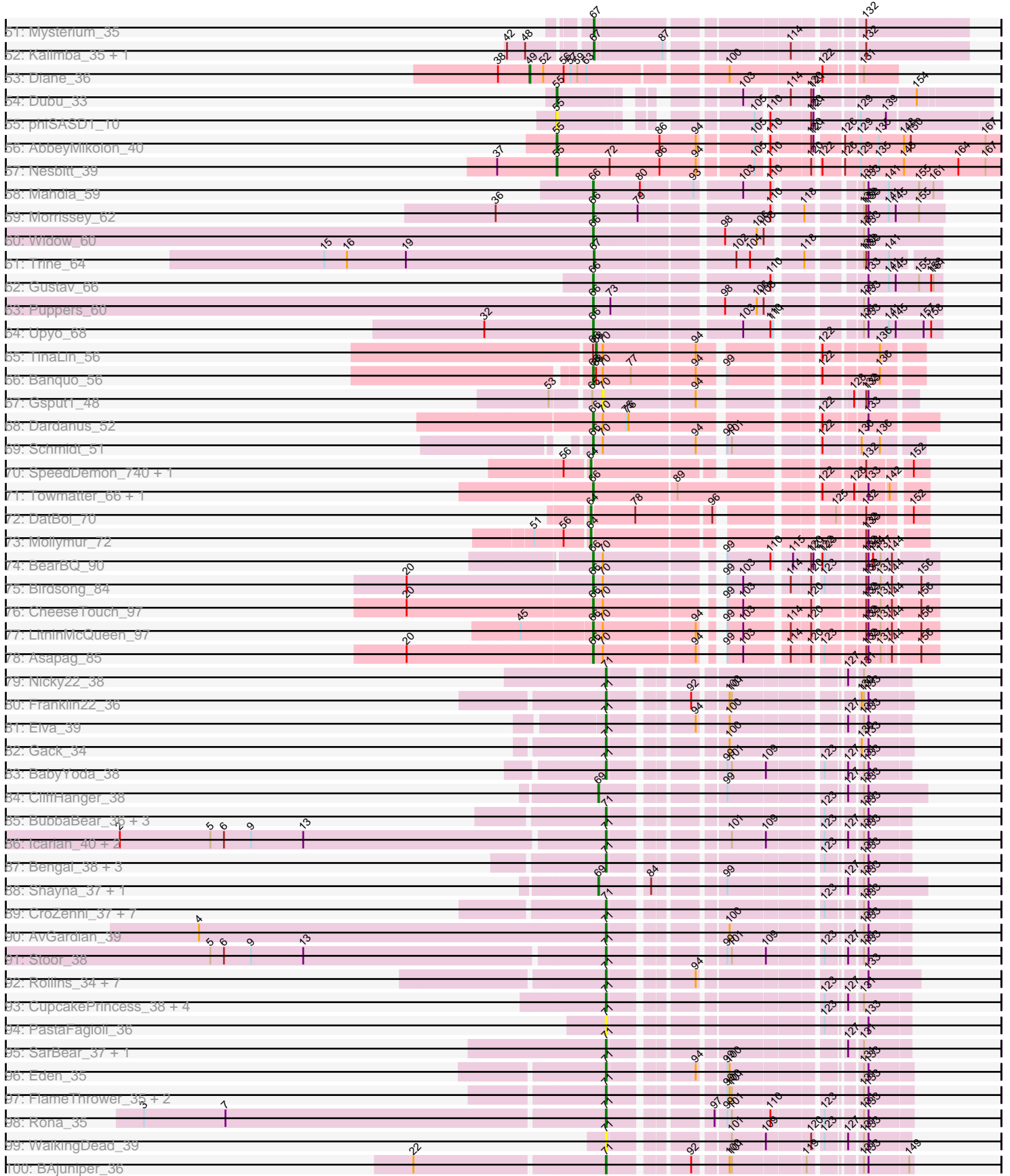
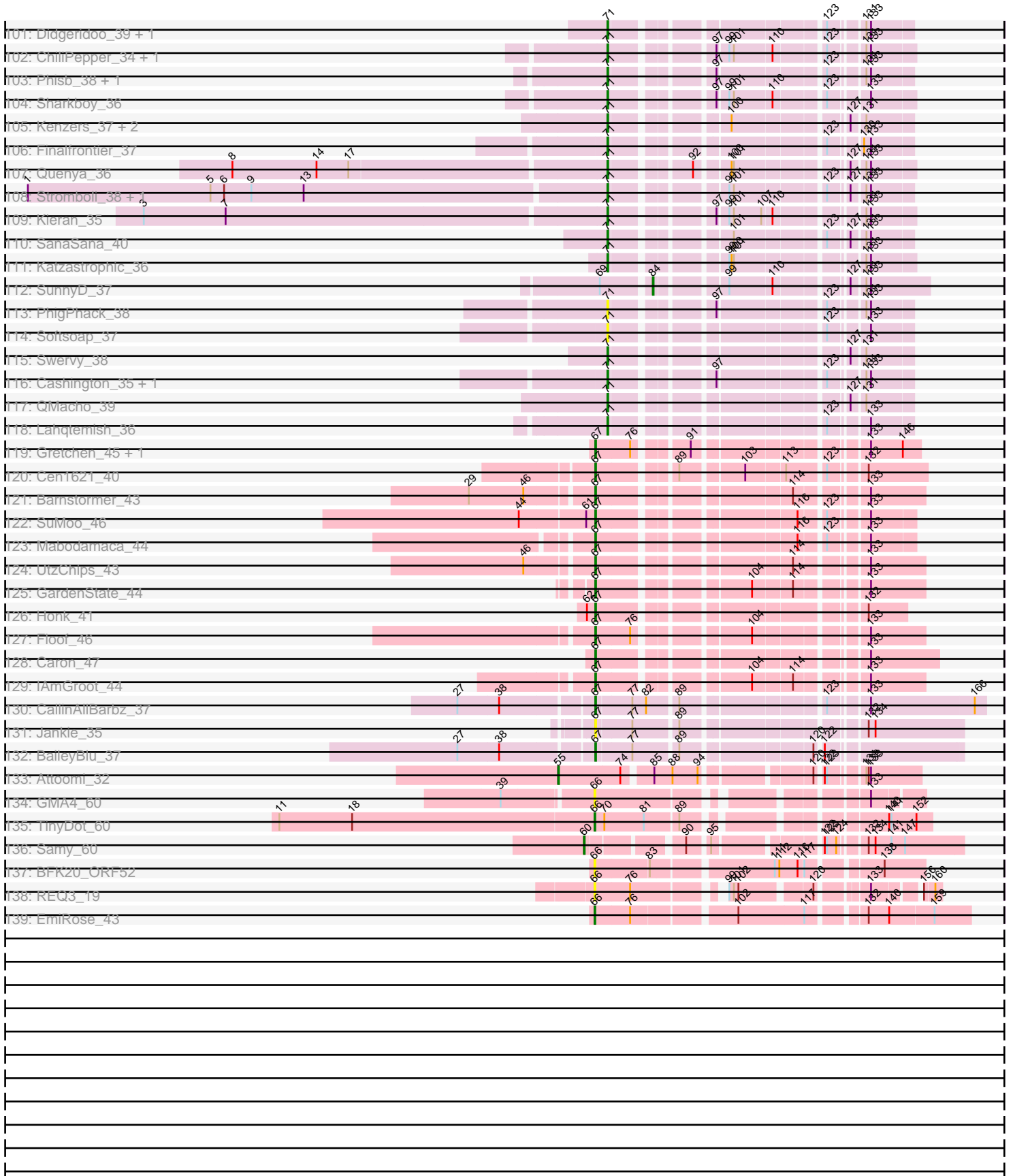




Pham 202688



Pham 202688



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 202688 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202688 has 204 members, 33 are drafts.

Phages represented in each track:

- Track 1 : AinMach\_39
- Track 2 : Exile\_33
- Track 3 : Soondubu\_33
- Track 4 : Lizalica\_34
- Track 5 : DrSierra\_34
- Track 6 : Elezi\_35, London\_35
- Track 7 : Niobe\_35, Eraser\_35, Jstan\_37, Asa16\_35
- Track 8 : Cyan\_35
- Track 9 : Lego\_35
- Track 10 : Mudpuppy\_34
- Track 11 : Tuck\_39, Community\_38
- Track 12 : Kaylissa\_35, JohnDoe\_35, AGrandiflora\_36, Powerpuff\_37, YesChef\_35
- Track 13 : Phives\_38
- Track 14 : Tian\_35, Pixelle\_35, Amyev\_35
- Track 15 : Warda\_35, Tbone\_34
- Track 16 : Turab\_34, AEgle\_34
- Track 17 : MissSwiss\_35
- Track 18 : Crewmate\_41, ObiToo\_40
- Track 19 : Reedo\_35
- Track 20 : Shaffner\_37
- Track 21 : Berrie\_37
- Track 22 : Cassia\_36
- Track 23 : Yang\_36
- Track 24 : Nitro\_36
- Track 25 : KeAlii\_36
- Track 26 : Janeemi\_38
- Track 27 : Pumpkins\_36
- Track 28 : Wildwest\_35
- Track 29 : DrManhattan\_35
- Track 30 : Joemato\_35, Tutumahutu\_35, Simpson\_37
- Track 31 : Adolin\_35
- Track 32 : JuneStar\_37
- Track 33 : TforTroy\_37
- Track 34 : Tallboi\_36
- Track 35 : Ascela\_37, Iter\_37
- Track 36 : Sue2\_36
- Track 37 : IttyBittyPiggy\_36

- Track 38 : VResidence\_36
- Track 39 : Adumb2043\_34
- Track 40 : MaGuCo\_35
- Track 41 : Liebe\_37, Maureen\_37
- Track 42 : Snek\_35, Tweety19\_35
- Track 43 : JasmineDragon\_40, ShakeltOph\_42, MiniMommy\_42
- Track 44 : LadyAstra\_43
- Track 45 : VroomVroom\_40
- Track 46 : Emotion\_40
- Track 47 : Gambol\_36, Sooty\_35, Cappuccino\_35
- Track 48 : Ashes\_35, Halsey\_35
- Track 49 : SpecialK\_35
- Track 50 : Moss\_35
- Track 51 : Mysterium\_35
- Track 52 : Kalimba\_35, Donkey\_35
- Track 53 : Diane\_36
- Track 54 : Dubu\_33
- Track 55 : phiSASD1\_10
- Track 56 : AbbeyMikolon\_40
- Track 57 : Nesbitt\_39
- Track 58 : Mahdia\_59
- Track 59 : Morrissey\_62
- Track 60 : Widow\_60
- Track 61 : Trine\_64
- Track 62 : Gustav\_66
- Track 63 : Puppies\_60
- Track 64 : Upyo\_68
- Track 65 : TinaLin\_56
- Track 66 : Banquo\_56
- Track 67 : Gspu1\_48
- Track 68 : Dardanus\_52
- Track 69 : Schmidt\_51
- Track 70 : SpeedDemon\_740, Bantam\_72
- Track 71 : Towmatter\_66, Daredevil\_63
- Track 72 : DatBoi\_70
- Track 73 : Mollymur\_72
- Track 74 : BearBQ\_90
- Track 75 : Birdsong\_84
- Track 76 : CheeseTouch\_97
- Track 77 : LitninMcQueen\_97
- Track 78 : Asapag\_85
- Track 79 : Nicky22\_38
- Track 80 : Franklin22\_36
- Track 81 : Elva\_39
- Track 82 : Gack\_34
- Track 83 : BabyYoda\_38
- Track 84 : CliffHanger\_38
- Track 85 : BubbaBear\_36, Abigail\_36, SansAfet\_38, LimaBean\_36
- Track 86 : Icarian\_40, Loviatar\_67, Akino08\_69
- Track 87 : Bengal\_38, Doobus\_36, Albright\_35, Avocadoman\_36
- Track 88 : Shayna\_37, Teagster\_38
- Track 89 : CroZenni\_37, AnnaLie\_38, Burritobowl\_37, BelmontSKP\_38, Arroyo\_38, Johnathan\_36, DickRichards\_36, IndyLu\_36

- Track 90 : AvGardian\_39
- Track 91 : Stoor\_38
- Track 92 : Rollins\_34, Coltrane\_34, Brahms\_34, Armstrong\_34, Vitas\_34, Skylord\_34, Clayda5\_35, Bernstein\_34
- Track 93 : CupcakePrincess\_38, Jabb\_38, Eula\_38, Jovita\_38, MsUbiquitous\_38
- Track 94 : PastaFagioli\_36
- Track 95 : SarBear\_37, Slay\_38
- Track 96 : Eden\_35
- Track 97 : FlameThrower\_35, Celaena\_35, Bachaco\_35
- Track 98 : Rona\_35
- Track 99 : WalkingDead\_39
- Track 100 : BAjuniper\_36
- Track 101 : Didgeridoo\_39, Kate33\_36
- Track 102 : ChiliPepper\_34, Dismas\_35
- Track 103 : Phisb\_38, TukTuk\_38
- Track 104 : Sharkboy\_36
- Track 105 : Kenzers\_37, Lynlen\_37, Albedo\_37
- Track 106 : Finalfrontier\_37
- Track 107 : Quenya\_36
- Track 108 : Stromboli\_38, DirtyBubble\_37
- Track 109 : Kieran\_35
- Track 110 : SanaSana\_40
- Track 111 : Katzastrophic\_36
- Track 112 : SunnyD\_37
- Track 113 : PhigPhack\_38
- Track 114 : Softsoap\_37
- Track 115 : Swervy\_38
- Track 116 : Cashington\_35, BabyDaisy\_36
- Track 117 : QMacho\_39
- Track 118 : Lahqtemish\_36
- Track 119 : Gretchen\_45, Percival\_46
- Track 120 : Cen1621\_40
- Track 121 : Barnstormer\_43
- Track 122 : SuMoo\_46
- Track 123 : Mabodamaca\_44
- Track 124 : UtzChips\_43
- Track 125 : GardenState\_44
- Track 126 : Honk\_41
- Track 127 : Floof\_46
- Track 128 : Caron\_47
- Track 129 : IAmGroot\_44
- Track 130 : CallinAllBarbz\_37
- Track 131 : Jankie\_35
- Track 132 : BaileyBlu\_37
- Track 133 : Attoomi\_32
- Track 134 : GMA4\_60
- Track 135 : TinyDot\_60
- Track 136 : Samy\_60
- Track 137 : BFK20\_ORF52
- Track 138 : REQ3\_19
- Track 139 : EmiRose\_43

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

The start number called the most often in the published annotations is 67, it was called in 73 of the 171 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle\_34, AGrandiflora\_36, Adolin\_35, Adumb2043\_34, AinMach\_39, Amyev\_35, Asa16\_35, Ascela\_37, Ashes\_35, BaileyBlu\_37, Barnstormer\_43, Berrie\_37, CallinAllBarbz\_37, Cappuccino\_35, Caron\_47, Cassia\_36, Cen1621\_40, Community\_38, Crewmate\_41, Cyan\_35, Donkey\_35, DrManhattan\_35, DrSierra\_34, Elezi\_35, Emotion\_40, Eraser\_35, Exile\_33, Floof\_46, Gambol\_36, GardenState\_44, Gretchen\_45, Halsey\_35, Honk\_41, IAmGroot\_44, Iter\_37, IttyBittyPiggy\_36, Janeemi\_38, Jankie\_35, JasmineDragon\_40, Joemato\_35, JohnDoe\_35, Jstan\_37, Kalimba\_35, Kaylissa\_35, KeAlii\_36, LadyAstra\_43, Lego\_35, Liebe\_37, Lizalica\_34, London\_35, Mabodamaca\_44, Maureen\_37, MiniMommy\_42, MissSwiss\_35, Moss\_35, Mudpuppy\_34, Mysterium\_35, Niobe\_35, Nitro\_36, ObiToo\_40, Percival\_46, Phives\_38, Pixelle\_35, Powerpuff\_37, Reedo\_35, ShakeltOph\_42, Simpson\_37, Snek\_35, Soondubu\_33, Sooty\_35, SpecialK\_35, SuMoo\_46, Sue2\_36, Tallboi\_36, Tbone\_34, Tian\_35, Trine\_64, Tuck\_39, Turab\_34, Tutumahutu\_35, Tweety19\_35, UtzChips\_43, VResidence\_36, VroomVroom\_40, Warda\_35, Wildwest\_35, YesChef\_35,

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

- 

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

- AbbeyMikolon\_40, Abigail\_36, Akino08\_69, Albedo\_37, Albright\_35, AnnaLie\_38, Armstrong\_34, Arroyo\_38, Asapag\_85, Attoomi\_32, AvGardian\_39, Avocadoman\_36, BAJuniper\_36, BFK20\_ORF52, BabyDaisy\_36, BabyYoda\_38, Bachaco\_35, Banquo\_56, Bantam\_72, BearBQ\_90, BelmontSKP\_38, Bengal\_38, Bernstein\_34, Birdsong\_84, Brahms\_34, BubbaBear\_36, Burritobowl\_37, Cashington\_35, Celaena\_35, CheeseTouch\_97, ChiliPepper\_34, Clayda5\_35, CliffHanger\_38, Coltrane\_34, CroZenni\_37, CupcakePrincess\_38, Dardanus\_52, Daredevil\_63, DatBoi\_70, Diane\_36, DickRichards\_36, Didgeridoo\_39, DirtyBubble\_37, Dismas\_35, Doobus\_36, Dubu\_33, Eden\_35, Elva\_39, EmiRose\_43, Eula\_38, Finalfrontier\_37, FlameThrower\_35, Franklin22\_36, GMA4\_60, Gack\_34, Gsput1\_48, Gustav\_66, Icarian\_40, IndyLu\_36, Jabb\_38, Johnathan\_36, Jovita\_38, JuneStar\_37, Kate33\_36, Katzastrophic\_36, Kenzers\_37, Kieran\_35, Lahqtemish\_36, LimaBean\_36, LitninMcQueen\_97, Loviatar\_67, Lynlen\_37, MaGuCo\_35, Mahdia\_59, Mollymur\_72, Morrissey\_62, MsUbiquitous\_38, Nesbitt\_39, Nicky22\_38, PastaFagioli\_36, PhigPhack\_38, Phisb\_38, Pumpkins\_36, Puppies\_60, QMacho\_39, Quenya\_36, REQ3\_19, Rollins\_34, Rona\_35, Samy\_60, SanaSana\_40, SansAfet\_38, SarBear\_37, Schmidt\_51, Shaffner\_37, Sharkboy\_36, Shayna\_37, Skylord\_34, Slay\_38, Softsoap\_37, SpeedDemon\_740, Stoor\_38, Stromboli\_38, SunnyD\_37, Swervy\_38, Teagster\_38, TforTroy\_37, TinaLin\_56, TinyDot\_60, Towmatter\_66, TukTuk\_38, Upyo\_68, Vitas\_34, WalkingDead\_39, Widow\_60, Yang\_36, phiSASD1\_10,

### **Summary by start number:**

Start 49:

- Found in 1 of 204 ( 0.5% ) of genes in pham

- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Diane\_36 (BD2),

#### Start 55:

- Found in 5 of 204 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 4 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon\_40 (BL), Attoomi\_32 (singleton), Dubu\_33 (BJ), Nesbitt\_39 (BL), phiSASD1\_10 (BJ),

#### Start 60:

- Found in 1 of 204 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Samy\_60 (singleton),

#### Start 64:

- Found in 4 of 204 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 4 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam\_72 (DL), DatBoi\_70 (DL), Mollymur\_72 (DL), SpeedDemon\_740 (DL),

#### Start 66:

- Found in 27 of 204 ( 13.2% ) of genes in pham
- Manual Annotations of this start: 21 of 171
- Called 96.3% of time when present
- Phage (with cluster) where this start called: Asapag\_85 (DN1), BFK20\_ORF52 (singleton), Banquo\_56 (CU1), BearBQ\_90 (DN), Birdsong\_84 (DN), CheeseTouch\_97 (DN1), Dardanus\_52 (CU3), Daredevil\_63 (DL), EmiRose\_43 (singleton), GMA4\_60 (singleton), Gustav\_66 (CD), JuneStar\_37 (AZ1), LitninMcQueen\_97 (DN1), Mahdia\_59 (CD), Morrissey\_62 (CD), Pumpkins\_36 (AZ1), Puppies\_60 (CD), REQ3\_19 (singleton), Schmidt\_51 (CU4), Shaffner\_37 (AZ1), TforTroy\_37 (AZ1), TinyDot\_60 (singleton), Towmatter\_66 (DL), Upyo\_68 (CD), Widow\_60 (CD), Yang\_36 (AZ1),

#### Start 67:

- Found in 87 of 204 ( 42.6% ) of genes in pham
- Manual Annotations of this start: 73 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle\_34 (AZ1), AGrandiflora\_36 (AZ1), Adolin\_35 (AZ1), Adumb2043\_34 (AZ1), AinMach\_39 (AZ), Amyev\_35 (AZ1), Asa16\_35 (AZ1), Ascela\_37 (AZ1), Ashes\_35 (AZ5), BaileyBlu\_37 (FP), Barnstormer\_43 (EH), Berrie\_37 (AZ1), CallinAllBarbz\_37 (FP), Cappuccino\_35 (AZ5), Caron\_47 (EH), Cassia\_36 (AZ1), Cen1621\_40 (EH), Community\_38 (AZ1), Crewmate\_41 (AZ1), Cyan\_35 (AZ1), Donkey\_35 (AZ5), DrManhattan\_35 (AZ1), DrSierra\_34 (AZ1), Elezi\_35 (AZ1), Emotion\_40 (AZ4), Eraser\_35 (AZ1), Exile\_33 (AZ), Floof\_46 (EH), Gambol\_36 (AZ5), GardenState\_44 (EH), Gretchen\_45 (EH), Halsey\_35 (AZ5), Honk\_41 (EH), IAmGroot\_44 (EH), Iter\_37 (AZ1), IttyBittyPiggy\_36 (AZ1), Janeemi\_38 (AZ1), Jankie\_35 (FP), JasmineDragon\_40 (AZ4), Joemato\_35 (AZ1), JohnDoe\_35 (AZ1), Jstan\_37 (AZ1), Kalimba\_35 (AZ5), Kaylissa\_35 (AZ1), KeAili\_36 (AZ1), LadyAstra\_43 (AZ4), Lego\_35 (AZ1), Liebe\_37 (AZ2), Lizalica\_34



(AZ1), London\_35 (AZ1), Mabodamaca\_44 (EH), Maureen\_37 (AZ2), MiniMommy\_42 (AZ4), MissSwiss\_35 (AZ1), Moss\_35 (AZ5), Mudpuppy\_34 (AZ1), Mysterium\_35 (AZ5), Niobe\_35 (AZ1), Nitro\_36 (AZ1), ObiToo\_40 (AZ1), Percival\_46 (EH), Phives\_38 (AZ1), Pixelle\_35 (AZ1), Powerpuff\_37 (AZ1), Reedo\_35 (AZ1), ShakeltOph\_42 (AZ4), Simpson\_37 (AZ1), Snek\_35 (AZ3), Soondubu\_33 (AZ), Sooty\_35 (AZ5), SpecialK\_35 (AZ5), SuMoo\_46 (EH), Sue2\_36 (AZ1), Tallboi\_36 (AZ1), Tbone\_34 (AZ1), Tian\_35 (AZ1), Trine\_64 (CD), Tuck\_39 (AZ1), Turab\_34 (AZ1), Tutumahutu\_35 (AZ1), Tweety19\_35 (AZ3), UtzChips\_43 (EH), VResidence\_36 (AZ1), VroomVroom\_40 (AZ4), Warda\_35 (AZ1), Wildwest\_35 (AZ1), YesChef\_35 (AZ1),

Start 68:

- Found in 2 of 204 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 50.0% of time when present
- Phage (with cluster) where this start called: TinaLin\_56 (CU1),

Start 69:

- Found in 4 of 204 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 3 of 171
- Called 75.0% of time when present
- Phage (with cluster) where this start called: CliffHanger\_38 (EB), Shayna\_37 (EB), Teagster\_38 (EB),

Start 70:

- Found in 11 of 204 ( 5.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Gspu1\_48 (CU2),

Start 71:

- Found in 73 of 204 ( 35.8% ) of genes in pham
- Manual Annotations of this start: 61 of 171
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail\_36 (EB), Akino08\_69 (EB), Albedo\_37 (EB), Albright\_35 (EB), AnnaLie\_38 (EB), Armstrong\_34 (EB), Arroyo\_38 (EB), AvGardian\_39 (EB), Avocadoman\_36 (EB), BAjuniper\_36 (EB), BabyDaisy\_36 (EB), BabyYoda\_38 (EB), Bachaco\_35 (EB), BelmontSKP\_38 (EB), Bengal\_38 (EB), Bernstein\_34 (EB), Brahms\_34 (EB), BubbaBear\_36 (EB), Burritobowl\_37 (EB), Cashington\_35 (EB), Celaena\_35 (EB), ChiliPepper\_34 (EB), Clayda5\_35 (EB), Coltrane\_34 (EB), CroZenni\_37 (EB), CupcakePrincess\_38 (EB), DickRichards\_36 (EB), Didgeridoo\_39 (EB), DirtyBubble\_37 (EB), Dismas\_35 (EB), Doobus\_36 (EB), Eden\_35 (EB), Elva\_39 (EB), Eula\_38 (EB), Finalfrontier\_37 (EB), FlameThrower\_35 (EB), Franklin22\_36 (EB), Gack\_34 (EB), Icarian\_40 (EB), IndyLu\_36 (EB), Jabb\_38 (EB), Johnathan\_36 (EB), Jovita\_38 (EB), Kate33\_36 (EB), Katzastrophic\_36 (EB), Kenzers\_37 (EB), Kieran\_35 (EB), Lahqtemish\_36 (EB), LimaBean\_36 (EB), Loviatar\_67 (EB), Lynlen\_37 (EB), MsUbiquitous\_38 (EB), Nicky22\_38 (EB), PastaFagioli\_36 (EB), PhigPhack\_38 (EB), Phisb\_38 (EB), QMacho\_39 (EB), Quenya\_36 (EB), Rollins\_34 (EB), Rona\_35 (EB), SanaSana\_40 (EB), SansAfet\_38 (EB), SarBear\_37 (EB), Sharkboy\_36 (EB), Skylord\_34 (EB), Slay\_38 (EB), Softsoap\_37 (EB), Stoor\_38 (EB), Stromboli\_38 (EB), Swervy\_38 (EB), TukTuk\_38 (EB), Vitas\_34 (EB), WalkingDead\_39 (EB),

Start 84:

- Found in 3 of 204 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 33.3% of time when present
- Phage (with cluster) where this start called: SunnyD\_37 (EB),

Start 87:

- Found in 8 of 204 ( 3.9% ) of genes in pham
- Manual Annotations of this start: 1 of 171
- Called 12.5% of time when present
- Phage (with cluster) where this start called: MaGuCo\_35 (AZ2),

### **Summary by clusters:**

There are 21 clusters represented in this pham: FP, DN, DL, AZ, CU3, EH, CU1, BL, AZ3, singleton, BJ, CD, CU4, DN1, BD2, AZ1, AZ2, EB, AZ4, AZ5, CU2,

Info for manual annotations of cluster AZ:

- Start number 67 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 66 was manually annotated 4 times for cluster AZ1.
- Start number 67 was manually annotated 40 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 67 was manually annotated 2 times for cluster AZ2.
- Start number 87 was manually annotated 1 time for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 67 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 67 was manually annotated 3 times for cluster AZ4.

Info for manual annotations of cluster AZ5:

- Start number 67 was manually annotated 10 times for cluster AZ5.

Info for manual annotations of cluster BD2:

- Start number 49 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BJ:

- Start number 55 was manually annotated 1 time for cluster BJ.

Info for manual annotations of cluster BL:

- Start number 55 was manually annotated 2 times for cluster BL.

Info for manual annotations of cluster CD:

- Start number 66 was manually annotated 6 times for cluster CD.
- Start number 67 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CU1:

- Start number 66 was manually annotated 1 time for cluster CU1.
- Start number 68 was manually annotated 1 time for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 66 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 66 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster DL:

- Start number 64 was manually annotated 4 times for cluster DL.
- Start number 66 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DN:

- Start number 66 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 66 was manually annotated 3 times for cluster DN1.

Info for manual annotations of cluster EB:

- Start number 69 was manually annotated 3 times for cluster EB.
- Start number 71 was manually annotated 61 times for cluster EB.
- Start number 84 was manually annotated 1 time for cluster EB.

Info for manual annotations of cluster EH:

- Start number 67 was manually annotated 12 times for cluster EH.

Info for manual annotations of cluster FP:

- Start number 67 was manually annotated 2 times for cluster FP.

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

Gene: AEgle\_34 Start: 25272, Stop: 25622, Start Num: 67

Candidate Starts for AEgle\_34:

(26, 25092), (34, 25146), (Start: 67 @25272 has 73 MA's), (77, 25317), (89, 25356), (123, 25518), (133, 25560),

Gene: AGrandiflora\_36 Start: 25133, Stop: 25576, Start Num: 67

Candidate Starts for AGrandiflora\_36:

(Start: 67 @25133 has 73 MA's), (120, 25385), (133, 25436),

Gene: AbbeyMikolon\_40 Start: 26256, Stop: 26795, Start Num: 55

Candidate Starts for AbbeyMikolon\_40:

(Start: 55 @26256 has 4 MA's), (86, 26391), (94, 26439), (105, 26499), (110, 26511), (120, 26559), (121, 26562), (126, 26589), (129, 26610), (135, 26634), (148, 26667), (150, 26676), (167, 26775),

Gene: Abigail\_36 Start: 25222, Stop: 25548, Start Num: 71

Candidate Starts for Abigail\_36:

(Start: 71 @25222 has 61 MA's), (123, 25453), (131, 25489), (133, 25495),

Gene: Adolin\_35 Start: 24126, Stop: 24476, Start Num: 67

Candidate Starts for Adolin\_35:

(28, 23973), (34, 24003), (45, 24045), (Start: 67 @24126 has 73 MA's), (89, 24210), (133, 24414), (134, 24420),

Gene: Adumb2043\_34 Start: 25291, Stop: 25641, Start Num: 67

Candidate Starts for Adumb2043\_34:

(Start: 67 @25291 has 73 MA's), (77, 25336), (89, 25375), (123, 25537), (133, 25579),

Gene: AinMach\_39 Start: 26488, Stop: 26916, Start Num: 67

Candidate Starts for AinMach\_39:

(54, 26443), (58, 26470), (Start: 67 @26488 has 73 MA's), (79, 26545), (110, 26695), (120, 26743), (123, 26752), (133, 26794), (140, 26818), (141, 26821),

Gene: Akino08\_69 Start: 27649, Stop: 27975, Start Num: 71

Candidate Starts for Akino08\_69:

(2, 27016), (5, 27136), (6, 27154), (9, 27190), (13, 27259), (Start: 71 @27649 has 61 MA's), (101, 27775), (109, 27817), (123, 27880), (127, 27901), (131, 27916), (133, 27922),

Gene: Albedo\_37 Start: 25772, Stop: 26098, Start Num: 71

Candidate Starts for Albedo\_37:

(Start: 71 @25772 has 61 MA's), (100, 25895), (127, 26024), (131, 26039),

Gene: Albright\_35 Start: 24924, Stop: 25250, Start Num: 71

Candidate Starts for Albright\_35:

(Start: 71 @24924 has 61 MA's), (123, 25155), (131, 25191), (133, 25197),

Gene: Amyev\_35 Start: 26817, Stop: 27164, Start Num: 67

Candidate Starts for Amyev\_35:

(Start: 67 @26817 has 73 MA's), (89, 26901), (123, 27063), (133, 27105),

Gene: AnnaLie\_38 Start: 26045, Stop: 26371, Start Num: 71

Candidate Starts for AnnaLie\_38:

(Start: 71 @26045 has 61 MA's), (123, 26276), (131, 26312), (133, 26318),

Gene: Armstrong\_34 Start: 23647, Stop: 23988, Start Num: 71

Candidate Starts for Armstrong\_34:

(Start: 71 @23647 has 61 MA's), (94, 23740), (133, 23920),

Gene: Arroyo\_38 Start: 26083, Stop: 26409, Start Num: 71

Candidate Starts for Arroyo\_38:

(Start: 71 @26083 has 61 MA's), (123, 26314), (131, 26350), (133, 26356),

Gene: Asa16\_35 Start: 26861, Stop: 27211, Start Num: 67

Candidate Starts for Asa16\_35:

(Start: 67 @26861 has 73 MA's), (77, 26906), (89, 26945), (100, 26999), (120, 27098), (133, 27149),

Gene: Asapag\_85 Start: 49353, Stop: 49730, Start Num: 66

Candidate Starts for Asapag\_85:

(20, 49113), (Start: 66 @49353 has 21 MA's), (70, 49365), (94, 49482), (99, 49494), (103, 49515), (114, 49566), (120, 49590), (123, 49599), (132, 49644), (133, 49647), (137, 49662), (144, 49674), (156, 49707),

Gene: Ascela\_37 Start: 25854, Stop: 26297, Start Num: 67

Candidate Starts for Ascela\_37:

(31, 25725), (Start: 67 @25854 has 73 MA's), (77, 25899), (120, 26106), (123, 26115), (133, 26157), (134, 26163),

Gene: Ashes\_35 Start: 24212, Stop: 24646, Start Num: 67

Candidate Starts for Ashes\_35:

(42, 24116), (48, 24140), (Start: 67 @24212 has 73 MA's), (132, 24512),

Gene: Attoomi\_32 Start: 23857, Stop: 24264, Start Num: 55

Candidate Starts for Attoomi\_32:

(Start: 55 @23857 has 4 MA's), (74, 23938), (85, 23971), (88, 23995), (94, 24028), (120, 24148), (122, 24154), (123, 24157), (131, 24193), (132, 24196), (133, 24199),

Gene: AvGardian\_39 Start: 26215, Stop: 26541, Start Num: 71

Candidate Starts for AvGardian\_39:

(4, 25681), (Start: 71 @26215 has 61 MA's), (100, 26338), (131, 26482), (133, 26488),

Gene: Avocadoman\_36 Start: 25161, Stop: 25487, Start Num: 71

Candidate Starts for Avocadoman\_36:

(Start: 71 @25161 has 61 MA's), (123, 25392), (131, 25428), (133, 25434),

Gene: BAjuniper\_36 Start: 26884, Stop: 27216, Start Num: 71

Candidate Starts for BAjuniper\_36:

(22, 26641), (Start: 71 @26884 has 61 MA's), (92, 26974), (100, 27010), (101, 27013), (119, 27103), (131, 27154), (133, 27160), (149, 27211),

Gene: BFK20\_ORF52 Start: 41172, Stop: 41558, Start Num: 66

Candidate Starts for BFK20\_ORF52:

(Start: 66 @41172 has 21 MA's), (83, 41238), (111, 41385), (112, 41391), (116, 41415), (117, 41421), (138, 41505),

Gene: BabyDaisy\_36 Start: 25684, Stop: 26010, Start Num: 71

Candidate Starts for BabyDaisy\_36:

(Start: 71 @25684 has 61 MA's), (97, 25792), (123, 25915), (131, 25951), (133, 25957),

Gene: BabyYoda\_38 Start: 26829, Stop: 27155, Start Num: 71

Candidate Starts for BabyYoda\_38:

(Start: 71 @26829 has 61 MA's), (99, 26949), (101, 26955), (109, 26997), (123, 27060), (127, 27081), (131, 27096), (133, 27102),

Gene: Bachaco\_35 Start: 26844, Stop: 27173, Start Num: 71

Candidate Starts for Bachaco\_35:

(Start: 71 @26844 has 61 MA's), (99, 26964), (100, 26967), (101, 26970), (131, 27111), (133, 27117),

Gene: BaileyBlu\_37 Start: 25414, Stop: 25836, Start Num: 67

Candidate Starts for BaileyBlu\_37:

(27, 25246), (38, 25300), (Start: 67 @25414 has 73 MA's), (77, 25459), (89, 25513), (120, 25666), (122, 25672),

Gene: Banquo\_56 Start: 37048, Stop: 37422, Start Num: 66

Candidate Starts for Banquo\_56:

(Start: 66 @37048 has 21 MA's), (Start: 68 @37051 has 1 MA's), (70, 37060), (77, 37096), (94, 37177), (99, 37204), (122, 37306), (136, 37372),

Gene: Bantam\_72 Start: 52490, Stop: 52125, Start Num: 64  
Candidate Starts for Bantam\_72:  
(56, 52520), (Start: 64 @52490 has 4 MA's), (132, 52193), (152, 52145),

Gene: Barnstormer\_43 Start: 27456, Stop: 27818, Start Num: 67  
Candidate Starts for Barnstormer\_43:  
(29, 27303), (46, 27375), (Start: 67 @27456 has 73 MA's), (114, 27672), (133, 27747),

Gene: BearBQ\_90 Start: 50811, Stop: 51185, Start Num: 66  
Candidate Starts for BearBQ\_90:  
(Start: 66 @50811 has 21 MA's), (70, 50823), (99, 50952), (110, 51009), (115, 51027), (120, 51048),  
(121, 51051), (122, 51054), (123, 51057), (132, 51102), (133, 51105), (134, 51111), (137, 51120),  
(144, 51132),

Gene: BelmontSKP\_38 Start: 26045, Stop: 26371, Start Num: 71  
Candidate Starts for BelmontSKP\_38:  
(Start: 71 @26045 has 61 MA's), (123, 26276), (131, 26312), (133, 26318),

Gene: Bengal\_38 Start: 25673, Stop: 25999, Start Num: 71  
Candidate Starts for Bengal\_38:  
(Start: 71 @25673 has 61 MA's), (123, 25904), (131, 25940), (133, 25946),

Gene: Bernstein\_34 Start: 23702, Stop: 24043, Start Num: 71  
Candidate Starts for Bernstein\_34:  
(Start: 71 @23702 has 61 MA's), (94, 23795), (133, 23975),

Gene: Berrie\_37 Start: 26747, Stop: 27190, Start Num: 67  
Candidate Starts for Berrie\_37:  
(26, 26564), (35, 26618), (Start: 67 @26747 has 73 MA's), (120, 26999), (123, 27008), (132, 27047),  
(133, 27050),

Gene: Birdsong\_84 Start: 49089, Stop: 49466, Start Num: 66  
Candidate Starts for Birdsong\_84:  
(20, 48849), (Start: 66 @49089 has 21 MA's), (70, 49101), (99, 49230), (103, 49251), (114, 49302),  
(120, 49326), (123, 49335), (132, 49380), (133, 49383), (137, 49398), (144, 49410), (156, 49443),

Gene: Brahms\_34 Start: 23649, Stop: 23990, Start Num: 71  
Candidate Starts for Brahms\_34:  
(Start: 71 @23649 has 61 MA's), (94, 23742), (133, 23922),

Gene: BubbaBear\_36 Start: 25617, Stop: 25943, Start Num: 71  
Candidate Starts for BubbaBear\_36:  
(Start: 71 @25617 has 61 MA's), (123, 25848), (131, 25884), (133, 25890),

Gene: Burritobowl\_37 Start: 25618, Stop: 25944, Start Num: 71  
Candidate Starts for Burritobowl\_37:  
(Start: 71 @25618 has 61 MA's), (123, 25849), (131, 25885), (133, 25891),

Gene: CallinAllBarbz\_37 Start: 25811, Stop: 26263, Start Num: 67  
Candidate Starts for CallinAllBarbz\_37:  
(27, 25643), (38, 25697), (Start: 67 @25811 has 73 MA's), (77, 25856), (82, 25874), (89, 25910), (123,  
26072), (133, 26114), (166, 26249),

Gene: Cappuccino\_35 Start: 24079, Stop: 24513, Start Num: 67  
Candidate Starts for Cappuccino\_35:  
(42, 23983), (48, 24007), (Start: 67 @24079 has 73 MA's), (Start: 87 @24166 has 1 MA's), (132, 24379),

Gene: Caron\_47 Start: 28859, Stop: 29239, Start Num: 67  
Candidate Starts for Caron\_47:  
(Start: 67 @28859 has 73 MA's), (133, 29150),

Gene: Cashington\_35 Start: 24964, Stop: 25290, Start Num: 71  
Candidate Starts for Cashington\_35:  
(Start: 71 @24964 has 61 MA's), (97, 25072), (123, 25195), (131, 25231), (133, 25237),

Gene: Cassia\_36 Start: 25737, Stop: 26096, Start Num: 67  
Candidate Starts for Cassia\_36:  
(23, 25515), (Start: 67 @25737 has 73 MA's), (133, 26025),

Gene: Celaena\_35 Start: 26594, Stop: 26923, Start Num: 71  
Candidate Starts for Celaena\_35:  
(Start: 71 @26594 has 61 MA's), (99, 26714), (100, 26717), (101, 26720), (131, 26861), (133, 26867),

Gene: Cen1621\_40 Start: 25799, Stop: 26167, Start Num: 67  
Candidate Starts for Cen1621\_40:  
(Start: 67 @25799 has 73 MA's), (89, 25886), (103, 25958), (113, 26006), (123, 26051), (132, 26090),

Gene: CheeseTouch\_97 Start: 48676, Stop: 49053, Start Num: 66  
Candidate Starts for CheeseTouch\_97:  
(20, 48436), (Start: 66 @48676 has 21 MA's), (70, 48688), (99, 48817), (103, 48838), (120, 48913), (132, 48967), (133, 48970), (137, 48985), (144, 48997), (156, 49030),

Gene: ChiliPepper\_34 Start: 26048, Stop: 26380, Start Num: 71  
Candidate Starts for ChiliPepper\_34:  
(Start: 71 @26048 has 61 MA's), (97, 26159), (99, 26171), (101, 26177), (110, 26225), (123, 26282), (131, 26318), (133, 26324),

Gene: Clayda5\_35 Start: 23636, Stop: 23977, Start Num: 71  
Candidate Starts for Clayda5\_35:  
(Start: 71 @23636 has 61 MA's), (94, 23729), (133, 23909),

Gene: CliffHanger\_38 Start: 24541, Stop: 24900, Start Num: 69  
Candidate Starts for CliffHanger\_38:  
(Start: 69 @24541 has 3 MA's), (99, 24670), (127, 24802), (131, 24817), (133, 24823),

Gene: Coltrane\_34 Start: 23649, Stop: 23990, Start Num: 71  
Candidate Starts for Coltrane\_34:  
(Start: 71 @23649 has 61 MA's), (94, 23742), (133, 23922),

Gene: Community\_38 Start: 27474, Stop: 27917, Start Num: 67  
Candidate Starts for Community\_38:  
(Start: 67 @27474 has 73 MA's), (120, 27726), (123, 27735), (133, 27777), (141, 27804), (153, 27840),

Gene: Crewmate\_41 Start: 26389, Stop: 26751, Start Num: 67  
Candidate Starts for Crewmate\_41:

(Start: 67 @26389 has 73 MA's), (100, 26527), (123, 26635), (133, 26677),

Gene: CroZenni\_37 Start: 25508, Stop: 25834, Start Num: 71

Candidate Starts for CroZenni\_37:

(Start: 71 @25508 has 61 MA's), (123, 25739), (131, 25775), (133, 25781),

Gene: CupcakePrincess\_38 Start: 25806, Stop: 26132, Start Num: 71

Candidate Starts for CupcakePrincess\_38:

(Start: 71 @25806 has 61 MA's), (123, 26037), (127, 26058), (131, 26073),

Gene: Cyan\_35 Start: 25187, Stop: 25630, Start Num: 67

Candidate Starts for Cyan\_35:

(Start: 67 @25187 has 73 MA's), (89, 25286), (120, 25439), (133, 25490),

Gene: Dardanus\_52 Start: 35477, Stop: 35866, Start Num: 66

Candidate Starts for Dardanus\_52:

(Start: 66 @35477 has 21 MA's), (70, 35489), (75, 35519), (76, 35522), (122, 35735), (133, 35783),

Gene: Daredevil\_63 Start: 48481, Stop: 48092, Start Num: 66

Candidate Starts for Daredevil\_63:

(Start: 66 @48481 has 21 MA's), (89, 48376), (122, 48208), (128, 48172), (133, 48157), (142, 48133),

Gene: DatBoi\_70 Start: 52480, Stop: 52115, Start Num: 64

Candidate Starts for DatBoi\_70:

(Start: 64 @52480 has 4 MA's), (78, 52426), (96, 52336), (125, 52213), (132, 52183), (152, 52135),

Gene: Diane\_36 Start: 27972, Stop: 28412, Start Num: 49

Candidate Starts for Diane\_36:

(38, 27930), (Start: 49 @27972 has 1 MA's), (52, 27990), (56, 28017), (57, 28026), (59, 28035), (63, 28047), (100, 28209), (122, 28329), (131, 28368),

Gene: DickRichards\_36 Start: 25947, Stop: 26273, Start Num: 71

Candidate Starts for DickRichards\_36:

(Start: 71 @25947 has 61 MA's), (123, 26178), (131, 26214), (133, 26220),

Gene: Didgeridoo\_39 Start: 26093, Stop: 26419, Start Num: 71

Candidate Starts for Didgeridoo\_39:

(Start: 71 @26093 has 61 MA's), (123, 26324), (131, 26360), (133, 26366),

Gene: DirtyBubble\_37 Start: 26477, Stop: 26803, Start Num: 71

Candidate Starts for DirtyBubble\_37:

(1, 25724), (5, 25964), (6, 25982), (9, 26018), (13, 26087), (Start: 71 @26477 has 61 MA's), (99, 26597), (101, 26603), (123, 26708), (127, 26729), (131, 26744), (133, 26750),

Gene: Dismas\_35 Start: 26219, Stop: 26551, Start Num: 71

Candidate Starts for Dismas\_35:

(Start: 71 @26219 has 61 MA's), (97, 26330), (99, 26342), (101, 26348), (110, 26396), (123, 26453), (131, 26489), (133, 26495),

Gene: Donkey\_35 Start: 24069, Stop: 24503, Start Num: 67

Candidate Starts for Donkey\_35:

(42, 23973), (48, 23997), (Start: 67 @24069 has 73 MA's), (Start: 87 @24156 has 1 MA's), (114, 24297), (132, 24369),



Gene: Doobus\_36 Start: 25328, Stop: 25654, Start Num: 71  
Candidate Starts for Doobus\_36:  
(Start: 71 @25328 has 61 MA's), (123, 25559), (131, 25595), (133, 25601),

Gene: DrManhattan\_35 Start: 24117, Stop: 24467, Start Num: 67  
Candidate Starts for DrManhattan\_35:  
(26, 23940), (28, 23964), (34, 23994), (45, 24036), (Start: 67 @24117 has 73 MA's), (89, 24201), (133, 24405), (134, 24411),

Gene: DrSierra\_34 Start: 24046, Stop: 24489, Start Num: 67  
Candidate Starts for DrSierra\_34:  
(21, 23824), (Start: 67 @24046 has 73 MA's), (120, 24298), (123, 24307), (133, 24349), (151, 24406), (165, 24469),

Gene: Dubu\_33 Start: 24220, Stop: 24681, Start Num: 55  
Candidate Starts for Dubu\_33:  
(Start: 55 @24220 has 4 MA's), (103, 24400), (114, 24451), (120, 24475), (121, 24478), (154, 24589),

Gene: Eden\_35 Start: 24432, Stop: 24761, Start Num: 71  
Candidate Starts for Eden\_35:  
(Start: 71 @24432 has 61 MA's), (94, 24525), (99, 24552), (100, 24555), (131, 24699), (133, 24705),

Gene: Elezi\_35 Start: 26877, Stop: 27227, Start Num: 67  
Candidate Starts for Elezi\_35:  
(50, 26808), (Start: 67 @26877 has 73 MA's), (77, 26922), (89, 26961), (100, 27015), (120, 27114), (123, 27123), (133, 27165),

Gene: Elva\_39 Start: 26539, Stop: 26865, Start Num: 71  
Candidate Starts for Elva\_39:  
(Start: 71 @26539 has 61 MA's), (94, 26632), (100, 26662), (127, 26791), (131, 26806), (133, 26812),

Gene: EmiRose\_43 Start: 35914, Stop: 36360, Start Num: 66  
Candidate Starts for EmiRose\_43:  
(Start: 66 @35914 has 21 MA's), (76, 35959), (102, 36082), (117, 36166), (132, 36229), (140, 36256), (159, 36313),

Gene: Emotion\_40 Start: 26793, Stop: 27239, Start Num: 67  
Candidate Starts for Emotion\_40:  
(Start: 67 @26793 has 73 MA's), (133, 27096),

Gene: Eraser\_35 Start: 26868, Stop: 27218, Start Num: 67  
Candidate Starts for Eraser\_35:  
(Start: 67 @26868 has 73 MA's), (77, 26913), (89, 26952), (100, 27006), (120, 27105), (133, 27156),

Gene: Eula\_38 Start: 25719, Stop: 26045, Start Num: 71  
Candidate Starts for Eula\_38:  
(Start: 71 @25719 has 61 MA's), (123, 25950), (127, 25971), (131, 25986),

Gene: Exile\_33 Start: 27350, Stop: 27793, Start Num: 67  
Candidate Starts for Exile\_33:  
(Start: 67 @27350 has 73 MA's), (123, 27611), (133, 27653), (134, 27659), (140, 27677), (145, 27689),

Gene: Finalfrontier\_37 Start: 26331, Stop: 26657, Start Num: 71  
Candidate Starts for Finalfrontier\_37:  
(Start: 71 @26331 has 61 MA's), (123, 26562), (130, 26595), (133, 26604),

Gene: FlameThrower\_35 Start: 26044, Stop: 26373, Start Num: 71  
Candidate Starts for FlameThrower\_35:  
(Start: 71 @26044 has 61 MA's), (99, 26164), (100, 26167), (101, 26170), (131, 26311), (133, 26317),

Gene: Floof\_46 Start: 28537, Stop: 28899, Start Num: 67  
Candidate Starts for Floof\_46:  
(Start: 67 @28537 has 73 MA's), (76, 28582), (104, 28705), (133, 28828),

Gene: Franklin22\_36 Start: 24418, Stop: 24747, Start Num: 71  
Candidate Starts for Franklin22\_36:  
(Start: 71 @24418 has 61 MA's), (92, 24505), (100, 24541), (101, 24544), (130, 24682), (131, 24685),  
(133, 24691),

Gene: GMA4\_60 Start: 40216, Stop: 40572, Start Num: 66  
Candidate Starts for GMA4\_60:  
(39, 40105), (Start: 66 @40216 has 21 MA's), (133, 40510),

Gene: Gack\_34 Start: 24169, Stop: 24498, Start Num: 71  
Candidate Starts for Gack\_34:  
(Start: 71 @24169 has 61 MA's), (100, 24292), (130, 24433), (133, 24442),

Gene: Gambol\_36 Start: 24088, Stop: 24522, Start Num: 67  
Candidate Starts for Gambol\_36:  
(42, 23992), (48, 24016), (Start: 67 @24088 has 73 MA's), (Start: 87 @24175 has 1 MA's), (132,  
24388),

Gene: GardenState\_44 Start: 27681, Stop: 28043, Start Num: 67  
Candidate Starts for GardenState\_44:  
(Start: 67 @27681 has 73 MA's), (104, 27849), (114, 27897), (133, 27972),

Gene: Gretchen\_45 Start: 29159, Stop: 29515, Start Num: 67  
Candidate Starts for Gretchen\_45:  
(Start: 67 @29159 has 73 MA's), (76, 29204), (91, 29261), (133, 29450), (146, 29492),

Gene: Gspu1\_48 Start: 35124, Stop: 35474, Start Num: 70  
Candidate Starts for Gspu1\_48:  
(53, 35067), (65, 35112), (70, 35124), (94, 35241), (128, 35403), (132, 35415), (133, 35418),

Gene: Gustav\_66 Start: 43170, Stop: 43571, Start Num: 66  
Candidate Starts for Gustav\_66:  
(Start: 66 @43170 has 21 MA's), (110, 43383), (133, 43476), (141, 43503), (145, 43512), (155, 43542),  
(158, 43557), (161, 43560),

Gene: Halsey\_35 Start: 24217, Stop: 24651, Start Num: 67  
Candidate Starts for Halsey\_35:  
(42, 24121), (48, 24145), (Start: 67 @24217 has 73 MA's), (132, 24517),

Gene: Honk\_41 Start: 24866, Stop: 25207, Start Num: 67  
Candidate Starts for Honk\_41:

(62, 24857), (Start: 67 @24866 has 73 MA's), (132, 25157),

Gene: IAmGroot\_44 Start: 28148, Stop: 28510, Start Num: 67

Candidate Starts for IAmGroot\_44:

(Start: 67 @28148 has 73 MA's), (104, 28316), (114, 28364), (133, 28439),

Gene: Icarian\_40 Start: 27112, Stop: 27438, Start Num: 71

Candidate Starts for Icarian\_40:

(2, 26479), (5, 26599), (6, 26617), (9, 26653), (13, 26722), (Start: 71 @27112 has 61 MA's), (101, 27238), (109, 27280), (123, 27343), (127, 27364), (131, 27379), (133, 27385),

Gene: IndyLu\_36 Start: 25645, Stop: 25971, Start Num: 71

Candidate Starts for IndyLu\_36:

(Start: 71 @25645 has 61 MA's), (123, 25876), (131, 25912), (133, 25918),

Gene: Iter\_37 Start: 25853, Stop: 26296, Start Num: 67

Candidate Starts for Iter\_37:

(31, 25724), (Start: 67 @25853 has 73 MA's), (77, 25898), (120, 26105), (123, 26114), (133, 26156), (134, 26162),

Gene: IttyBittyPiggy\_36 Start: 25503, Stop: 25862, Start Num: 67

Candidate Starts for IttyBittyPiggy\_36:

(Start: 67 @25503 has 73 MA's), (100, 25641), (133, 25791),

Gene: Jabb\_38 Start: 25806, Stop: 26132, Start Num: 71

Candidate Starts for Jabb\_38:

(Start: 71 @25806 has 61 MA's), (123, 26037), (127, 26058), (131, 26073),

Gene: Janeemi\_38 Start: 27485, Stop: 27928, Start Num: 67

Candidate Starts for Janeemi\_38:

(40, 27377), (41, 27380), (43, 27389), (Start: 67 @27485 has 73 MA's), (120, 27737), (123, 27746), (133, 27788), (141, 27815),

Gene: Jankie\_35 Start: 24505, Stop: 24930, Start Num: 67

Candidate Starts for Jankie\_35:

(Start: 67 @24505 has 73 MA's), (77, 24550), (89, 24604), (132, 24805), (134, 24814),

Gene: JasmineDragon\_40 Start: 26737, Stop: 27180, Start Num: 67

Candidate Starts for JasmineDragon\_40:

(Start: 67 @26737 has 73 MA's), (89, 26836), (133, 27040), (143, 27070),

Gene: Joemato\_35 Start: 25218, Stop: 25661, Start Num: 67

Candidate Starts for Joemato\_35:

(Start: 67 @25218 has 73 MA's), (89, 25317), (120, 25470), (133, 25521),

Gene: JohnDoe\_35 Start: 25209, Stop: 25652, Start Num: 67

Candidate Starts for JohnDoe\_35:

(Start: 67 @25209 has 73 MA's), (120, 25461), (133, 25512),

Gene: Johnathan\_36 Start: 25051, Stop: 25377, Start Num: 71

Candidate Starts for Johnathan\_36:

(Start: 71 @25051 has 61 MA's), (123, 25282), (131, 25318), (133, 25324),

Gene: Jovita\_38 Start: 25821, Stop: 26147, Start Num: 71  
Candidate Starts for Jovita\_38:  
(Start: 71 @25821 has 61 MA's), (123, 26052), (127, 26073), (131, 26088),

Gene: Jstan\_37 Start: 26862, Stop: 27212, Start Num: 67  
Candidate Starts for Jstan\_37:  
(Start: 67 @26862 has 73 MA's), (77, 26907), (89, 26946), (100, 27000), (120, 27099), (133, 27150),

Gene: JuneStar\_37 Start: 27633, Stop: 27992, Start Num: 66  
Candidate Starts for JuneStar\_37:  
(12, 27243), (Start: 66 @27633 has 21 MA's), (89, 27717), (100, 27771), (114, 27846), (133, 27921),

Gene: Kalimba\_35 Start: 24066, Stop: 24500, Start Num: 67  
Candidate Starts for Kalimba\_35:  
(42, 23970), (48, 23994), (Start: 67 @24066 has 73 MA's), (Start: 87 @24153 has 1 MA's), (114, 24294), (132, 24366),

Gene: Kate33\_36 Start: 25417, Stop: 25743, Start Num: 71  
Candidate Starts for Kate33\_36:  
(Start: 71 @25417 has 61 MA's), (123, 25648), (131, 25684), (133, 25690),

Gene: Katzastrophic\_36 Start: 26173, Stop: 26502, Start Num: 71  
Candidate Starts for Katzastrophic\_36:  
(Start: 71 @26173 has 61 MA's), (99, 26293), (100, 26296), (101, 26299), (131, 26440), (133, 26446),

Gene: Kaylissa\_35 Start: 25154, Stop: 25597, Start Num: 67  
Candidate Starts for Kaylissa\_35:  
(Start: 67 @25154 has 73 MA's), (120, 25406), (133, 25457),

Gene: KeAlii\_36 Start: 25807, Stop: 26250, Start Num: 67  
Candidate Starts for KeAlii\_36:  
(24, 25615), (25, 25639), (30, 25669), (40, 25711), (43, 25723), (Start: 67 @25807 has 73 MA's), (89, 25906), (120, 26059), (133, 26110), (134, 26116), (140, 26134), (151, 26167),

Gene: Kenzers\_37 Start: 25644, Stop: 25970, Start Num: 71  
Candidate Starts for Kenzers\_37:  
(Start: 71 @25644 has 61 MA's), (100, 25767), (127, 25896), (131, 25911),

Gene: Kieran\_35 Start: 26228, Stop: 26560, Start Num: 71  
Candidate Starts for Kieran\_35:  
(3, 25631), (7, 25739), (Start: 71 @26228 has 61 MA's), (97, 26339), (99, 26351), (101, 26357), (107, 26393), (110, 26405), (131, 26498), (133, 26504),

Gene: LadyAstra\_43 Start: 26980, Stop: 27411, Start Num: 67  
Candidate Starts for LadyAstra\_43:  
(Start: 67 @26980 has 73 MA's), (120, 27232),

Gene: Lahqtemish\_36 Start: 25690, Stop: 26016, Start Num: 71  
Candidate Starts for Lahqtemish\_36:  
(Start: 71 @25690 has 61 MA's), (123, 25921), (133, 25963),

Gene: Lego\_35 Start: 25100, Stop: 25543, Start Num: 67  
Candidate Starts for Lego\_35:

(40, 25007), (Start: 67 @25100 has 73 MA's), (120, 25352), (133, 25403),

Gene: Liebe\_37 Start: 26991, Stop: 27434, Start Num: 67

Candidate Starts for Liebe\_37:

(Start: 67 @26991 has 73 MA's), (Start: 87 @27078 has 1 MA's), (120, 27243), (123, 27252), (132, 27291), (133, 27294), (134, 27300),

Gene: LimaBean\_36 Start: 25100, Stop: 25426, Start Num: 71

Candidate Starts for LimaBean\_36:

(Start: 71 @25100 has 61 MA's), (123, 25331), (131, 25367), (133, 25373),

Gene: LitninMcQueen\_97 Start: 51856, Stop: 52233, Start Num: 66

Candidate Starts for LitninMcQueen\_97:

(45, 51772), (Start: 66 @51856 has 21 MA's), (70, 51868), (94, 51985), (99, 51997), (103, 52018), (114, 52069), (120, 52093), (132, 52147), (133, 52150), (137, 52165), (144, 52177), (156, 52210),

Gene: Lizalica\_34 Start: 25001, Stop: 25444, Start Num: 67

Candidate Starts for Lizalica\_34:

(21, 24788), (Start: 67 @25001 has 73 MA's), (89, 25100), (120, 25253), (123, 25262), (133, 25304), (134, 25310), (165, 25424),

Gene: London\_35 Start: 26877, Stop: 27227, Start Num: 67

Candidate Starts for London\_35:

(50, 26808), (Start: 67 @26877 has 73 MA's), (77, 26922), (89, 26961), (100, 27015), (120, 27114), (123, 27123), (133, 27165),

Gene: Loviatar\_67 Start: 27664, Stop: 27990, Start Num: 71

Candidate Starts for Loviatar\_67:

(2, 27031), (5, 27151), (6, 27169), (9, 27205), (13, 27274), (Start: 71 @27664 has 61 MA's), (101, 27790), (109, 27832), (123, 27895), (127, 27916), (131, 27931), (133, 27937),

Gene: Lynlen\_37 Start: 25644, Stop: 25970, Start Num: 71

Candidate Starts for Lynlen\_37:

(Start: 71 @25644 has 61 MA's), (100, 25767), (127, 25896), (131, 25911),

Gene: MaGuCo\_35 Start: 25925, Stop: 26281, Start Num: 87

Candidate Starts for MaGuCo\_35:

(Start: 87 @25925 has 1 MA's), (123, 26099), (133, 26141), (134, 26147),

Gene: Mabodamaca\_44 Start: 28805, Stop: 29152, Start Num: 67

Candidate Starts for Mabodamaca\_44:

(Start: 67 @28805 has 73 MA's), (116, 29027), (123, 29054), (133, 29096),

Gene: Mahdia\_59 Start: 41385, Stop: 41786, Start Num: 66

Candidate Starts for Mahdia\_59:

(Start: 66 @41385 has 21 MA's), (80, 41445), (93, 41508), (103, 41562), (110, 41598), (131, 41685), (133, 41691), (141, 41718), (155, 41757), (161, 41775),

Gene: Maureen\_37 Start: 26991, Stop: 27434, Start Num: 67

Candidate Starts for Maureen\_37:

(Start: 67 @26991 has 73 MA's), (Start: 87 @27078 has 1 MA's), (120, 27243), (123, 27252), (132, 27291), (133, 27294), (134, 27300),

Gene: MiniMommy\_42 Start: 26738, Stop: 27181, Start Num: 67  
Candidate Starts for MiniMommy\_42:  
(Start: 67 @26738 has 73 MA's), (89, 26837), (133, 27041), (143, 27071),

Gene: MissSwiss\_35 Start: 24190, Stop: 24540, Start Num: 67  
Candidate Starts for MissSwiss\_35:  
(26, 23998), (28, 24022), (34, 24052), (45, 24094), (Start: 67 @24190 has 73 MA's), (89, 24274), (123, 24436), (133, 24478), (134, 24484),

Gene: Mollymur\_72 Start: 52998, Stop: 52633, Start Num: 64  
Candidate Starts for Mollymur\_72:  
(51, 53064), (56, 53028), (Start: 64 @52998 has 4 MA's), (132, 52701), (133, 52698),

Gene: Morrissey\_62 Start: 43281, Stop: 43685, Start Num: 66  
Candidate Starts for Morrissey\_62:  
(36, 43155), (Start: 66 @43281 has 21 MA's), (79, 43338), (110, 43494), (118, 43524), (131, 43581), (132, 43584), (133, 43587), (141, 43614), (145, 43623), (155, 43653),

Gene: Moss\_35 Start: 24158, Stop: 24592, Start Num: 67  
Candidate Starts for Moss\_35:  
(38, 24050), (42, 24062), (48, 24086), (Start: 67 @24158 has 73 MA's), (132, 24458),

Gene: MsUbiquitous\_38 Start: 25806, Stop: 26132, Start Num: 71  
Candidate Starts for MsUbiquitous\_38:  
(Start: 71 @25806 has 61 MA's), (123, 26037), (127, 26058), (131, 26073),

Gene: Mudpuppy\_34 Start: 24965, Stop: 25408, Start Num: 67  
Candidate Starts for Mudpuppy\_34:  
(21, 24752), (Start: 67 @24965 has 73 MA's), (89, 25064), (120, 25217), (133, 25268),

Gene: Mysterium\_35 Start: 24178, Stop: 24612, Start Num: 67  
Candidate Starts for Mysterium\_35:  
(Start: 67 @24178 has 73 MA's), (132, 24478),

Gene: Nesbitt\_39 Start: 26358, Stop: 26897, Start Num: 55  
Candidate Starts for Nesbitt\_39:  
(37, 26283), (Start: 55 @26358 has 4 MA's), (72, 26427), (86, 26493), (94, 26541), (105, 26601), (110, 26613), (120, 26661), (122, 26667), (126, 26691), (129, 26712), (135, 26736), (148, 26769), (164, 26841), (167, 26877),

Gene: Nicky22\_38 Start: 26183, Stop: 26509, Start Num: 71  
Candidate Starts for Nicky22\_38:  
(Start: 71 @26183 has 61 MA's), (127, 26435), (131, 26450),

Gene: Niobe\_35 Start: 26862, Stop: 27212, Start Num: 67  
Candidate Starts for Niobe\_35:  
(Start: 67 @26862 has 73 MA's), (77, 26907), (89, 26946), (100, 27000), (120, 27099), (133, 27150),

Gene: Nitro\_36 Start: 26582, Stop: 26929, Start Num: 67  
Candidate Starts for Nitro\_36:  
(Start: 67 @26582 has 73 MA's), (77, 26627), (89, 26666), (100, 26720), (123, 26828), (133, 26870),

Gene: ObiToo\_40 Start: 26129, Stop: 26491, Start Num: 67

Candidate Starts for ObiToo\_40:

(Start: 67 @26129 has 73 MA's), (100, 26267), (123, 26375), (133, 26417),

Gene: PastaFagioli\_36 Start: 25674, Stop: 26000, Start Num: 71

Candidate Starts for PastaFagioli\_36:

(Start: 71 @25674 has 61 MA's), (123, 25905), (133, 25947),

Gene: Percival\_46 Start: 28994, Stop: 29350, Start Num: 67

Candidate Starts for Percival\_46:

(Start: 67 @28994 has 73 MA's), (76, 29039), (91, 29096), (133, 29285), (146, 29327),

Gene: PhigPhack\_38 Start: 25544, Stop: 25870, Start Num: 71

Candidate Starts for PhigPhack\_38:

(Start: 71 @25544 has 61 MA's), (97, 25652), (123, 25775), (131, 25811), (133, 25817),

Gene: Phisb\_38 Start: 25777, Stop: 26103, Start Num: 71

Candidate Starts for Phisb\_38:

(Start: 71 @25777 has 61 MA's), (97, 25885), (123, 26008), (131, 26044), (133, 26050),

Gene: Phives\_38 Start: 27302, Stop: 27745, Start Num: 67

Candidate Starts for Phives\_38:

(40, 27194), (41, 27197), (43, 27206), (Start: 67 @27302 has 73 MA's), (120, 27554), (123, 27563), (133, 27605), (141, 27632), (153, 27668),

Gene: Pixelle\_35 Start: 26837, Stop: 27184, Start Num: 67

Candidate Starts for Pixelle\_35:

(Start: 67 @26837 has 73 MA's), (89, 26921), (123, 27083), (133, 27125),

Gene: Powerpuff\_37 Start: 26303, Stop: 26746, Start Num: 67

Candidate Starts for Powerpuff\_37:

(Start: 67 @26303 has 73 MA's), (120, 26555), (133, 26606),

Gene: Pumpkins\_36 Start: 26180, Stop: 26539, Start Num: 66

Candidate Starts for Pumpkins\_36:

(32, 26060), (Start: 66 @26180 has 21 MA's), (100, 26318), (133, 26468),

Gene: Puppies\_60 Start: 41273, Stop: 41683, Start Num: 66

Candidate Starts for Puppies\_60:

(Start: 66 @41273 has 21 MA's), (73, 41294), (98, 41426), (106, 41468), (108, 41477), (131, 41582), (133, 41588),

Gene: QMacho\_39 Start: 26201, Stop: 26527, Start Num: 71

Candidate Starts for QMacho\_39:

(Start: 71 @26201 has 61 MA's), (127, 26453), (131, 26468),

Gene: Quenya\_36 Start: 25890, Stop: 26219, Start Num: 71

Candidate Starts for Quenya\_36:

(8, 25413), (14, 25524), (17, 25566), (Start: 71 @25890 has 61 MA's), (92, 25977), (100, 26013), (101, 26016), (127, 26142), (131, 26157), (133, 26163),

Gene: REQ3\_19 Start: 8920, Stop: 9282, Start Num: 66

Candidate Starts for REQ3\_19:

(Start: 66 @8920 has 21 MA's), (76, 8965), (99, 9061), (101, 9067), (102, 9073), (120, 9157), (133, 9211), (156, 9262), (160, 9274),

Gene: Reedo\_35 Start: 24148, Stop: 24591, Start Num: 67

Candidate Starts for Reedo\_35:

(Start: 67 @24148 has 73 MA's), (77, 24193), (89, 24247), (120, 24400), (123, 24409), (133, 24451), (134, 24457), (141, 24478),

Gene: Rollins\_34 Start: 23702, Stop: 24043, Start Num: 71

Candidate Starts for Rollins\_34:

(Start: 71 @23702 has 61 MA's), (94, 23795), (133, 23975),

Gene: Rona\_35 Start: 26210, Stop: 26542, Start Num: 71

Candidate Starts for Rona\_35:

(3, 25613), (7, 25721), (Start: 71 @26210 has 61 MA's), (97, 26321), (99, 26333), (101, 26339), (110, 26387), (123, 26444), (131, 26480), (133, 26486),

Gene: Samy\_60 Start: 37282, Stop: 37698, Start Num: 60

Candidate Starts for Samy\_60:

(Start: 60 @37282 has 1 MA's), (90, 37390), (95, 37414), (122, 37534), (123, 37537), (124, 37549), (132, 37576), (134, 37585), (141, 37606), (147, 37624),

Gene: SanaSana\_40 Start: 27314, Stop: 27640, Start Num: 71

Candidate Starts for SanaSana\_40:

(Start: 71 @27314 has 61 MA's), (101, 27440), (123, 27545), (127, 27566), (131, 27581), (133, 27587),

Gene: SansAfet\_38 Start: 25631, Stop: 25957, Start Num: 71

Candidate Starts for SansAfet\_38:

(Start: 71 @25631 has 61 MA's), (123, 25862), (131, 25898), (133, 25904),

Gene: SarBear\_37 Start: 25498, Stop: 25824, Start Num: 71

Candidate Starts for SarBear\_37:

(Start: 71 @25498 has 61 MA's), (127, 25750), (131, 25765),

Gene: Schmidt\_51 Start: 34772, Stop: 35146, Start Num: 66

Candidate Starts for Schmidt\_51:

(Start: 66 @34772 has 21 MA's), (70, 34784), (94, 34901), (99, 34928), (101, 34934), (122, 35030), (130, 35072), (136, 35096),

Gene: Shaffner\_37 Start: 26410, Stop: 26769, Start Num: 66

Candidate Starts for Shaffner\_37:

(Start: 66 @26410 has 21 MA's), (89, 26494), (100, 26548), (114, 26623), (133, 26698),

Gene: ShakeltOph\_42 Start: 26737, Stop: 27180, Start Num: 67

Candidate Starts for ShakeltOph\_42:

(Start: 67 @26737 has 73 MA's), (89, 26836), (133, 27040), (143, 27070),

Gene: Sharkboy\_36 Start: 26309, Stop: 26641, Start Num: 71

Candidate Starts for Sharkboy\_36:

(Start: 71 @26309 has 61 MA's), (97, 26420), (99, 26432), (101, 26438), (110, 26486), (123, 26543), (133, 26585),

Gene: Shayna\_37 Start: 24987, Stop: 25346, Start Num: 69



Candidate Starts for Shayna\_37:

(Start: 69 @24987 has 3 MA's), (Start: 84 @25041 has 1 MA's), (99, 25116), (127, 25248), (131, 25263), (133, 25269),

Gene: Simpson\_37 Start: 25218, Stop: 25661, Start Num: 67

Candidate Starts for Simpson\_37:

(Start: 67 @25218 has 73 MA's), (89, 25317), (120, 25470), (133, 25521),

Gene: Skylord\_34 Start: 23633, Stop: 23974, Start Num: 71

Candidate Starts for Skylord\_34:

(Start: 71 @23633 has 61 MA's), (94, 23726), (133, 23906),

Gene: Slay\_38 Start: 26179, Stop: 26505, Start Num: 71

Candidate Starts for Slay\_38:

(Start: 71 @26179 has 61 MA's), (127, 26431), (131, 26446),

Gene: Snek\_35 Start: 24475, Stop: 24915, Start Num: 67

Candidate Starts for Snek\_35:

(26, 24304), (28, 24328), (35, 24358), (47, 24400), (Start: 67 @24475 has 73 MA's), (77, 24520), (120, 24727), (133, 24778), (151, 24835),

Gene: Softsoap\_37 Start: 25542, Stop: 25868, Start Num: 71

Candidate Starts for Softsoap\_37:

(Start: 71 @25542 has 61 MA's), (123, 25773), (133, 25815),

Gene: Soondubu\_33 Start: 27354, Stop: 27797, Start Num: 67

Candidate Starts for Soondubu\_33:

(10, 26925), (27, 27192), (38, 27246), (Start: 67 @27354 has 73 MA's), (123, 27615), (133, 27657), (134, 27663), (140, 27681), (145, 27693),

Gene: Sooty\_35 Start: 24081, Stop: 24515, Start Num: 67

Candidate Starts for Sooty\_35:

(42, 23985), (48, 24009), (Start: 67 @24081 has 73 MA's), (Start: 87 @24168 has 1 MA's), (132, 24381),

Gene: SpecialK\_35 Start: 24066, Stop: 24500, Start Num: 67

Candidate Starts for SpecialK\_35:

(Start: 67 @24066 has 73 MA's), (132, 24366),

Gene: SpeedDemon\_740 Start: 54721, Stop: 54356, Start Num: 64

Candidate Starts for SpeedDemon\_740:

(56, 54751), (Start: 64 @54721 has 4 MA's), (132, 54424), (152, 54376),

Gene: Stoor\_38 Start: 26983, Stop: 27309, Start Num: 71

Candidate Starts for Stoor\_38:

(5, 26470), (6, 26488), (9, 26524), (13, 26593), (Start: 71 @26983 has 61 MA's), (99, 27103), (101, 27109), (109, 27151), (123, 27214), (127, 27235), (131, 27250), (133, 27256),

Gene: Stromboli\_38 Start: 26847, Stop: 27173, Start Num: 71

Candidate Starts for Stromboli\_38:

(1, 26094), (5, 26334), (6, 26352), (9, 26388), (13, 26457), (Start: 71 @26847 has 61 MA's), (99, 26967), (101, 26973), (123, 27078), (127, 27099), (131, 27114), (133, 27120),

Gene: SuMoo\_46 Start: 28468, Stop: 28815, Start Num: 67  
Candidate Starts for SuMoo\_46:  
(44, 28372), (61, 28456), (Start: 67 @28468 has 73 MA's), (116, 28690), (123, 28717), (133, 28759),

Gene: Sue2\_36 Start: 26239, Stop: 26682, Start Num: 67  
Candidate Starts for Sue2\_36:  
(Start: 67 @26239 has 73 MA's), (100, 26392), (127, 26521), (133, 26542), (134, 26548),

Gene: SunnyD\_37 Start: 25043, Stop: 25348, Start Num: 84  
Candidate Starts for SunnyD\_37:  
(Start: 69 @24989 has 3 MA's), (Start: 84 @25043 has 1 MA's), (99, 25118), (110, 25172), (127, 25250), (131, 25265), (133, 25271),

Gene: Swervy\_38 Start: 25698, Stop: 26024, Start Num: 71  
Candidate Starts for Swervy\_38:  
(Start: 71 @25698 has 61 MA's), (127, 25950), (131, 25965),

Gene: Tallboi\_36 Start: 27029, Stop: 27379, Start Num: 67  
Candidate Starts for Tallboi\_36:  
(33, 26903), (Start: 67 @27029 has 73 MA's), (77, 27074), (123, 27275), (133, 27317),

Gene: Tbone\_34 Start: 25013, Stop: 25456, Start Num: 67  
Candidate Starts for Tbone\_34:  
(21, 24791), (Start: 67 @25013 has 73 MA's), (89, 25112), (120, 25265), (133, 25316),

Gene: Teagster\_38 Start: 25820, Stop: 26179, Start Num: 69  
Candidate Starts for Teagster\_38:  
(Start: 69 @25820 has 3 MA's), (Start: 84 @25874 has 1 MA's), (99, 25949), (127, 26081), (131, 26096), (133, 26102),

Gene: TforTroy\_37 Start: 26052, Stop: 26408, Start Num: 66  
Candidate Starts for TforTroy\_37:  
(32, 25932), (Start: 66 @26052 has 21 MA's), (133, 26340),

Gene: Tian\_35 Start: 26817, Stop: 27164, Start Num: 67  
Candidate Starts for Tian\_35:  
(Start: 67 @26817 has 73 MA's), (89, 26901), (123, 27063), (133, 27105),

Gene: TinaLin\_56 Start: 36975, Stop: 37346, Start Num: 68  
Candidate Starts for TinaLin\_56:  
(Start: 66 @36972 has 21 MA's), (Start: 68 @36975 has 1 MA's), (70, 36984), (94, 37101), (122, 37230), (136, 37296),

Gene: TinyDot\_60 Start: 38014, Stop: 38394, Start Num: 66  
Candidate Starts for TinyDot\_60:  
(11, 37603), (18, 37699), (Start: 66 @38014 has 21 MA's), (70, 38026), (81, 38077), (89, 38119), (140, 38338), (141, 38341), (152, 38374),

Gene: Towmatter\_66 Start: 48560, Stop: 48171, Start Num: 66  
Candidate Starts for Towmatter\_66:  
(Start: 66 @48560 has 21 MA's), (89, 48455), (122, 48287), (128, 48251), (133, 48236), (142, 48212),

Gene: Trine\_64 Start: 42629, Stop: 43021, Start Num: 67

Candidate Starts for Trine\_64:

(15, 42272), (16, 42302), (19, 42380), (Start: 67 @42629 has 73 MA's), (102, 42797), (104, 42815), (118, 42872), (131, 42929), (132, 42932), (133, 42935), (141, 42962),

Gene: Tuck\_39 Start: 27855, Stop: 28298, Start Num: 67

Candidate Starts for Tuck\_39:

(Start: 67 @27855 has 73 MA's), (120, 28107), (123, 28116), (133, 28158), (141, 28185), (153, 28221),

Gene: TukTuk\_38 Start: 25769, Stop: 26095, Start Num: 71

Candidate Starts for TukTuk\_38:

(Start: 71 @25769 has 61 MA's), (97, 25877), (123, 26000), (131, 26036), (133, 26042),

Gene: Turab\_34 Start: 25291, Stop: 25641, Start Num: 67

Candidate Starts for Turab\_34:

(26, 25111), (34, 25165), (Start: 67 @25291 has 73 MA's), (77, 25336), (89, 25375), (123, 25537), (133, 25579),

Gene: Tutumahutu\_35 Start: 25185, Stop: 25628, Start Num: 67

Candidate Starts for Tutumahutu\_35:

(Start: 67 @25185 has 73 MA's), (89, 25284), (120, 25437), (133, 25488),

Gene: Tweety19\_35 Start: 24474, Stop: 24914, Start Num: 67

Candidate Starts for Tweety19\_35:

(26, 24303), (28, 24327), (35, 24357), (47, 24399), (Start: 67 @24474 has 73 MA's), (77, 24519), (120, 24726), (133, 24777), (151, 24834),

Gene: Upyo\_68 Start: 44581, Stop: 44982, Start Num: 66

Candidate Starts for Upyo\_68:

(32, 44440), (Start: 66 @44581 has 21 MA's), (103, 44758), (110, 44794), (111, 44797), (131, 44881), (133, 44887), (141, 44914), (145, 44923), (157, 44959), (158, 44968),

Gene: UtzChips\_43 Start: 27442, Stop: 27804, Start Num: 67

Candidate Starts for UtzChips\_43:

(46, 27361), (Start: 67 @27442 has 73 MA's), (114, 27658), (133, 27733),

Gene: VResidence\_36 Start: 25348, Stop: 25791, Start Num: 67

Candidate Starts for VResidence\_36:

(Start: 67 @25348 has 73 MA's), (120, 25600), (123, 25609), (133, 25651), (134, 25657), (143, 25681), (163, 25768),

Gene: Vitas\_34 Start: 23642, Stop: 23983, Start Num: 71

Candidate Starts for Vitas\_34:

(Start: 71 @23642 has 61 MA's), (94, 23735), (133, 23915),

Gene: VroomVroom\_40 Start: 26879, Stop: 27325, Start Num: 67

Candidate Starts for VroomVroom\_40:

(37, 26771), (61, 26867), (Start: 67 @26879 has 73 MA's), (89, 26978), (133, 27182), (162, 27275),

Gene: WalkingDead\_39 Start: 27238, Stop: 27564, Start Num: 71

Candidate Starts for WalkingDead\_39:

(Start: 71 @27238 has 61 MA's), (101, 27364), (109, 27406), (120, 27460), (123, 27469), (127, 27490), (131, 27505), (133, 27511),

Gene: Warda\_35 Start: 25189, Stop: 25632, Start Num: 67

Candidate Starts for Warda\_35:

(21, 24967), (Start: 67 @25189 has 73 MA's), (89, 25288), (120, 25441), (133, 25492),

Gene: Widow\_60 Start: 41819, Stop: 42229, Start Num: 66

Candidate Starts for Widow\_60:

(Start: 66 @41819 has 21 MA's), (98, 41972), (106, 42014), (108, 42023), (131, 42128), (133, 42134),

Gene: Wildwest\_35 Start: 25377, Stop: 25820, Start Num: 67

Candidate Starts for Wildwest\_35:

(26, 25194), (28, 25218), (35, 25248), (Start: 67 @25377 has 73 MA's), (120, 25629), (123, 25638),  
(133, 25680), (134, 25686), (153, 25743), (165, 25800),

Gene: Yang\_36 Start: 25545, Stop: 25904, Start Num: 66

Candidate Starts for Yang\_36:

(Start: 66 @25545 has 21 MA's), (100, 25683), (114, 25758), (133, 25833),

Gene: YesChef\_35 Start: 25162, Stop: 25605, Start Num: 67

Candidate Starts for YesChef\_35:

(Start: 67 @25162 has 73 MA's), (120, 25414), (133, 25465),

Gene: phiSASD1\_10 Start: 25051, Stop: 25515, Start Num: 55

Candidate Starts for phiSASD1\_10:

(Start: 55 @25051 has 4 MA's), (105, 25246), (110, 25258), (120, 25306), (121, 25309), (129, 25351),  
(139, 25384),