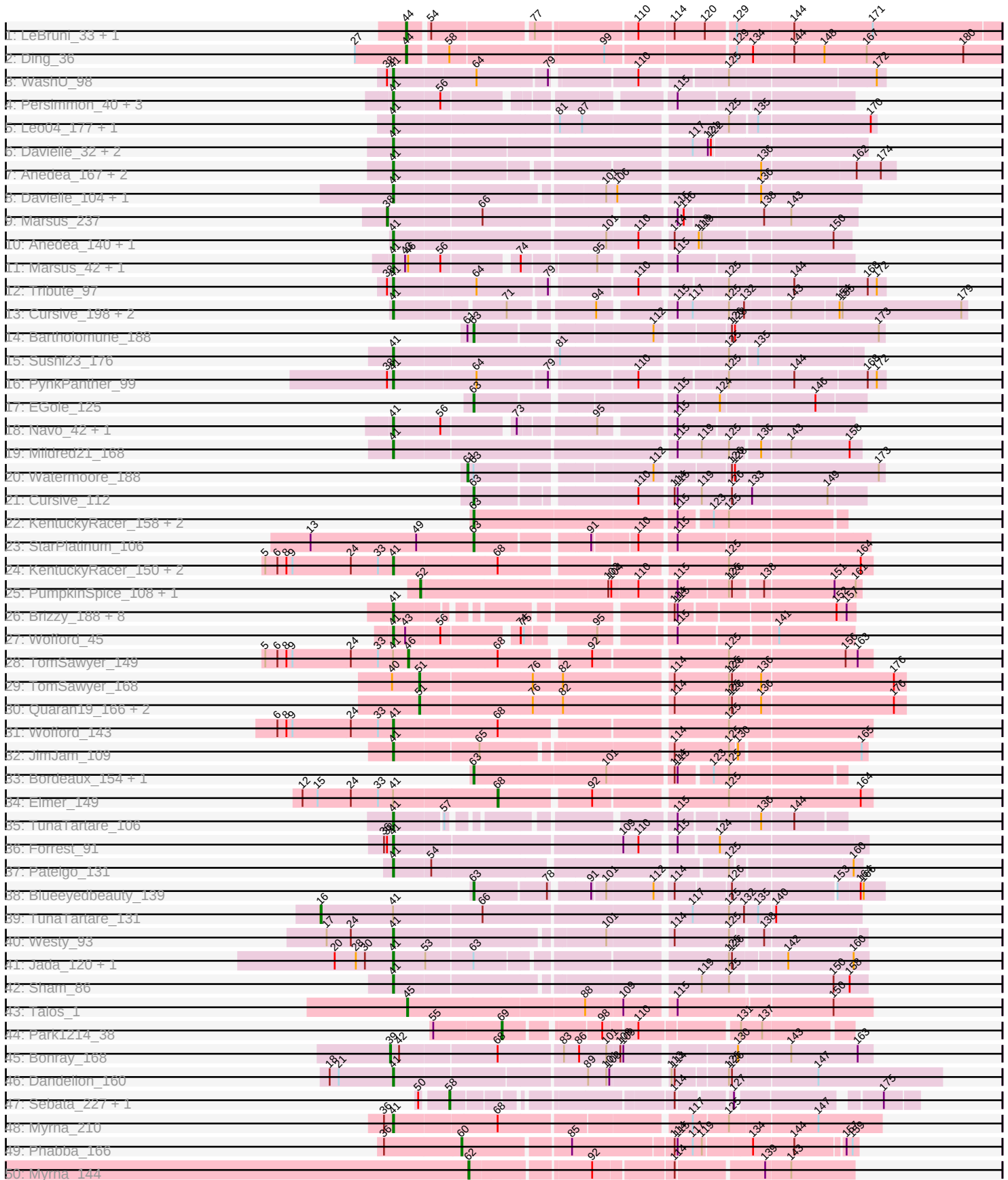
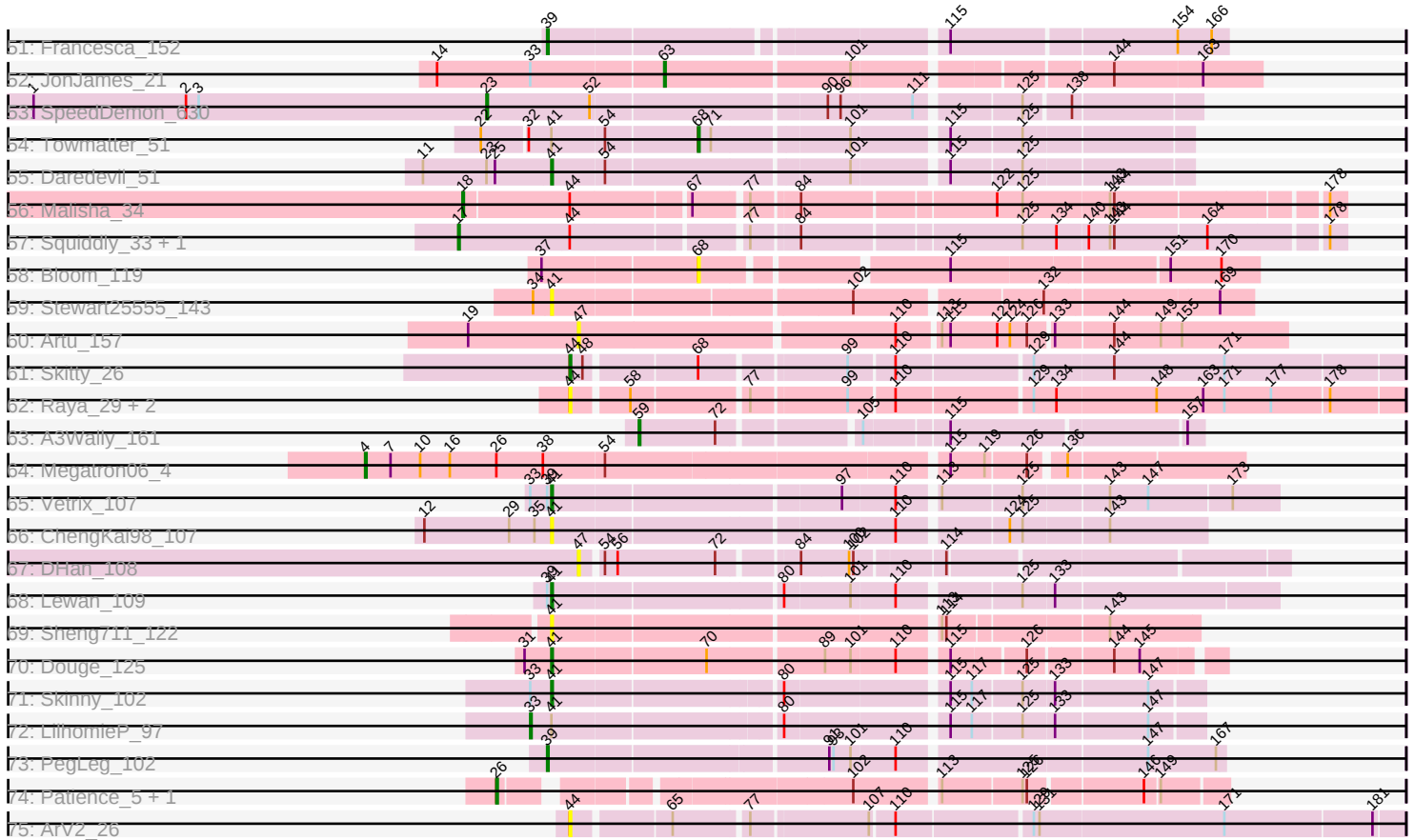


# Pham 330661



Pham 330661



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 330661 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330661 has 112 members, 13 are drafts.

Phages represented in each track:

- Track 1 : LeBruni\_33, Phrank15\_33
- Track 2 : Ding\_36
- Track 3 : WashU\_98
- Track 4 : Persimmon\_40, Davielle\_41, WhereRU\_41, Leo04\_45
- Track 5 : Leo04\_177, Paradiddles\_170
- Track 6 : Davielle\_32, PynkPanther\_33, WhereRU\_32
- Track 7 : Anedea\_167, Riptide\_160, Wofford\_171
- Track 8 : Davielle\_104, WhereRU\_103
- Track 9 : Marsus\_237
- Track 10 : Anedea\_140, Mildred21\_142
- Track 11 : Marsus\_42, Anedea\_42
- Track 12 : Tribute\_97
- Track 13 : Cursive\_198, ArianaSWT\_208, Cadmus\_194
- Track 14 : Bartholomune\_188
- Track 15 : Sushi23\_176
- Track 16 : PynkPanther\_99
- Track 17 : EGole\_125
- Track 18 : Navo\_42, Braelyn\_43
- Track 19 : Mildred21\_168
- Track 20 : Watermoore\_188
- Track 21 : Cursive\_112
- Track 22 : KentuckyRacer\_158, StarPlatinum\_159, MulchMansion\_147
- Track 23 : StarPlatinum\_106
- Track 24 : KentuckyRacer\_150, CeilingFan\_148, JimJam\_152
- Track 25 : PumpkinSpice\_108, Daisy123\_112
- Track 26 : Brizzy\_188, JimJam\_195, KentuckyRacer\_193, IchabodCrane\_184, TomSawyer\_193, Amabiko\_192, Wipeout\_181, Spilled\_194, Mugiware\_190
- Track 27 : Wofford\_45
- Track 28 : TomSawyer\_149
- Track 29 : TomSawyer\_168
- Track 30 : Quarant19\_166, Brizzy\_163, Enygma\_167
- Track 31 : Wofford\_143
- Track 32 : JimJam\_109
- Track 33 : Bordeaux\_154, AcciDwight\_163
- Track 34 : Elmer\_149
- Track 35 : TunaTartare\_106
- Track 36 : Forrest\_91

- Track 37 : Patelgo\_131
- Track 38 : Blueeyedbeauty\_139
- Track 39 : TunaTartare\_131
- Track 40 : Westy\_93
- Track 41 : Jada\_120, Forrest\_124
- Track 42 : Sham\_86
- Track 43 : Talos\_1
- Track 44 : Park1214\_38
- Track 45 : Bonray\_168
- Track 46 : Dandelion\_160
- Track 47 : Sebata\_227, Salacia\_226
- Track 48 : Myrna\_210
- Track 49 : Phabba\_166
- Track 50 : Myrna\_144
- Track 51 : Francesca\_152
- Track 52 : JonJames\_21
- Track 53 : SpeedDemon\_630
- Track 54 : Towmatter\_51
- Track 55 : Daredevil\_51
- Track 56 : Malisha\_34
- Track 57 : Squiddly\_33, Spooky\_31
- Track 58 : Bloom\_119
- Track 59 : Stewart25555\_143
- Track 60 : Artu\_157
- Track 61 : Skitty\_26
- Track 62 : Raya\_29, Skyerus\_29, Neroxid\_29
- Track 63 : A3Wally\_161
- Track 64 : Megatron06\_4
- Track 65 : Vetrix\_107
- Track 66 : ChengKai98\_107
- Track 67 : DHan\_108
- Track 68 : Lewan\_109
- Track 69 : Sheng711\_122
- Track 70 : Douge\_125
- Track 71 : Skinny\_102
- Track 72 : LilhomieP\_97
- Track 73 : PegLeg\_102
- Track 74 : Patience\_5, Labelle\_5
- Track 75 : ArV2\_26

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

The start number called the most often in the published annotations is 41, it was called in 56 of the 99 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Amabiko\_192, Anedea\_140, Anedea\_167, Anedea\_42, ArianaSWT\_208, Braelyn\_43, Brizzy\_188, Cadmus\_194, CeilingFan\_148, ChengKai98\_107, Cursive\_198, Dandelion\_160, Daredevil\_51, Davielle\_104, Davielle\_32, Davielle\_41, Douge\_125, Forrest\_124, Forrest\_91, IchabodCrane\_184, Jada\_120, JimJam\_109,

JimJam\_152, JimJam\_195, KentuckyRacer\_150, KentuckyRacer\_193, Leo04\_177, Leo04\_45, Lewan\_109, Marsus\_42, Mildred21\_142, Mildred21\_168, Mugiwarā\_190, Myrna\_210, Navo\_42, Paradiddles\_170, Patelgo\_131, Persimmon\_40, PynkPanther\_33, PynkPanther\_99, Riptide\_160, Sham\_86, Sheng711\_122, Skinny\_102, Spilled\_194, Stewart25555\_143, Sushi23\_176, TomSawyer\_193, Tribute\_97, TunaTartare\_106, Vetrix\_107, WashU\_98, Westy\_93, WhereRU\_103, WhereRU\_32, WhereRU\_41, Wipeout\_181, Wofford\_143, Wofford\_171, Wofford\_45,

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

- Elmer\_149, LilhomieP\_97, TomSawyer\_149, Towmatter\_51, TunaTartare\_131,

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

- A3Wally\_161, AcciDwight\_163, ArV2\_26, Artu\_157, Bartholomune\_188, Bloom\_119, Blueeyedbeauty\_139, Bonray\_168, Bordeaux\_154, Brizzy\_163, Cursive\_112, DHan\_108, Daisy123\_112, Ding\_36, EGole\_125, Enygma\_167, Francesca\_152, JonJames\_21, KentuckyRacer\_158, Labelle\_5, LeBruni\_33, Malisha\_34, Marsus\_237, Megatron06\_4, MulchMansion\_147, Myrna\_144, Neroxid\_29, Park1214\_38, Patience\_5, PegLeg\_102, Phabba\_166, Phrank15\_33, PumpkinSpice\_108, Quarant19\_166, Raya\_29, Salacia\_226, Sebata\_227, Skitty\_26, Skyerus\_29, SpeedDemon\_630, Spooky\_31, Squiddly\_33, StarPlatinum\_106, StarPlatinum\_159, Talos\_1, TomSawyer\_168, Watermoore\_188,

### Summary by start number:

Start 4:

- Found in 1 of 112 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megatron06\_4 (H1),

Start 16:

- Found in 2 of 112 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 50.0% of time when present
- Phage (with cluster) where this start called: TunaTartare\_131 (BK1),

Start 17:

- Found in 3 of 112 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 2 of 99
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Spooky\_31 (DN2), Squiddly\_33 (DN2),

Start 18:

- Found in 2 of 112 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Malisha\_34 (DN),

Start 23:

- Found in 2 of 112 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 50.0% of time when present
- Phage (with cluster) where this start called: SpeedDemon\_630 (DL),

Start 26:

- Found in 3 of 112 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 2 of 99
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Labelle\_5 (U), Patience\_5 (U),

Start 33:

- Found in 10 of 112 ( 8.9% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 10.0% of time when present
- Phage (with cluster) where this start called: LilhomieP\_97 (M1),

Start 38:

- Found in 6 of 112 ( 5.4% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Marsus\_237 (BE1),

Start 39:

- Found in 5 of 112 ( 4.5% ) of genes in pham
- Manual Annotations of this start: 3 of 99
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Bonray\_168 (C1), Francesca\_152 (CG), PegLeg\_102 (M1),

Start 41:

- Found in 65 of 112 ( 58.0% ) of genes in pham
- Manual Annotations of this start: 56 of 99
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Amabiko\_192 (BE2), Anedea\_140 (BE1), Anedea\_167 (BE1), Anedea\_42 (BE1), ArianaSWT\_208 (BE1), Braelyn\_43 (BE1), Brizzy\_188 (BE2), Cadmus\_194 (BE1), CeilingFan\_148 (BE2), ChengKai98\_107 (L2), Cursive\_198 (BE1), Dandelion\_160 (C1), Daredevil\_51 (DL), Davielle\_104 (BE1), Davielle\_32 (BE1), Davielle\_41 (BE1), Douge\_125 (L4), Forrest\_124 (BK1), Forrest\_91 (BK1), IchabodCrane\_184 (BE2), Jada\_120 (BK1), JimJam\_109 (BE2), JimJam\_152 (BE2), JimJam\_195 (BE2), KentuckyRacer\_150 (BE2), KentuckyRacer\_193 (BE2), Leo04\_177 (BE1), Leo04\_45 (BE1), Lewan\_109 (L2), Marsus\_42 (BE1), Mildred21\_142 (BE1), Mildred21\_168 (BE1), Mugiwarra\_190 (BE2), Myrna\_210 (C2), Navo\_42 (BE1), Paradiddles\_170 (BE1), Patelgo\_131 (BK1), Persimmon\_40 (BE1), PynkPanther\_33 (BE1), PynkPanther\_99 (BE1), Riptide\_160 (BE1), Sham\_86 (BK1), Sheng711\_122 (L4), Skinny\_102 (M1), Spilled\_194 (BE2), Stewart25555\_143 (FC), Sushi23\_176 (BE1), TomSawyer\_193 (BE2), Tribute\_97 (BE1), TunaTartare\_106 (BK1), Vetrrix\_107 (L2), WashU\_98 (BE1), Westy\_93 (BK1), WhereRU\_103 (BE1), WhereRU\_32 (BE1), WhereRU\_41 (BE1), Wipeout\_181 (BE2), Wofford\_143 (BE2), Wofford\_171 (BE2), Wofford\_45 (BE2),

Start 44:

- Found in 11 of 112 ( 9.8% ) of genes in pham
- Manual Annotations of this start: 4 of 99
- Called 72.7% of time when present
- Phage (with cluster) where this start called: ArV2\_26 (singleton), Ding\_36 (AY), LeBruni\_33 (AY), Neroxid\_29 (FQ2), Phrank15\_33 (AY), Raya\_29 (FQ2), Skitty\_26

(FQ1), Skyerus\_29 (FQ2),

Start 45:

- Found in 1 of 112 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Talos\_1 (BS),

Start 46:

- Found in 3 of 112 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 33.3% of time when present
- Phage (with cluster) where this start called: TomSawyer\_149 (BE2),

Start 47:

- Found in 2 of 112 ( 1.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artu\_157 (FC), DHan\_108 (L2),

Start 51:

- Found in 4 of 112 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 4 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Brizzy\_163 (BE2), Enygma\_167 (BE2), Quarant\_166 (BE2), TomSawyer\_168 (BE2),

Start 52:

- Found in 3 of 112 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Daisy123\_112 (BE2), PumpkinSpice\_108 (BE2),

Start 58:

- Found in 6 of 112 ( 5.4% ) of genes in pham
- Manual Annotations of this start: 2 of 99
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Salacia\_226 (C1), Sebata\_227 (C1),

Start 59:

- Found in 1 of 112 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_161 (GD1),

Start 60:

- Found in 1 of 112 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phabba\_166 (C2),

Start 61:

- Found in 2 of 112 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Watermoore\_188 (BE1),

Start 62:

- Found in 1 of 112 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Myrna\_144 (C2),

Start 63:

- Found in 14 of 112 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 10 of 99
- Called 78.6% of time when present
- Phage (with cluster) where this start called: AcciDwight\_163 (BE2), Bartholomune\_188 (BE1), Blueeyedbeauty\_139 (BK1), Bordeaux\_154 (BE2), Cursive\_112 (BE1), EGole\_125 (BE1), JonJames\_21 (DD), KentuckyRacer\_158 (BE2), MulchMansion\_147 (BE1), StarPlatinum\_106 (BE2), StarPlatinum\_159 (BE2),

Start 68:

- Found in 11 of 112 ( 9.8% ) of genes in pham
- Manual Annotations of this start: 2 of 99
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Bloom\_119 (FC), Elmer\_149 (BE2), Towmatter\_51 (DL),

Start 69:

- Found in 1 of 112 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 99
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Park1214\_38 (BS),

### Summary by clusters:

There are 22 clusters represented in this pham: DN, GD1, DL, DD, singleton, FC, M1, BS, DN2, C2, C1, CG, BE2, L4, L2, BK1, AY, BE1, H1, FQ2, U, FQ1,

Info for manual annotations of cluster AY:

- Start number 44 was manually annotated 3 times for cluster AY.

Info for manual annotations of cluster BE1:

- Start number 38 was manually annotated 1 time for cluster BE1.
- Start number 41 was manually annotated 26 times for cluster BE1.
- Start number 61 was manually annotated 1 time for cluster BE1.
- Start number 63 was manually annotated 4 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 41 was manually annotated 16 times for cluster BE2.
- Start number 46 was manually annotated 1 time for cluster BE2.
- Start number 51 was manually annotated 4 times for cluster BE2.
- Start number 52 was manually annotated 1 time for cluster BE2.
- Start number 63 was manually annotated 4 times for cluster BE2.

- Start number 68 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 16 was manually annotated 1 time for cluster BK1.
- Start number 41 was manually annotated 7 times for cluster BK1.
- Start number 63 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BS:

- Start number 45 was manually annotated 1 time for cluster BS.
- Start number 69 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster C1:

- Start number 39 was manually annotated 1 time for cluster C1.
- Start number 41 was manually annotated 1 time for cluster C1.
- Start number 58 was manually annotated 2 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 41 was manually annotated 1 time for cluster C2.
- Start number 60 was manually annotated 1 time for cluster C2.
- Start number 62 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CG:

- Start number 39 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster DD:

- Start number 63 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DL:

- Start number 23 was manually annotated 1 time for cluster DL.
- Start number 41 was manually annotated 1 time for cluster DL.
- Start number 68 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DN:

- Start number 18 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN2:

- Start number 17 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster FQ1:

- Start number 44 was manually annotated 1 time for cluster FQ1.

Info for manual annotations of cluster GD1:

- Start number 59 was manually annotated 1 time for cluster GD1.

Info for manual annotations of cluster H1:

- Start number 4 was manually annotated 1 time for cluster H1.

Info for manual annotations of cluster L2:

- Start number 41 was manually annotated 2 times for cluster L2.

Info for manual annotations of cluster L4:

- Start number 41 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster M1:

- Start number 33 was manually annotated 1 time for cluster M1.
- Start number 39 was manually annotated 1 time for cluster M1.
- Start number 41 was manually annotated 1 time for cluster M1.

Info for manual annotations of cluster U:

- Start number 26 was manually annotated 2 times for cluster U.

### **Gene Information:**

Gene: A3Wally\_161 Start: 93240, Stop: 93602, Start Num: 59

Candidate Starts for A3Wally\_161:

(Start: 59 @93240 has 1 MA's), (72, 93294), (105, 93381), (115, 93435), (157, 93591),

Gene: AcciDwight\_163 Start: 88123, Stop: 88467, Start Num: 63

Candidate Starts for AcciDwight\_163:

(Start: 63 @88123 has 10 MA's), (101, 88252), (114, 88312), (115, 88315), (123, 88345), (125, 88360),

Gene: Amabiko\_192 Start: 96212, Stop: 96601, Start Num: 41

Candidate Starts for Amabiko\_192:

(Start: 41 @96212 has 56 MA's), (114, 96437), (115, 96440), (152, 96584), (157, 96593),

Gene: Anedea\_167 Start: 92344, Stop: 92802, Start Num: 41

Candidate Starts for Anedea\_167:

(Start: 41 @92344 has 56 MA's), (136, 92674), (162, 92764), (174, 92788),

Gene: Anedea\_140 Start: 84644, Stop: 85069, Start Num: 41

Candidate Starts for Anedea\_140:

(Start: 41 @84644 has 56 MA's), (101, 84845), (110, 84875), (114, 84902), (118, 84926), (119, 84929), (150, 85052),

Gene: Anedea\_42 Start: 21646, Stop: 22047, Start Num: 41

Candidate Starts for Anedea\_42:

(Start: 41 @21646 has 56 MA's), (43, 21658), (Start: 46 @21661 has 1 MA's), (56, 21691), (74, 21757), (95, 21820), (115, 21883),

Gene: ArV2\_26 Start: 20690, Stop: 21238, Start Num: 44

Candidate Starts for ArV2\_26:

(Start: 44 @20690 has 4 MA's), (65, 20753), (77, 20801), (107, 20879), (110, 20894), (129, 20984), (131, 20987), (171, 21116), (181, 21218),

Gene: ArianaSWT\_208 Start: 104549, Stop: 105070, Start Num: 41

Candidate Starts for ArianaSWT\_208:

(Start: 41 @104549 has 56 MA's), (71, 104651), (94, 104726), (115, 104792), (117, 104807), (125, 104843), (132, 104858), (143, 104900), (154, 104945), (155, 104948), (179, 105065),

Gene: Artu\_157 Start: 108175, Stop: 108654, Start Num: 47

Candidate Starts for Artu\_157:

(19, 108097), (47, 108175), (110, 108391), (113, 108418), (115, 108424), (122, 108457), (124, 108466), (126, 108478), (133, 108493), (144, 108532), (149, 108565), (155, 108580),

Gene: Bartholomune\_188 Start: 98185, Stop: 98556, Start Num: 63

Candidate Starts for Bartholomune\_188:

(Start: 61 @98179 has 1 MA's), (Start: 63 @98185 has 10 MA's), (112, 98344), (126, 98410), (128, 98413), (173, 98551),

Gene: Bloom\_119 Start: 91780, Stop: 92142, Start Num: 68

Candidate Starts for Bloom\_119:

(37, 91675), (Start: 68 @91780 has 2 MA's), (115, 91936), (151, 92080), (170, 92116),

Gene: Blueeyedbeauty\_139 Start: 79396, Stop: 79761, Start Num: 63

Candidate Starts for Blueeyedbeauty\_139:

(Start: 63 @79396 has 10 MA's), (78, 79465), (91, 79498), (101, 79510), (112, 79555), (114, 79570), (126, 79621), (153, 79717), (164, 79738), (166, 79741),

Gene: Bonray\_168 Start: 94840, Stop: 95289, Start Num: 39

Candidate Starts for Bonray\_168:

(Start: 39 @94840 has 3 MA's), (42, 94849), (Start: 68 @94942 has 2 MA's), (83, 95002), (86, 95017), (101, 95044), (108, 95056), (109, 95059), (130, 95161), (143, 95209), (163, 95275),

Gene: Bordeaux\_154 Start: 87839, Stop: 88183, Start Num: 63

Candidate Starts for Bordeaux\_154:

(Start: 63 @87839 has 10 MA's), (101, 87968), (114, 88028), (115, 88031), (123, 88061), (125, 88076),

Gene: Braelyn\_43 Start: 22198, Stop: 22599, Start Num: 41

Candidate Starts for Braelyn\_43:

(Start: 41 @22198 has 56 MA's), (56, 22243), (73, 22306), (95, 22372), (115, 22435),

Gene: Brizzy\_188 Start: 96656, Stop: 97045, Start Num: 41

Candidate Starts for Brizzy\_188:

(Start: 41 @96656 has 56 MA's), (114, 96881), (115, 96884), (152, 97028), (157, 97037),

Gene: Brizzy\_163 Start: 90852, Stop: 91316, Start Num: 51

Candidate Starts for Brizzy\_163:

(Start: 51 @90852 has 4 MA's), (76, 90960), (82, 90990), (114, 91092), (125, 91146), (126, 91149), (136, 91176), (176, 91305),

Gene: Cadmus\_194 Start: 103833, Stop: 104354, Start Num: 41

Candidate Starts for Cadmus\_194:

(Start: 41 @103833 has 56 MA's), (71, 103935), (94, 104010), (115, 104076), (117, 104091), (125, 104127), (132, 104142), (143, 104184), (154, 104229), (155, 104232), (179, 104349),

Gene: CeilingFan\_148 Start: 86515, Stop: 86958, Start Num: 41

Candidate Starts for CeilingFan\_148:

(5, 86389), (6, 86401), (8, 86410), (9, 86416), (24, 86473), (Start: 33 @86500 has 1 MA's), (Start: 41 @86515 has 56 MA's), (Start: 68 @86614 has 2 MA's), (125, 86821), (164, 86947),

Gene: ChengKai98\_107 Start: 62830, Stop: 63261, Start Num: 41

Candidate Starts for ChengKai98\_107:

(12, 62740), (29, 62800), (35, 62818), (Start: 41 @62830 has 56 MA's), (110, 63058), (124, 63127), (125, 63136), (143, 63193),

Gene: Cursive\_198 Start: 103181, Stop: 103702, Start Num: 41

Candidate Starts for Cursive\_198:

(Start: 41 @103181 has 56 MA's), (71, 103283), (94, 103358), (115, 103424), (117, 103439), (125, 103475), (132, 103490), (143, 103532), (154, 103577), (155, 103580), (179, 103697),

Gene: Cursive\_112 Start: 77217, Stop: 77573, Start Num: 63

Candidate Starts for Cursive\_112:

(Start: 63 @77217 has 10 MA's), (110, 77361), (114, 77391), (115, 77394), (119, 77418), (126, 77448), (133, 77466), (149, 77538),

Gene: DHan\_108 Start: 63363, Stop: 63818, Start Num: 47

Candidate Starts for DHan\_108:

(47, 63363), (54, 63375), (56, 63384), (72, 63453), (84, 63501), (100, 63534), (102, 63537), (114, 63594),

Gene: Daisy123\_112 Start: 73536, Stop: 73943, Start Num: 52

Candidate Starts for Daisy123\_112:

(Start: 52 @73536 has 1 MA's), (102, 73713), (104, 73716), (110, 73740), (115, 73773), (125, 73821), (126, 73824), (138, 73851), (151, 73917), (161, 73938),

Gene: Dandelion\_160 Start: 94845, Stop: 95354, Start Num: 41

Candidate Starts for Dandelion\_160:

(Start: 18 @94782 has 1 MA's), (21, 94791), (Start: 41 @94845 has 56 MA's), (89, 95025), (101, 95043), (103, 95046), (113, 95097), (114, 95100), (125, 95148), (126, 95151), (147, 95232),

Gene: Daredevil\_51 Start: 40951, Stop: 41370, Start Num: 41

Candidate Starts for Daredevil\_51:

(11, 40861), (Start: 23 @40906 has 1 MA's), (25, 40912), (Start: 41 @40951 has 56 MA's), (54, 40987), (101, 41149), (115, 41209), (125, 41257),

Gene: Davielle\_32 Start: 14821, Stop: 14384, Start Num: 41

Candidate Starts for Davielle\_32:

(Start: 41 @14821 has 56 MA's), (117, 14548), (121, 14533), (122, 14530),

Gene: Davielle\_104 Start: 73218, Stop: 73643, Start Num: 41

Candidate Starts for Davielle\_104:

(Start: 41 @73218 has 56 MA's), (101, 73410), (106, 73419), (136, 73548),

Gene: Davielle\_41 Start: 21615, Stop: 22016, Start Num: 41

Candidate Starts for Davielle\_41:

(Start: 41 @21615 has 56 MA's), (56, 21660), (115, 21852),

Gene: Ding\_36 Start: 25387, Stop: 25947, Start Num: 44

Candidate Starts for Ding\_36:

(27, 25336), (Start: 44 @25387 has 4 MA's), (Start: 58 @25423 has 2 MA's), (99, 25567), (129, 25687), (134, 25702), (144, 25741), (148, 25771), (167, 25813), (180, 25909),

Gene: Douge\_125 Start: 66042, Stop: 66473, Start Num: 41

Candidate Starts for Douge\_125:

(31, 66024), (Start: 41 @66042 has 56 MA's), (70, 66147), (89, 66225), (101, 66243), (110, 66273), (115, 66303), (126, 66351), (144, 66405), (145, 66423),

Gene: EGole\_125 Start: 82153, Stop: 82503, Start Num: 63  
Candidate Starts for EGole\_125:  
(Start: 63 @82153 has 10 MA's), (115, 82330), (124, 82369), (146, 82456),

Gene: Elmer\_149 Start: 88649, Stop: 88993, Start Num: 68  
Candidate Starts for Elmer\_149:  
(12, 88460), (15, 88475), (24, 88508), (Start: 33 @88535 has 1 MA's), (Start: 41 @88550 has 56 MA's),  
(Start: 68 @88649 has 2 MA's), (92, 88733), (125, 88856), (164, 88982),

Gene: Enygma\_167 Start: 93249, Stop: 93713, Start Num: 51  
Candidate Starts for Enygma\_167:  
(Start: 51 @93249 has 4 MA's), (76, 93357), (82, 93387), (114, 93489), (125, 93543), (126, 93546),  
(136, 93573), (176, 93702),

Gene: Forrest\_91 Start: 63801, Stop: 64238, Start Num: 41  
Candidate Starts for Forrest\_91:  
(36, 63792), (Start: 38 @63795 has 1 MA's), (Start: 41 @63801 has 56 MA's), (109, 64017), (110,  
64032), (115, 64062), (124, 64098),

Gene: Forrest\_124 Start: 77019, Stop: 77447, Start Num: 41  
Candidate Starts for Forrest\_124:  
(20, 76962), (28, 76983), (30, 76992), (Start: 41 @77019 has 56 MA's), (53, 77049), (Start: 63 @77094  
has 10 MA's), (125, 77319), (126, 77322), (142, 77370), (160, 77433),

Gene: Francesca\_152 Start: 89986, Stop: 90429, Start Num: 39  
Candidate Starts for Francesca\_152:  
(Start: 39 @89986 has 3 MA's), (115, 90241), (154, 90394), (166, 90418),

Gene: IchabodCrane\_184 Start: 95913, Stop: 96302, Start Num: 41  
Candidate Starts for IchabodCrane\_184:  
(Start: 41 @95913 has 56 MA's), (114, 96138), (115, 96141), (152, 96285), (157, 96294),

Gene: Jada\_120 Start: 75949, Stop: 76377, Start Num: 41  
Candidate Starts for Jada\_120:  
(20, 75892), (28, 75913), (30, 75922), (Start: 41 @75949 has 56 MA's), (53, 75979), (Start: 63 @76024  
has 10 MA's), (125, 76249), (126, 76252), (142, 76300), (160, 76363),

Gene: JimJam\_195 Start: 97834, Stop: 98223, Start Num: 41  
Candidate Starts for JimJam\_195:  
(Start: 41 @97834 has 56 MA's), (114, 98059), (115, 98062), (152, 98206), (157, 98215),

Gene: JimJam\_152 Start: 87443, Stop: 87886, Start Num: 41  
Candidate Starts for JimJam\_152:  
(5, 87317), (6, 87329), (8, 87338), (9, 87344), (24, 87401), (Start: 33 @87428 has 1 MA's), (Start: 41  
@87443 has 56 MA's), (Start: 68 @87542 has 2 MA's), (125, 87749), (164, 87875),

Gene: JimJam\_109 Start: 73736, Stop: 74164, Start Num: 41  
Candidate Starts for JimJam\_109:  
(Start: 41 @73736 has 56 MA's), (65, 73817), (114, 73985), (125, 74039), (130, 74045), (165, 74159),

Gene: JonJames\_21 Start: 7188, Stop: 7577, Start Num: 63  
Candidate Starts for JonJames\_21:

(14, 7032), (Start: 33 @7098 has 1 MA's), (Start: 63 @7188 has 10 MA's), (101, 7314), (144, 7476), (163, 7536),

Gene: KentuckyRacer\_158 Start: 88711, Stop: 89055, Start Num: 63

Candidate Starts for KentuckyRacer\_158:

(Start: 63 @88711 has 10 MA's), (115, 88903), (123, 88933), (125, 88948),

Gene: KentuckyRacer\_150 Start: 87011, Stop: 87454, Start Num: 41

Candidate Starts for KentuckyRacer\_150:

(5, 86885), (6, 86897), (8, 86906), (9, 86912), (24, 86969), (Start: 33 @86996 has 1 MA's), (Start: 41 @87011 has 56 MA's), (Start: 68 @87110 has 2 MA's), (125, 87317), (164, 87443),

Gene: KentuckyRacer\_193 Start: 97580, Stop: 97969, Start Num: 41

Candidate Starts for KentuckyRacer\_193:

(Start: 41 @97580 has 56 MA's), (114, 97805), (115, 97808), (152, 97952), (157, 97961),

Gene: Labelle\_5 Start: 2590, Stop: 3042, Start Num: 26

Candidate Starts for Labelle\_5:

(Start: 26 @2590 has 2 MA's), (102, 2803), (113, 2857), (125, 2911), (126, 2914), (146, 2989), (149, 2998),

Gene: LeBruni\_33 Start: 24490, Stop: 25041, Start Num: 44

Candidate Starts for LeBruni\_33:

(Start: 44 @24490 has 4 MA's), (54, 24508), (77, 24601), (110, 24694), (114, 24727), (120, 24757), (129, 24784), (144, 24838), (171, 24916),

Gene: Leo04\_177 Start: 96224, Stop: 96667, Start Num: 41

Candidate Starts for Leo04\_177:

(Start: 41 @96224 has 56 MA's), (81, 96377), (87, 96398), (125, 96530), (135, 96554), (170, 96662),

Gene: Leo04\_45 Start: 23281, Stop: 23682, Start Num: 41

Candidate Starts for Leo04\_45:

(Start: 41 @23281 has 56 MA's), (56, 23326), (115, 23518),

Gene: Lewan\_109 Start: 63302, Stop: 63781, Start Num: 41

Candidate Starts for Lewan\_109:

(Start: 39 @63299 has 3 MA's), (Start: 41 @63302 has 56 MA's), (80, 63455), (101, 63500), (110, 63530), (125, 63608), (133, 63629),

Gene: LilhomieP\_97 Start: 57511, Stop: 57948, Start Num: 33

Candidate Starts for LilhomieP\_97:

(Start: 33 @57511 has 1 MA's), (Start: 41 @57526 has 56 MA's), (80, 57676), (115, 57781), (117, 57796), (125, 57829), (133, 57850), (147, 57913),

Gene: Malisha\_34 Start: 26678, Stop: 27247, Start Num: 18

Candidate Starts for Malisha\_34:

(Start: 18 @26678 has 1 MA's), (Start: 44 @26750 has 4 MA's), (67, 26828), (77, 26861), (84, 26891), (122, 27020), (125, 27038), (143, 27098), (144, 27101), (178, 27236),

Gene: Marsus\_237 Start: 116691, Stop: 117125, Start Num: 38

Candidate Starts for Marsus\_237:

(Start: 38 @116691 has 1 MA's), (66, 116781), (115, 116952), (116, 116958), (138, 117033), (143, 117060),

Gene: Marsus\_42 Start: 21346, Stop: 21747, Start Num: 41

Candidate Starts for Marsus\_42:

(Start: 41 @21346 has 56 MA's), (43, 21358), (Start: 46 @21361 has 1 MA's), (56, 21391), (74, 21457), (95, 21520), (115, 21583),

Gene: Megatron06\_4 Start: 2094, Stop: 2681, Start Num: 4

Candidate Starts for Megatron06\_4:

(Start: 4 @2094 has 1 MA's), (7, 2112), (10, 2133), (Start: 16 @2154 has 1 MA's), (Start: 26 @2187 has 2 MA's), (Start: 38 @2220 has 1 MA's), (54, 2262), (115, 2490), (119, 2514), (126, 2541), (136, 2562),

Gene: Mildred21\_168 Start: 90931, Stop: 91365, Start Num: 41

Candidate Starts for Mildred21\_168:

(Start: 41 @90931 has 56 MA's), (115, 91192), (119, 91216), (125, 91243), (136, 91270), (143, 91297), (158, 91354),

Gene: Mildred21\_142 Start: 85401, Stop: 85826, Start Num: 41

Candidate Starts for Mildred21\_142:

(Start: 41 @85401 has 56 MA's), (101, 85602), (110, 85632), (114, 85659), (118, 85683), (119, 85686), (150, 85809),

Gene: Mugiwara\_190 Start: 97213, Stop: 97602, Start Num: 41

Candidate Starts for Mugiwara\_190:

(Start: 41 @97213 has 56 MA's), (114, 97438), (115, 97441), (152, 97585), (157, 97594),

Gene: MulchMansion\_147 Start: 87054, Stop: 87398, Start Num: 63

Candidate Starts for MulchMansion\_147:

(Start: 63 @87054 has 10 MA's), (115, 87246), (123, 87276), (125, 87291),

Gene: Myrna\_210 Start: 122711, Stop: 123163, Start Num: 41

Candidate Starts for Myrna\_210:

(36, 122702), (Start: 41 @122711 has 56 MA's), (Start: 68 @122810 has 2 MA's), (117, 122984), (125, 123017), (147, 123101),

Gene: Myrna\_144 Start: 92033, Stop: 92380, Start Num: 62

Candidate Starts for Myrna\_144:

(Start: 62 @92033 has 1 MA's), (92, 92141), (114, 92213), (139, 92294), (143, 92318),

Gene: Navo\_42 Start: 22093, Stop: 22494, Start Num: 41

Candidate Starts for Navo\_42:

(Start: 41 @22093 has 56 MA's), (56, 22138), (73, 22201), (95, 22267), (115, 22330),

Gene: Neroxid\_29 Start: 21456, Stop: 22004, Start Num: 44

Candidate Starts for Neroxid\_29:

(Start: 44 @21456 has 4 MA's), (Start: 58 @21492 has 2 MA's), (77, 21567), (99, 21630), (110, 21660), (129, 21750), (134, 21765), (148, 21834), (163, 21867), (171, 21882), (177, 21915), (178, 21954),

Gene: Paradiddles\_170 Start: 96596, Stop: 97039, Start Num: 41

Candidate Starts for Paradiddles\_170:

(Start: 41 @96596 has 56 MA's), (81, 96749), (87, 96770), (125, 96902), (135, 96926), (170, 97034),

Gene: Park1214\_38 Start: 12803, Stop: 13108, Start Num: 69

Candidate Starts for Park1214\_38:

(55, 12737), (Start: 69 @12803 has 1 MA's), (98, 12884), (110, 12914), (131, 13004), (137, 13025),

Gene: Patelgo\_131 Start: 78593, Stop: 79012, Start Num: 41

Candidate Starts for Patelgo\_131:

(Start: 41 @78593 has 56 MA's), (54, 78629), (125, 78893), (160, 79004),

Gene: Patience\_5 Start: 2590, Stop: 3042, Start Num: 26

Candidate Starts for Patience\_5:

(Start: 26 @2590 has 2 MA's), (102, 2803), (113, 2857), (125, 2911), (126, 2914), (146, 2989), (149, 2998),

Gene: PegLeg\_102 Start: 57809, Stop: 58258, Start Num: 39

Candidate Starts for PegLeg\_102:

(Start: 39 @57809 has 3 MA's), (91, 57995), (93, 57998), (101, 58010), (110, 58040), (147, 58205), (167, 58253),

Gene: Persimmon\_40 Start: 21025, Stop: 21426, Start Num: 41

Candidate Starts for Persimmon\_40:

(Start: 41 @21025 has 56 MA's), (56, 21070), (115, 21262),

Gene: Phabba\_166 Start: 92816, Stop: 93178, Start Num: 60

Candidate Starts for Phabba\_166:

(36, 92741), (Start: 60 @92816 has 1 MA's), (85, 92915), (114, 93011), (115, 93014), (117, 93029), (119, 93038), (134, 93083), (144, 93122), (157, 93167), (159, 93173),

Gene: Phrank15\_33 Start: 23639, Stop: 24190, Start Num: 44

Candidate Starts for Phrank15\_33:

(Start: 44 @23639 has 4 MA's), (54, 23657), (77, 23750), (110, 23843), (114, 23876), (120, 23906), (129, 23933), (144, 23987), (171, 24065),

Gene: PumpkinSpice\_108 Start: 73788, Stop: 74195, Start Num: 52

Candidate Starts for PumpkinSpice\_108:

(Start: 52 @73788 has 1 MA's), (102, 73965), (104, 73968), (110, 73992), (115, 74025), (125, 74073), (126, 74076), (138, 74103), (151, 74169), (161, 74190),

Gene: PynkPanther\_99 Start: 72565, Stop: 73005, Start Num: 41

Candidate Starts for PynkPanther\_99:

(Start: 38 @72559 has 1 MA's), (Start: 41 @72565 has 56 MA's), (64, 72643), (79, 72709), (110, 72784), (125, 72859), (144, 72919), (168, 72988), (172, 72997),

Gene: PynkPanther\_33 Start: 15348, Stop: 14911, Start Num: 41

Candidate Starts for PynkPanther\_33:

(Start: 41 @15348 has 56 MA's), (117, 15075), (121, 15060), (122, 15057),

Gene: Quaran19\_166 Start: 91061, Stop: 91525, Start Num: 51

Candidate Starts for Quaran19\_166:

(Start: 51 @91061 has 4 MA's), (76, 91169), (82, 91199), (114, 91301), (125, 91355), (126, 91358), (136, 91385), (176, 91514),

Gene: Raya\_29 Start: 21456, Stop: 22004, Start Num: 44

Candidate Starts for Raya\_29:

(Start: 44 @21456 has 4 MA's), (Start: 58 @21492 has 2 MA's), (77, 21567), (99, 21630), (110, 21660), (129, 21750), (134, 21765), (148, 21834), (163, 21867), (171, 21882), (177, 21915), (178, 21954),

Gene: Riptide\_160 Start: 90983, Stop: 91441, Start Num: 41

Candidate Starts for Riptide\_160:

(Start: 41 @90983 has 56 MA's), (136, 91313), (162, 91403), (174, 91427),

Gene: Salacia\_226 Start: 127343, Stop: 126957, Start Num: 58

Candidate Starts for Salacia\_226:

(50, 127367), (Start: 58 @127343 has 2 MA's), (114, 127157), (127, 127112), (175, 126989),

Gene: Sebata\_227 Start: 127157, Stop: 126771, Start Num: 58

Candidate Starts for Sebata\_227:

(50, 127181), (Start: 58 @127157 has 2 MA's), (114, 126971), (127, 126926), (175, 126803),

Gene: Sham\_86 Start: 65422, Stop: 65853, Start Num: 41

Candidate Starts for Sham\_86:

(Start: 41 @65422 has 56 MA's), (119, 65698), (125, 65725), (150, 65821), (158, 65836),

Gene: Sheng711\_122 Start: 64965, Stop: 65390, Start Num: 41

Candidate Starts for Sheng711\_122:

(Start: 41 @64965 has 56 MA's), (113, 65220), (114, 65223), (143, 65328),

Gene: Skinny\_102 Start: 57955, Stop: 58377, Start Num: 41

Candidate Starts for Skinny\_102:

(Start: 33 @57940 has 1 MA's), (Start: 41 @57955 has 56 MA's), (80, 58105), (115, 58210), (117, 58225), (125, 58258), (133, 58279), (147, 58342),

Gene: Skitty\_26 Start: 20961, Stop: 21509, Start Num: 44

Candidate Starts for Skitty\_26:

(Start: 44 @20961 has 4 MA's), (48, 20970), (Start: 68 @21042 has 2 MA's), (99, 21135), (110, 21165), (129, 21255), (144, 21309), (171, 21387),

Gene: Skyerus\_29 Start: 21456, Stop: 22004, Start Num: 44

Candidate Starts for Skyerus\_29:

(Start: 44 @21456 has 4 MA's), (Start: 58 @21492 has 2 MA's), (77, 21567), (99, 21630), (110, 21660), (129, 21750), (134, 21765), (148, 21834), (163, 21867), (171, 21882), (177, 21915), (178, 21954),

Gene: SpeedDemon\_630 Start: 48321, Stop: 48788, Start Num: 23

Candidate Starts for SpeedDemon\_630:

(1, 48000), (2, 48108), (3, 48117), (Start: 23 @48321 has 1 MA's), (Start: 52 @48393 has 1 MA's), (90, 48549), (96, 48558), (111, 48606), (125, 48672), (138, 48702),

Gene: Spilled\_194 Start: 96766, Stop: 97155, Start Num: 41

Candidate Starts for Spilled\_194:

(Start: 41 @96766 has 56 MA's), (114, 96991), (115, 96994), (152, 97138), (157, 97147),

Gene: Spooky\_31 Start: 24621, Stop: 25199, Start Num: 17

Candidate Starts for Spooky\_31:

(Start: 17 @24621 has 2 MA's), (Start: 44 @24699 has 4 MA's), (77, 24810), (84, 24840), (125, 24987), (134, 25011), (140, 25032), (143, 25047), (144, 25050), (164, 25113), (178, 25188),

Gene: Squiddly\_33 Start: 26033, Stop: 26611, Start Num: 17

Candidate Starts for Squiddly\_33:

(Start: 17 @26033 has 2 MA's), (Start: 44 @26111 has 4 MA's), (77, 26222), (84, 26252), (125, 26399), (134, 26423), (140, 26444), (143, 26459), (144, 26462), (164, 26525), (178, 26600),

Gene: StarPlatinum\_106 Start: 73373, Stop: 73726, Start Num: 63

Candidate Starts for StarPlatinum\_106:

(13, 73211), (49, 73316), (Start: 63 @73373 has 10 MA's), (91, 73475), (110, 73514), (115, 73547),

Gene: StarPlatinum\_159 Start: 89611, Stop: 89955, Start Num: 63

Candidate Starts for StarPlatinum\_159:

(Start: 63 @89611 has 10 MA's), (115, 89803), (123, 89833), (125, 89848),

Gene: Stewart25555\_143 Start: 101011, Stop: 101472, Start Num: 41

Candidate Starts for Stewart25555\_143:

(34, 100999), (Start: 41 @101011 has 56 MA's), (102, 101209), (132, 101332), (169, 101449),

Gene: Sushi23\_176 Start: 96586, Stop: 97014, Start Num: 41

Candidate Starts for Sushi23\_176:

(Start: 41 @96586 has 56 MA's), (81, 96739), (125, 96892), (135, 96916),

Gene: Talos\_1 Start: 667, Stop: 230, Start Num: 45

Candidate Starts for Talos\_1:

(Start: 45 @667 has 1 MA's), (88, 496), (109, 460), (115, 415), (150, 268),

Gene: TomSawyer\_149 Start: 86660, Stop: 87088, Start Num: 46

Candidate Starts for TomSawyer\_149:

(5, 86519), (6, 86531), (8, 86540), (9, 86546), (24, 86603), (Start: 33 @86630 has 1 MA's), (Start: 41 @86645 has 56 MA's), (Start: 46 @86660 has 1 MA's), (Start: 68 @86744 has 2 MA's), (92, 86828), (125, 86951), (156, 87062), (163, 87074),

Gene: TomSawyer\_168 Start: 92075, Stop: 92539, Start Num: 51

Candidate Starts for TomSawyer\_168:

(40, 92048), (Start: 51 @92075 has 4 MA's), (76, 92183), (82, 92213), (114, 92315), (125, 92369), (126, 92372), (136, 92399), (176, 92528),

Gene: TomSawyer\_193 Start: 97685, Stop: 98074, Start Num: 41

Candidate Starts for TomSawyer\_193:

(Start: 41 @97685 has 56 MA's), (114, 97910), (115, 97913), (152, 98057), (157, 98066),

Gene: Towmatter\_51 Start: 41131, Stop: 41451, Start Num: 68

Candidate Starts for Towmatter\_51:

(22, 40987), (32, 41017), (Start: 41 @41032 has 56 MA's), (54, 41068), (Start: 68 @41131 has 2 MA's), (71, 41140), (101, 41230), (115, 41290), (125, 41338),

Gene: Tribute\_97 Start: 71749, Stop: 72189, Start Num: 41

Candidate Starts for Tribute\_97:

(Start: 38 @71743 has 1 MA's), (Start: 41 @71749 has 56 MA's), (64, 71827), (79, 71893), (110, 71968), (125, 72043), (144, 72103), (168, 72172), (172, 72181),

Gene: TunaTartare\_106 Start: 73259, Stop: 73636, Start Num: 41

Candidate Starts for TunaTartare\_106:

(Start: 41 @73259 has 56 MA's), (57, 73304), (115, 73487), (136, 73559), (144, 73589),

Gene: TunaTartare\_131 Start: 79206, Stop: 79715, Start Num: 16

Candidate Starts for TunaTartare\_131:

(Start: 16 @79206 has 1 MA's), (Start: 41 @79278 has 56 MA's), (66, 79362), (117, 79554), (125, 79590), (132, 79605), (135, 79617), (140, 79632),

Gene: Vetrix\_107 Start: 63521, Stop: 64000, Start Num: 41

Candidate Starts for Vetrix\_107:

(Start: 33 @63506 has 1 MA's), (Start: 39 @63518 has 3 MA's), (Start: 41 @63521 has 56 MA's), (97, 63713), (110, 63749), (113, 63773), (125, 63827), (143, 63884), (147, 63911), (173, 63968),

Gene: WashU\_98 Start: 72058, Stop: 72498, Start Num: 41

Candidate Starts for WashU\_98:

(Start: 38 @72052 has 1 MA's), (Start: 41 @72058 has 56 MA's), (64, 72136), (79, 72202), (110, 72277), (125, 72352), (172, 72490),

Gene: Watermoore\_188 Start: 100639, Stop: 101016, Start Num: 61

Candidate Starts for Watermoore\_188:

(Start: 61 @100639 has 1 MA's), (Start: 63 @100645 has 10 MA's), (112, 100804), (126, 100870), (128, 100873), (173, 101011),

Gene: Westy\_93 Start: 66532, Stop: 66957, Start Num: 41

Candidate Starts for Westy\_93:

(Start: 17 @66466 has 2 MA's), (24, 66490), (Start: 41 @66532 has 56 MA's), (101, 66724), (114, 66781), (125, 66835), (138, 66862),

Gene: WhereRU\_103 Start: 73218, Stop: 73643, Start Num: 41

Candidate Starts for WhereRU\_103:

(Start: 41 @73218 has 56 MA's), (101, 73410), (106, 73419), (136, 73548),

Gene: WhereRU\_32 Start: 14821, Stop: 14384, Start Num: 41

Candidate Starts for WhereRU\_32:

(Start: 41 @14821 has 56 MA's), (117, 14548), (121, 14533), (122, 14530),

Gene: WhereRU\_41 Start: 21615, Stop: 22016, Start Num: 41

Candidate Starts for WhereRU\_41:

(Start: 41 @21615 has 56 MA's), (56, 21660), (115, 21852),

Gene: Wipeout\_181 Start: 97029, Stop: 97418, Start Num: 41

Candidate Starts for Wipeout\_181:

(Start: 41 @97029 has 56 MA's), (114, 97254), (115, 97257), (152, 97401), (157, 97410),

Gene: Wofford\_45 Start: 23131, Stop: 23520, Start Num: 41

Candidate Starts for Wofford\_45:

(Start: 41 @23131 has 56 MA's), (43, 23143), (56, 23176), (74, 23242), (75, 23245), (95, 23293), (115, 23356), (141, 23446),

Gene: Wofford\_143 Start: 88534, Stop: 88977, Start Num: 41

Candidate Starts for Wofford\_143:

(6, 88420), (8, 88429), (9, 88435), (24, 88492), (Start: 33 @88519 has 1 MA's), (Start: 41 @88534 has 56 MA's), (Start: 68 @88633 has 2 MA's), (125, 88840),

Gene: Wofford\_171 Start: 96384, Stop: 96842, Start Num: 41

Candidate Starts for Wofford\_171:

(Start: 41 @96384 has 56 MA's), (136, 96714), (162, 96804), (174, 96828),