41494, Start Num: 12

Candidate Starts for AEgle\_61:  
(Start: 12 @41138 has 30 MA's), (34, 41288), (60, 41441), (66, 41480),

Gene: AGrandiflora\_65 Start: 42034, Stop: 42390, Start Num: 12  
Candidate Starts for AGrandiflora\_65:  
(Start: 12 @42034 has 30 MA's), (60, 42337), (66, 42376),

Gene: ASegato\_101 Start: 54171, Stop: 53848, Start Num: 20  
Candidate Starts for ASegato\_101:  
(Start: 20 @54171 has 7 MA's), (22, 54156), (27, 54102), (37, 54030), (39, 54009), (49, 53952), (52, 53931), (58, 53916), (63, 53886), (64, 53874), (65, 53868), (66, 53862),

Gene: Adolin\_65 Start: 40925, Stop: 41284, Start Num: 11  
Candidate Starts for Adolin\_65:  
(Start: 11 @40925 has 8 MA's), (23, 40982), (60, 41231), (66, 41270),

Gene: Adumb2043\_62 Start: 41162, Stop: 41518, Start Num: 12  
Candidate Starts for Adumb2043\_62:  
(Start: 12 @41162 has 30 MA's), (34, 41312), (60, 41465), (66, 41504),

Gene: Amploria\_63 Start: 41342, Stop: 41698, Start Num: 12  
Candidate Starts for Amploria\_63:  
(Start: 12 @41342 has 30 MA's), (34, 41492), (60, 41645), (66, 41684),

Gene: AnnabelLee\_60 Start: 35355, Stop: 34978, Start Num: 9  
Candidate Starts for AnnabelLee\_60:  
(Start: 9 @35355 has 1 MA's), (48, 35091), (54, 35058),

Gene: Apiary\_76 Start: 55270, Stop: 54890, Start Num: 18  
Candidate Starts for Apiary\_76:  
(1, 55618), (2, 55567), (3, 55504), (4, 55444), (5, 55408), (8, 55306), (Start: 18 @55270 has 6 MA's), (35, 55120),

Gene: AppleCider\_57 Start: 41677, Stop: 42012, Start Num: 19  
Candidate Starts for AppleCider\_57:  
(Start: 19 @41677 has 18 MA's), (40, 41845), (48, 41905), (53, 41935), (60, 41965), (65, 41998),

Gene: Asa16\_63 Start: 41723, Stop: 42079, Start Num: 12  
Candidate Starts for Asa16\_63:  
(Start: 12 @41723 has 30 MA's), (60, 42026), (66, 42065),

Gene: Ascela\_65 Start: 42214, Stop: 42570, Start Num: 12  
Candidate Starts for Ascela\_65:  
(Start: 12 @42214 has 30 MA's), (34, 42364), (66, 42556),

Gene: Bennie\_56 Start: 40399, Stop: 40872, Start Num: 6  
Candidate Starts for Bennie\_56:  
(Start: 6 @40399 has 1 MA's), (7, 40474), (Start: 14 @40522 has 16 MA's), (38, 40699), (40, 40702), (61, 40828),

Gene: Berrie\_63 Start: 41818, Stop: 42174, Start Num: 11  
Candidate Starts for Berrie\_63:  
(Start: 11 @41818 has 8 MA's), (48, 42064), (66, 42160),

Gene: BigMack\_56 Start: 40973, Stop: 41317, Start Num: 16

Candidate Starts for BigMack\_56:

(Start: 16 @40973 has 6 MA's), (22, 40997), (36, 41123), (40, 41150), (43, 41168), (48, 41210), (51, 41225), (53, 41240), (59, 41267), (60, 41270),

Gene: Bodacious\_56 Start: 40944, Stop: 41294, Start Num: 14

Candidate Starts for Bodacious\_56:

(Start: 14 @40944 has 16 MA's), (24, 40992), (38, 41121), (40, 41124), (61, 41250),

Gene: Braxoaddie\_76 Start: 55255, Stop: 54875, Start Num: 18

Candidate Starts for Braxoaddie\_76:

(2, 55552), (3, 55489), (4, 55429), (5, 55393), (8, 55291), (Start: 18 @55255 has 6 MA's), (35, 55105),

Gene: CallieOMalley\_58 Start: 41865, Stop: 42200, Start Num: 19

Candidate Starts for CallieOMalley\_58:

(Start: 19 @41865 has 18 MA's), (40, 42033), (48, 42093), (53, 42123), (59, 42150), (60, 42153), (65, 42186),

Gene: Canowicakte\_58 Start: 41917, Stop: 42252, Start Num: 19

Candidate Starts for Canowicakte\_58:

(Start: 19 @41917 has 18 MA's), (40, 42085), (48, 42145), (53, 42175), (59, 42202), (60, 42205), (65, 42238),

Gene: CardboardBox\_59 Start: 35358, Stop: 34981, Start Num: 9

Candidate Starts for CardboardBox\_59:

(Start: 9 @35358 has 1 MA's), (48, 35094), (54, 35061),

Gene: Carpal\_57 Start: 41744, Stop: 42079, Start Num: 19

Candidate Starts for Carpal\_57:

(Start: 19 @41744 has 18 MA's), (26, 41801), (28, 41819), (40, 41912), (48, 41972), (51, 41987), (53, 42002), (59, 42029), (60, 42032),

Gene: ChamoyPickle\_60 Start: 35898, Stop: 35521, Start Num: 9

Candidate Starts for ChamoyPickle\_60:

(Start: 9 @35898 has 1 MA's), (48, 35634), (54, 35601),

Gene: ChewChew\_56 Start: 41074, Stop: 41424, Start Num: 14

Candidate Starts for ChewChew\_56:

(Start: 14 @41074 has 16 MA's), (24, 41122), (38, 41251), (40, 41254), (61, 41380),

Gene: ChipsNGuac\_59 Start: 35358, Stop: 34981, Start Num: 9

Candidate Starts for ChipsNGuac\_59:

(Start: 9 @35358 has 1 MA's), (48, 35094), (54, 35061),

Gene: Christian\_56 Start: 40786, Stop: 41136, Start Num: 14

Candidate Starts for Christian\_56:

(Start: 14 @40786 has 16 MA's), (38, 40963), (40, 40966), (61, 41092),

Gene: CoffeeBean\_76 Start: 55213, Stop: 54833, Start Num: 18

Candidate Starts for CoffeeBean\_76:

(2, 55510), (3, 55447), (4, 55387), (5, 55351), (8, 55249), (Start: 18 @55213 has 6 MA's), (35, 55063),

Gene: Community\_63 Start: 42094, Stop: 42450, Start Num: 12  
Candidate Starts for Community\_63:  
(Start: 12 @42094 has 30 MA's), (Start: 16 @42106 has 6 MA's), (50, 42349), (66, 42436),

Gene: Crewmate\_68 Start: 42445, Stop: 42801, Start Num: 12  
Candidate Starts for Crewmate\_68:  
(Start: 12 @42445 has 30 MA's), (34, 42595), (48, 42691), (61, 42754), (66, 42787),

Gene: CristinaYang\_56 Start: 41071, Stop: 41421, Start Num: 14  
Candidate Starts for CristinaYang\_56:  
(Start: 14 @41071 has 16 MA's), (24, 41119), (38, 41248), (40, 41251), (61, 41377),

Gene: Cyan\_64 Start: 41775, Stop: 42134, Start Num: 11  
Candidate Starts for Cyan\_64:  
(Start: 11 @41775 has 8 MA's), (60, 42081), (66, 42120),

Gene: Daiboju\_55 Start: 41677, Stop: 42018, Start Num: 19  
Candidate Starts for Daiboju\_55:  
(Start: 19 @41677 has 18 MA's), (40, 41848), (44, 41869), (47, 41902), (60, 41965), (62, 41977),

Gene: DrManhattan\_66 Start: 40479, Stop: 40838, Start Num: 11  
Candidate Starts for DrManhattan\_66:  
(Start: 11 @40479 has 8 MA's), (23, 40536), (60, 40785), (66, 40824),

Gene: DrRobert\_54 Start: 40308, Stop: 40655, Start Num: 16  
Candidate Starts for DrRobert\_54:  
(Start: 16 @40308 has 6 MA's), (22, 40332), (38, 40482), (40, 40485), (61, 40611),

Gene: DrSierra\_60 Start: 40611, Stop: 40967, Start Num: 12  
Candidate Starts for DrSierra\_60:  
(Start: 12 @40611 has 30 MA's), (27, 40704), (66, 40953),

Gene: DreamTeam\_55 Start: 40683, Stop: 41033, Start Num: 15  
Candidate Starts for DreamTeam\_55:  
(Start: 15 @40683 has 3 MA's), (22, 40713), (24, 40734), (26, 40755), (36, 40839), (40, 40866), (48, 40926), (51, 40941), (53, 40956), (59, 40983), (60, 40986),

Gene: Elezi\_62 Start: 41480, Stop: 41836, Start Num: 12  
Candidate Starts for Elezi\_62:  
(Start: 12 @41480 has 30 MA's), (34, 41630), (60, 41783), (66, 41822),

Gene: Elfy\_75 Start: 42768, Stop: 43112, Start Num: 17  
Candidate Starts for Elfy\_75:  
(Start: 17 @42768 has 1 MA's), (30, 42855), (31, 42879), (36, 42918), (39, 42945), (44, 42969), (45, 42981), (59, 43056),

Gene: Eraser\_63 Start: 41730, Stop: 42086, Start Num: 12  
Candidate Starts for Eraser\_63:  
(Start: 12 @41730 has 30 MA's), (60, 42033), (66, 42072),

Gene: Erenyeager\_103 Start: 54096, Stop: 53773, Start Num: 20  
Candidate Starts for Erenyeager\_103:

(Start: 20 @54096 has 7 MA's), (22, 54081), (27, 54027), (37, 53955), (39, 53934), (49, 53877), (52, 53856), (58, 53841), (63, 53811), (64, 53799), (65, 53793), (66, 53787),

Gene: Exile\_58 Start: 42771, Stop: 43118, Start Num: 13

Candidate Starts for Exile\_58:

(Start: 13 @42771 has 1 MA's), (23, 42819), (57, 43050), (65, 43101),

Gene: Ezurina\_58 Start: 36258, Stop: 35881, Start Num: 9

Candidate Starts for Ezurina\_58:

(Start: 9 @36258 has 1 MA's), (Start: 16 @36237 has 6 MA's), (25, 36174), (54, 35961),

Gene: Fluke\_58 Start: 42001, Stop: 42345, Start Num: 16

Candidate Starts for Fluke\_58:

(Start: 16 @42001 has 6 MA's), (22, 42025), (40, 42178), (48, 42238), (53, 42268), (59, 42295),

Gene: Flutur\_63 Start: 42059, Stop: 42415, Start Num: 12

Candidate Starts for Flutur\_63:

(Start: 12 @42059 has 30 MA's), (60, 42362), (66, 42401),

Gene: Fork\_99 Start: 54049, Stop: 53726, Start Num: 20

Candidate Starts for Fork\_99:

(Start: 20 @54049 has 7 MA's), (22, 54034), (27, 53980), (37, 53908), (39, 53887), (49, 53830), (52, 53809), (58, 53794), (63, 53764), (64, 53752), (65, 53746), (66, 53740),

Gene: Gerri43\_59 Start: 35358, Stop: 34981, Start Num: 9

Candidate Starts for Gerri43\_59:

(Start: 9 @35358 has 1 MA's), (48, 35094), (54, 35061),

Gene: Gisselle\_55 Start: 40683, Stop: 41033, Start Num: 15

Candidate Starts for Gisselle\_55:

(Start: 15 @40683 has 3 MA's), (22, 40713), (24, 40734), (26, 40755), (36, 40839), (40, 40866), (48, 40926), (51, 40941), (53, 40956), (59, 40983), (60, 40986),

Gene: Glenn\_59 Start: 42462, Stop: 42806, Start Num: 16

Candidate Starts for Glenn\_59:

(Start: 16 @42462 has 6 MA's), (22, 42486), (40, 42639), (48, 42699), (53, 42729), (59, 42756),

Gene: Graynor\_61 Start: 41502, Stop: 41837, Start Num: 19

Candidate Starts for Graynor\_61:

(Start: 19 @41502 has 18 MA's), (40, 41670), (48, 41730), (53, 41760), (59, 41787), (60, 41790),

Gene: GuyFagieri\_74 Start: 55043, Stop: 54696, Start Num: 18

Candidate Starts for GuyFagieri\_74:

(Start: 18 @55043 has 6 MA's), (35, 54893), (55, 54776), (59, 54752),

Gene: HeadNerd\_55 Start: 40416, Stop: 40766, Start Num: 14

Candidate Starts for HeadNerd\_55:

(Start: 6 @40293 has 1 MA's), (7, 40368), (Start: 14 @40416 has 16 MA's), (38, 40593), (40, 40596), (61, 40722),

Gene: Herb\_55 Start: 41676, Stop: 42017, Start Num: 19

Candidate Starts for Herb\_55:

(Start: 19 @41676 has 18 MA's), (40, 41847), (44, 41868), (47, 41901), (60, 41964), (62, 41976),

Gene: HollowPurple\_104 Start: 54710, Stop: 54387, Start Num: 20

Candidate Starts for HollowPurple\_104:

(Start: 20 @54710 has 7 MA's), (22, 54695), (27, 54641), (37, 54569), (39, 54548), (49, 54491), (52, 54470), (58, 54455), (63, 54425), (64, 54413), (65, 54407), (66, 54401),

Gene: Huckleberry\_55 Start: 40420, Stop: 40770, Start Num: 14

Candidate Starts for Huckleberry\_55:

(Start: 6 @40297 has 1 MA's), (7, 40372), (Start: 14 @40420 has 16 MA's), (38, 40597), (40, 40600), (61, 40726),

Gene: Issa7\_102 Start: 54064, Stop: 53741, Start Num: 20

Candidate Starts for Issa7\_102:

(Start: 20 @54064 has 7 MA's), (22, 54049), (27, 53995), (37, 53923), (39, 53902), (49, 53845), (52, 53824), (58, 53809), (63, 53779), (64, 53767), (65, 53761), (66, 53755),

Gene: Iter\_64 Start: 41985, Stop: 42341, Start Num: 12

Candidate Starts for Iter\_64:

(Start: 12 @41985 has 30 MA's), (34, 42135), (66, 42327),

Gene: IttyBittyPiggy\_64 Start: 40207, Stop: 40560, Start Num: 12

Candidate Starts for IttyBittyPiggy\_64:

(Start: 12 @40207 has 30 MA's), (48, 40450), (60, 40507), (66, 40546),

Gene: Janeemi\_62 Start: 41595, Stop: 41951, Start Num: 12

Candidate Starts for Janeemi\_62:

(Start: 12 @41595 has 30 MA's), (Start: 16 @41607 has 6 MA's), (66, 41937),

Gene: Joemato\_65 Start: 41955, Stop: 42311, Start Num: 12

Candidate Starts for Joemato\_65:

(Start: 12 @41955 has 30 MA's), (48, 42201), (60, 42258), (66, 42297),

Gene: JohnDoe\_64 Start: 41872, Stop: 42228, Start Num: 12

Candidate Starts for JohnDoe\_64:

(Start: 12 @41872 has 30 MA's), (48, 42118), (60, 42175), (66, 42214),

Gene: Jstan\_64 Start: 41484, Stop: 41840, Start Num: 12

Candidate Starts for Jstan\_64:

(Start: 12 @41484 has 30 MA's), (34, 41634), (60, 41787), (66, 41826),

Gene: Kaylissa\_65 Start: 42234, Stop: 42590, Start Num: 12

Candidate Starts for Kaylissa\_65:

(Start: 12 @42234 has 30 MA's), (21, 42264), (60, 42537), (66, 42576),

Gene: KingBob\_55 Start: 41677, Stop: 42018, Start Num: 19

Candidate Starts for KingBob\_55:

(Start: 19 @41677 has 18 MA's), (40, 41848), (44, 41869), (47, 41902), (60, 41965), (62, 41977),

Gene: Korra\_59 Start: 41736, Stop: 42080, Start Num: 16

Candidate Starts for Korra\_59:

(Start: 16 @41736 has 6 MA's), (22, 41760), (40, 41913), (48, 41973), (53, 42003), (59, 42030),

Gene: Lasagna\_54 Start: 40307, Stop: 40657, Start Num: 14

Candidate Starts for Lasagna\_54:

(Start: 14 @40307 has 16 MA's), (24, 40355), (38, 40484), (40, 40487), (61, 40613),

Gene: Lego\_63 Start: 41553, Stop: 41909, Start Num: 12

Candidate Starts for Lego\_63:

(Start: 12 @41553 has 30 MA's), (21, 41583), (60, 41856), (66, 41895),

Gene: Lennox\_56 Start: 40792, Stop: 41142, Start Num: 14

Candidate Starts for Lennox\_56:

(Start: 14 @40792 has 16 MA's), (24, 40840), (38, 40969), (40, 40972), (61, 41098),

Gene: LilStuart\_55 Start: 40655, Stop: 41005, Start Num: 14

Candidate Starts for LilStuart\_55:

(Start: 14 @40655 has 16 MA's), (24, 40703), (38, 40832), (40, 40835), (61, 40961),

Gene: Litotes\_57 Start: 41464, Stop: 41799, Start Num: 19

Candidate Starts for Litotes\_57:

(Start: 19 @41464 has 18 MA's), (40, 41632), (48, 41692), (53, 41722), (59, 41749), (60, 41752), (65, 41785),

Gene: Lizalica\_63 Start: 41149, Stop: 41505, Start Num: 12

Candidate Starts for Lizalica\_63:

(Start: 12 @41149 has 30 MA's), (60, 41452), (66, 41491),

Gene: London\_63 Start: 41721, Stop: 42077, Start Num: 12

Candidate Starts for London\_63:

(Start: 12 @41721 has 30 MA's), (60, 42024), (66, 42063),

Gene: Lucy\_55 Start: 40650, Stop: 41000, Start Num: 14

Candidate Starts for Lucy\_55:

(Start: 14 @40650 has 16 MA's), (24, 40698), (38, 40827), (40, 40830), (61, 40956),

Gene: Makoto\_55 Start: 40551, Stop: 40898, Start Num: 16

Candidate Starts for Makoto\_55:

(Start: 16 @40551 has 6 MA's), (22, 40575), (38, 40725), (40, 40728), (61, 40854),

Gene: Maria1952\_54 Start: 41676, Stop: 42017, Start Num: 19

Candidate Starts for Maria1952\_54:

(Start: 19 @41676 has 18 MA's), (40, 41847), (44, 41868), (47, 41901), (60, 41964), (62, 41976),

Gene: Maselop\_76 Start: 55289, Stop: 54909, Start Num: 18

Candidate Starts for Maselop\_76:

(2, 55586), (3, 55523), (4, 55463), (5, 55427), (8, 55325), (Start: 18 @55289 has 6 MA's), (35, 55139),

Gene: MeganNoll\_58 Start: 42247, Stop: 42582, Start Num: 19

Candidate Starts for MeganNoll\_58:

(Start: 19 @42247 has 18 MA's), (26, 42304), (40, 42415), (48, 42475), (53, 42505), (59, 42532),

Gene: MissSwiss\_64 Start: 40483, Stop: 40842, Start Num: 11

Candidate Starts for MissSwiss\_64:

(Start: 11 @40483 has 8 MA's), (66, 40828),

Gene: Moki\_55 Start: 40609, Stop: 40959, Start Num: 14

Candidate Starts for Moki\_55:

(Start: 6 @40486 has 1 MA's), (7, 40561), (Start: 14 @40609 has 16 MA's), (38, 40786), (40, 40789), (61, 40915),

Gene: MrBoss\_60 Start: 41258, Stop: 41593, Start Num: 19

Candidate Starts for MrBoss\_60:

(Start: 19 @41258 has 18 MA's), (40, 41426), (48, 41486), (53, 41516), (59, 41543), (60, 41546), (65, 41579),

Gene: MrGloopy\_58 Start: 41899, Stop: 42234, Start Num: 19

Candidate Starts for MrGloopy\_58:

(Start: 19 @41899 has 18 MA's), (26, 41956), (40, 42067), (41, 42070), (48, 42127), (53, 42157), (59, 42184),

Gene: Mudpuppy\_62 Start: 41921, Stop: 42277, Start Num: 12

Candidate Starts for Mudpuppy\_62:

(Start: 12 @41921 has 30 MA's), (60, 42224), (66, 42263),

Gene: Nancia\_56 Start: 40943, Stop: 41293, Start Num: 14

Candidate Starts for Nancia\_56:

(Start: 14 @40943 has 16 MA's), (24, 40991), (38, 41120), (40, 41123), (61, 41249),

Gene: Necrophoxinus\_105 Start: 54949, Stop: 54626, Start Num: 20

Candidate Starts for Necrophoxinus\_105:

(Start: 20 @54949 has 7 MA's), (22, 54934), (27, 54880), (37, 54808), (39, 54787), (49, 54730), (52, 54709), (58, 54694), (63, 54664), (64, 54652), (65, 54646), (66, 54640),

Gene: Neuville\_58 Start: 35358, Stop: 34981, Start Num: 9

Candidate Starts for Neuville\_58:

(Start: 9 @35358 has 1 MA's), (48, 35094), (54, 35061),

Gene: Niobe\_63 Start: 41724, Stop: 42080, Start Num: 12

Candidate Starts for Niobe\_63:

(Start: 12 @41724 has 30 MA's), (60, 42027), (66, 42066),

Gene: Nitro\_64 Start: 42421, Stop: 42777, Start Num: 12

Candidate Starts for Nitro\_64:

(Start: 12 @42421 has 30 MA's), (48, 42667), (60, 42724), (66, 42763),

Gene: ObiToo\_68 Start: 42061, Stop: 42417, Start Num: 12

Candidate Starts for ObiToo\_68:

(Start: 12 @42061 has 30 MA's), (34, 42211), (48, 42307), (61, 42370), (66, 42403),

Gene: OurGirlNessie\_54 Start: 40272, Stop: 40622, Start Num: 14

Candidate Starts for OurGirlNessie\_54:

(Start: 14 @40272 has 16 MA's), (38, 40449), (40, 40452), (60, 40572),

Gene: Oxynfrius\_58 Start: 42154, Stop: 42504, Start Num: 15

Candidate Starts for Oxynfrius\_58:

(Start: 15 @42154 has 3 MA's), (22, 42184), (24, 42205), (36, 42310), (40, 42337), (48, 42397), (51, 42412), (53, 42427), (59, 42454), (60, 42457),

Gene: PartyCup\_59 Start: 42112, Stop: 42447, Start Num: 19

Candidate Starts for PartyCup\_59:

(Start: 19 @42112 has 18 MA's), (40, 42280), (48, 42340), (53, 42370), (59, 42397), (60, 42400), (65, 42433),

Gene: Phives\_64 Start: 42209, Stop: 42565, Start Num: 12

Candidate Starts for Phives\_64:

(Start: 12 @42209 has 30 MA's), (Start: 16 @42221 has 6 MA's), (50, 42464), (66, 42551),

Gene: PitaDog\_56 Start: 40668, Stop: 41018, Start Num: 14

Candidate Starts for PitaDog\_56:

(Start: 14 @40668 has 16 MA's), (38, 40845), (40, 40848), (61, 40974),

Gene: Polyuyki\_76 Start: 55281, Stop: 54901, Start Num: 18

Candidate Starts for Polyuyki\_76:

(Start: 18 @55281 has 6 MA's), (35, 55131),

Gene: Powerpuff\_65 Start: 42757, Stop: 43113, Start Num: 12

Candidate Starts for Powerpuff\_65:

(Start: 12 @42757 has 30 MA's), (60, 43060), (66, 43099),

Gene: Preamble\_57 Start: 40868, Stop: 41209, Start Num: 17

Candidate Starts for Preamble\_57:

(Start: 17 @40868 has 1 MA's), (38, 41039), (51, 41114), (59, 41156), (60, 41159),

Gene: Pterodactyl\_56 Start: 40909, Stop: 41259, Start Num: 14

Candidate Starts for Pterodactyl\_56:

(Start: 14 @40909 has 16 MA's), (38, 41086), (40, 41089), (61, 41215),

Gene: RAP15\_59 Start: 42248, Stop: 42583, Start Num: 19

Candidate Starts for RAP15\_59:

(Start: 19 @42248 has 18 MA's), (26, 42305), (40, 42416), (48, 42476), (53, 42506), (59, 42533),

Gene: Roberts\_58 Start: 35358, Stop: 34981, Start Num: 9

Candidate Starts for Roberts\_58:

(Start: 9 @35358 has 1 MA's), (48, 35094), (54, 35061),

Gene: Scuttle\_57 Start: 41927, Stop: 42262, Start Num: 19

Candidate Starts for Scuttle\_57:

(Start: 19 @41927 has 18 MA's), (26, 41984), (28, 42002), (40, 42095), (41, 42098), (48, 42155), (51, 42170), (59, 42212),

Gene: Sergei\_55 Start: 41677, Stop: 42018, Start Num: 19

Candidate Starts for Sergei\_55:

(Start: 19 @41677 has 18 MA's), (40, 41848), (44, 41869), (47, 41902), (60, 41965), (62, 41977),

Gene: Shroomer\_106 Start: 54550, Stop: 54227, Start Num: 20

Candidate Starts for Shroomer\_106:

(Start: 20 @54550 has 7 MA's), (22, 54535), (27, 54481), (37, 54409), (39, 54388), (48, 54334), (52, 54310), (58, 54295), (63, 54265), (65, 54247), (66, 54241),

Gene: Simpson\_69 Start: 41959, Stop: 42315, Start Num: 12

Candidate Starts for Simpson\_69:

(Start: 12 @41959 has 30 MA's), (48, 42205), (60, 42262), (66, 42301),

Gene: Skelbel\_64 Start: 41724, Stop: 42080, Start Num: 12

Candidate Starts for Skelbel\_64:

(Start: 12 @41724 has 30 MA's), (60, 42027), (66, 42066),

Gene: Snek\_63 Start: 39170, Stop: 39511, Start Num: 12

Candidate Starts for Snek\_63:

(Start: 12 @39170 has 30 MA's), (63, 39473),

Gene: Soondubu\_60 Start: 43780, Stop: 44127, Start Num: 13

Candidate Starts for Soondubu\_60:

(Start: 13 @43780 has 1 MA's), (57, 44059), (65, 44110),

Gene: SteakFry\_102 Start: 54710, Stop: 54387, Start Num: 20

Candidate Starts for SteakFry\_102:

(Start: 20 @54710 has 7 MA's), (22, 54695), (27, 54641), (37, 54569), (39, 54548), (49, 54491), (52, 54470), (58, 54455), (63, 54425), (64, 54413), (65, 54407), (66, 54401),

Gene: StevieWelch\_103 Start: 54233, Stop: 53910, Start Num: 20

Candidate Starts for StevieWelch\_103:

(Start: 20 @54233 has 7 MA's), (22, 54218), (27, 54164), (37, 54092), (39, 54071), (49, 54014), (52, 53993), (58, 53978), (63, 53948), (64, 53936), (65, 53930), (66, 53924),

Gene: Studio\_60 Start: 36548, Stop: 36171, Start Num: 9

Candidate Starts for Studio\_60:

(Start: 9 @36548 has 1 MA's), (29, 36437), (32, 36410), (33, 36392), (35, 36377), (46, 36299), (48, 36284), (54, 36251),

Gene: Subaru\_63 Start: 41480, Stop: 41836, Start Num: 12

Candidate Starts for Subaru\_63:

(Start: 12 @41480 has 30 MA's), (34, 41630), (60, 41783), (66, 41822),

Gene: Sue2\_61 Start: 40180, Stop: 40542, Start Num: 11

Candidate Starts for Sue2\_61:

(Start: 11 @40180 has 8 MA's), (21, 40213), (48, 40429), (56, 40465),

Gene: Suppi\_58 Start: 41917, Stop: 42252, Start Num: 19

Candidate Starts for Suppi\_58:

(Start: 19 @41917 has 18 MA's), (40, 42085), (48, 42145), (53, 42175), (59, 42202), (60, 42205), (65, 42238),

Gene: TPA2\_52 Start: 39328, Stop: 38936, Start Num: 10

Candidate Starts for TPA2\_52:

(10, 39328), (33, 39178), (42, 39118), (48, 39067), (56, 39013),

Gene: Tallboi\_63 Start: 41726, Stop: 42082, Start Num: 12

Candidate Starts for Tallboi\_63:

(Start: 12 @41726 has 30 MA's), (48, 41972), (60, 42029), (66, 42068),

Gene: Tbone\_63 Start: 42208, Stop: 42564, Start Num: 12

Candidate Starts for Tbone\_63:

(Start: 12 @42208 has 30 MA's), (60, 42511), (66, 42550),

Gene: Temper16\_55 Start: 41677, Stop: 42018, Start Num: 19  
Candidate Starts for Temper16\_55:  
(Start: 19 @41677 has 18 MA's), (40, 41848), (44, 41869), (47, 41902), (60, 41965), (62, 41977),

Gene: ThursdayNight\_67 Start: 43091, Stop: 43429, Start Num: 12  
Candidate Starts for ThursdayNight\_67:  
(Start: 12 @43091 has 30 MA's), (53, 43349),

Gene: Tuck\_63 Start: 41997, Stop: 42353, Start Num: 12  
Candidate Starts for Tuck\_63:  
(Start: 12 @41997 has 30 MA's), (Start: 16 @42009 has 6 MA's), (50, 42252), (66, 42339),

Gene: Turab\_62 Start: 41182, Stop: 41538, Start Num: 12  
Candidate Starts for Turab\_62:  
(Start: 12 @41182 has 30 MA's), (34, 41332), (60, 41485), (66, 41524),

Gene: Tutumahutu\_65 Start: 41800, Stop: 42156, Start Num: 12  
Candidate Starts for Tutumahutu\_65:  
(Start: 12 @41800 has 30 MA's), (60, 42103), (66, 42142),

Gene: Tweety19\_64 Start: 39171, Stop: 39512, Start Num: 12  
Candidate Starts for Tweety19\_64:  
(Start: 12 @39171 has 30 MA's), (63, 39474),

Gene: Urla\_56 Start: 41609, Stop: 41959, Start Num: 14  
Candidate Starts for Urla\_56:  
(Start: 14 @41609 has 16 MA's), (24, 41657), (38, 41786), (40, 41789), (61, 41915),

Gene: VResidence\_64 Start: 39888, Stop: 40247, Start Num: 11  
Candidate Starts for VResidence\_64:  
(Start: 11 @39888 has 8 MA's), (34, 40041),

Gene: Warda\_64 Start: 41934, Stop: 42290, Start Num: 12  
Candidate Starts for Warda\_64:  
(Start: 12 @41934 has 30 MA's), (60, 42237), (66, 42276),

Gene: Wayne\_60 Start: 42374, Stop: 42709, Start Num: 19  
Candidate Starts for Wayne\_60:  
(Start: 19 @42374 has 18 MA's), (40, 42542), (48, 42602), (53, 42632), (59, 42659), (60, 42662), (65, 42695),

Gene: Welcome\_105 Start: 54864, Stop: 54541, Start Num: 20  
Candidate Starts for Welcome\_105:  
(Start: 20 @54864 has 7 MA's), (22, 54849), (27, 54795), (37, 54723), (39, 54702), (49, 54645), (52, 54624), (58, 54609), (63, 54579), (64, 54567), (65, 54561), (66, 54555),

Gene: Wildwest\_59 Start: 41597, Stop: 41956, Start Num: 11  
Candidate Starts for Wildwest\_59:  
(Start: 11 @41597 has 8 MA's), (21, 41630), (60, 41903), (66, 41942),

Gene: YesChef\_63 Start: 41616, Stop: 41972, Start Num: 12  
Candidate Starts for YesChef\_63:  
(Start: 12 @41616 has 30 MA's), (60, 41919), (66, 41958),

