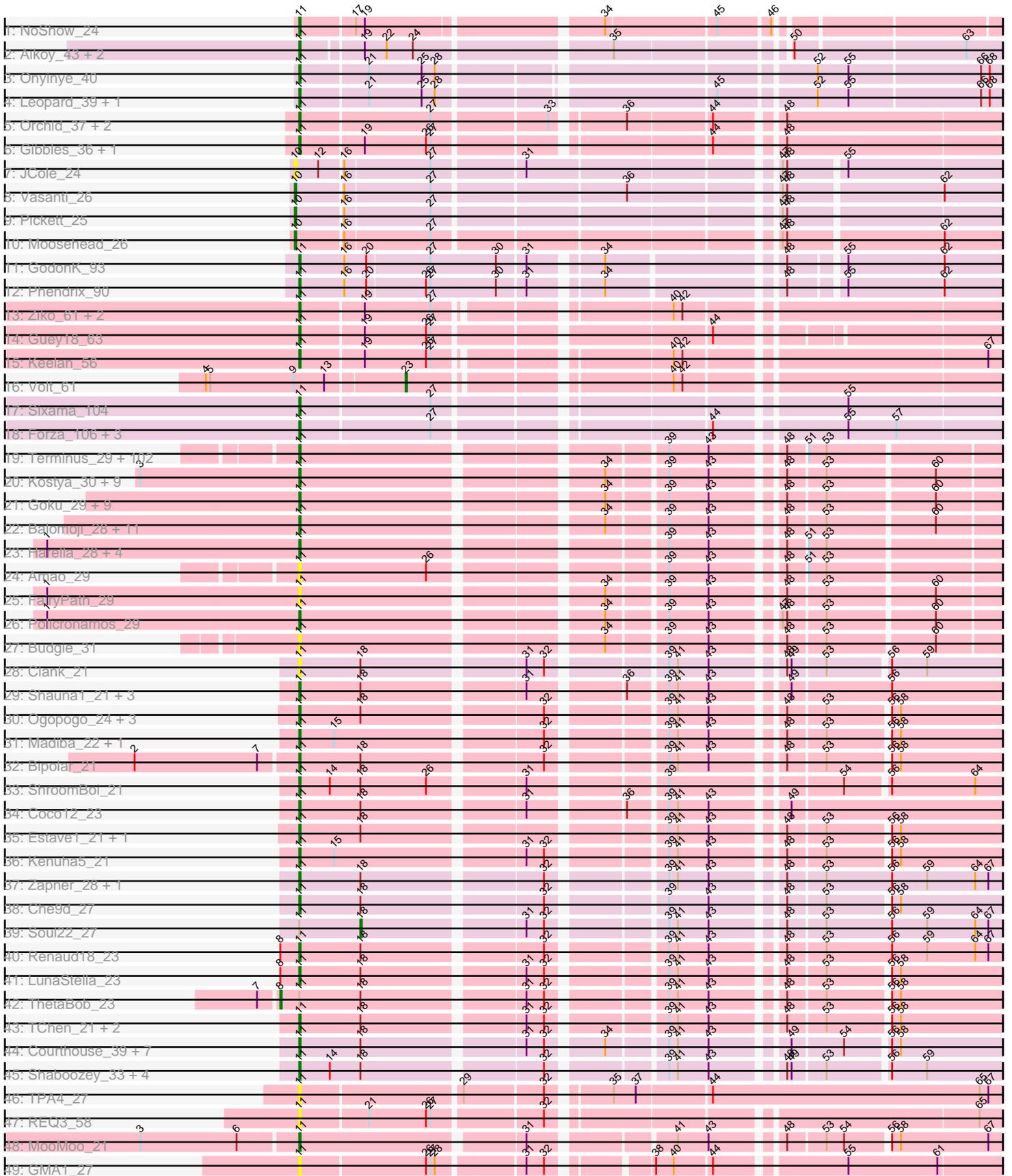


Pham 281981



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 281981 Report

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

Pham number 281981 has 217 members, 25 are drafts.

Phages represented in each track:

- Track 1 : NoShow\_24
- Track 2 : Aikoy\_43, Onyinye\_44, Leopard\_43
- Track 3 : Onyinye\_40
- Track 4 : Leopard\_39, Aikoy\_39
- Track 5 : Orchid\_37, Kampe\_38, PatrickStar\_38
- Track 6 : Gibbles\_36, RobinSparkles\_40
- Track 7 : JCole\_24
- Track 8 : Vasanti\_26
- Track 9 : Pickett\_25
- Track 10 : Moosehead\_26
- Track 11 : GodonK\_93
- Track 12 : Phendrix\_90
- Track 13 : Ziko\_61, Ronaldo\_61, Fryberger\_58
- Track 14 : Guey18\_63
- Track 15 : Keelan\_56
- Track 16 : Volt\_61
- Track 17 : Sixama\_104
- Track 18 : Forza\_106, Boopy\_106, BlueNGold\_105, Mareelih\_104
- Track 19 : Terminus\_29, Palpatine\_29, Stark\_30, 244\_31, Gemini\_32, Murica\_28, Inca\_28, BaboJay\_28, Brewer\_29, ChosenOne\_29, Elph10\_30, Greep\_30, Maxxinista\_30, Moldemort\_30, Emmina\_30, Ptowny\_30, Tarkin\_31, DoctorDiddles\_29, Hoonter\_31, Bruin\_29, Gage\_31, Cjw1\_29, BugsBunny\_27, Hopey\_31, Saints25\_30, Kimchi\_31, HanKaySha\_30, Petra64142\_31, ChotaBhai\_29, Highbury\_30, Contagion\_28, NonchalantPear\_29, Argent26\_31, Xandras\_31, Wiggyn\_32, HufflyPuff\_28, Lilpickle\_28, Qualification\_30, Easy2Say\_31, DrDrey\_30, Paperbeatsrock\_31, Holt\_30, FireRed\_29, Mosby\_28, StormChicken\_29, TeamEdward\_29, MISSy\_28, StolenFromERC\_31, Phaux\_28, MollyToe\_29, PaddyBaddy\_30, JeTaime\_31, ShereKhan\_31, Manda\_30, Rimmer\_28, StellaBean\_29, FoghornLeghorn\_28, Thimble\_29, MadamMonkfish\_29, TBrady12\_31, RiverMonster\_29, MPhalcon\_28, Teaspoon\_30, Pumpkin\_31, Tomaszewski\_28, Ukulele\_29, Pat3\_28, Dumbo\_29, Filch\_30, Czystoczon1\_30, xkcd\_30, NoSleep\_30, Becksu\_29, Bogg\_29, Phrux\_29, Porky\_29, Kanye\_31, Pharsalus\_30, Buck\_28, Sassay\_28, Adnama\_32, Elite2014\_28, BigBubba\_30, SophKB\_29, Stank\_32, GoldenSpark\_31, GooberAzure\_31, Thresher\_30, YassJohnny\_30, Miniwave\_29, Nimrod\_29, Lilizi\_31, OrionPax\_30, AmericanBeauty\_31, Willez\_28, PhatBacter\_29, Goldilocks\_30, Simpliphy\_30, Bench\_31, Lilac\_31, Murphy\_30, Misfit\_29, Cookies\_29

- Track 20 : Kostya\_30, Daikon\_28, ShamWow\_29, BilboSwaggins\_29, Henry\_30, Mindy\_29, IHOP\_29, Toto\_29, Phaja\_29, CrystalP\_29
- Track 21 : Goku\_29, Bask21\_29, SirDuracell\_28, Sotrice96\_29, NelitzaMV\_29, Marshmallow\_29, Cactus\_30, Eureka\_29, Command613\_30, Icee\_28
- Track 22 : Balomoji\_28, Dusk\_28, BadStone\_28, Tuco\_30, Rakim\_30, ABCat\_28, Barbarian\_28, Myrale\_29, TeardropMSU\_28, Gator\_27, Asriel\_28, Traaww1\_27
- Track 23 : Harella\_28, Nala\_29, Flypotenuse\_27, Glexan\_27, Youngblood\_29
- Track 24 : Amao\_29
- Track 25 : FairyPath\_29
- Track 26 : Policronamos\_29
- Track 27 : Budgie\_31
- Track 28 : Clank\_21
- Track 29 : Shauna1\_21, Phanphagia\_21, Kingsley\_22, Brookers\_22
- Track 30 : Ogopogo\_24, Avani\_27, Kersh\_22, MadMen\_22
- Track 31 : Madiba\_22, Demsculpinboyz\_27
- Track 32 : Bipolar\_21
- Track 33 : ShroomBoi\_21
- Track 34 : Coco12\_23
- Track 35 : Estave1\_21, Cornie\_23
- Track 36 : Kenuha5\_21
- Track 37 : Zapner\_28, Jabbawokkie\_29
- Track 38 : Che9d\_27
- Track 39 : Soul22\_27
- Track 40 : Renaud18\_23
- Track 41 : LunaStella\_23
- Track 42 : ThetaBob\_23
- Track 43 : TChen\_21, Pollywog\_24, Yoshi\_27
- Track 44 : Courthouse\_39, Porcelain\_38, Ariel\_39, Lucky2013\_39, Superphikiman\_39, MiaZeal\_39, Squint\_38, DmpstrDiver\_40
- Track 45 : Shaboozey\_33, Hannaconda\_36, Nibley\_34, KashFlow\_33, BronnyJames\_33
- Track 46 : TPA4\_27
- Track 47 : REQ3\_58
- Track 48 : MooMoo\_21
- Track 49 : GMA1\_27

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

The start number called the most often in the published annotations is 11, it was called in 186 of the 192 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244\_31, ABCat\_28, Adnama\_32, Aikoy\_39, Aikoy\_43, Amao\_29, AmericanBeauty\_31, Argent26\_31, Ariel\_39, Asriel\_28, Avani\_27, BaboJay\_28, BadStone\_28, Balomoji\_28, Barbarian\_28, Bask21\_29, Becksu\_29, Bench\_31, BigBubba\_30, BilboSwaggins\_29, Bipolar\_21, BlueNGold\_105, Bogg\_29, Boopy\_106, Brewer\_29, BronnyJames\_33, Brookers\_22, Bruin\_29, Buck\_28, Budgie\_31, BugsBunny\_27, Cactus\_30, Che9d\_27, ChosenOne\_29, ChotaBhai\_29, Cjw1\_29, Clank\_21, Coco12\_23, Command613\_30, Contagion\_28, Cookies\_29, Cornie\_23, Courthouse\_39, CrystalP\_29, Czyszczonek1\_30, Daikon\_28,

Demsculpinboyz\_27, DmpstrDiver\_40, DoctorDiddles\_29, DrDrey\_30, Dumbo\_29, Dusk\_28, Easy2Say\_31, Elite2014\_28, Elph10\_30, Emmina\_30, Estave1\_21, Eureka\_29, FairyPath\_29, Filch\_30, FireRed\_29, Flypotenuse\_27, FoghornLeghorn\_28, Forza\_106, Fryberger\_58, GMA1\_27, Gage\_31, Gator\_27, Gemini\_32, Gibbles\_36, Glexan\_27, GodonK\_93, Goku\_29, GoldenSpark\_31, Goldilocks\_30, GooberAzure\_31, Greep\_30, Guey18\_63, HanKaySha\_30, Hannaconda\_36, Harella\_28, Henry\_30, Highbury\_30, Holt\_30, Hoonter\_31, Hopey\_31, HufflyPuff\_28, IHOP\_29, Icee\_28, Inca\_28, Jabbawokkie\_29, JeTaimie\_31, Kampe\_38, Kanye\_31, KashFlow\_33, Keelan\_56, Kenuha5\_21, Kersh\_22, Kimchi\_31, Kingsley\_22, Kostya\_30, Leopard\_39, Leopard\_43, Lilac\_31, Lilizi\_31, Lilpickle\_28, Lucky2013\_39, LunaStella\_23, MISSy\_28, MPhalcon\_28, MadMen\_22, MadamMonkfish\_29, Madiba\_22, Manda\_30, Mareelih\_104, Marshmallow\_29, Maxxinista\_30, MiaZeal\_39, Mindy\_29, Miniwave\_29, Misfit\_29, Moldemort\_30, MollyToe\_29, MooMoo\_21, Mosby\_28, Murica\_28, Murphy\_30, Myrale\_29, Nala\_29, NelitzaMV\_29, Nibley\_34, Nimrod\_29, NoShow\_24, NoSleep\_30, NonchalantPear\_29, Ogopogo\_24, Onyinye\_40, Onyinye\_44, Orchid\_37, OrionPax\_30, PaddyBaddy\_30, Palpatine\_29, Paperbeatsrock\_31, Pat3\_28, PatrickStar\_38, Petra64142\_31, Phaja\_29, Phanphagia\_21, Pharsalus\_30, PhatBacter\_29, Phaux\_28, Phendrix\_90, Phrux\_29, Policronamos\_29, Pollywog\_24, Porcelain\_38, Porky\_29, Ptowny\_30, Pumpkin\_31, Qualification\_30, REQ3\_58, Rakim\_30, Renaud18\_23, Rimmer\_28, RiverMonster\_29, RobinSparkles\_40, Ronaldo\_61, Saints25\_30, Sassay\_28, Shaboozey\_33, ShamWow\_29, Shauna1\_21, ShereKhan\_31, ShroomBoi\_21, Simpliphy\_30, SirDuracell\_28, Sixama\_104, SophKB\_29, Sotrice96\_29, Squint\_38, Stank\_32, Stark\_30, StellaBean\_29, StolenFromERC\_31, StormChicken\_29, Superphikiman\_39, TBrady12\_31, TChen\_21, TPA4\_27, Tarkin\_31, TeamEdward\_29, TeardropMSU\_28, Teaspoon\_30, Terminus\_29, Thimble\_29, Thresher\_30, Tomaszewski\_28, Toto\_29, Traaww1\_27, Tuco\_30, Ukulele\_29, Wiggin\_32, Willez\_28, Xandras\_31, YassJohnny\_30, Yoshi\_27, Youngblood\_29, Zapner\_28, Ziko\_61, xkcd\_30,

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

- Soul22\_27, ThetaBob\_23,

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

- JCole\_24, Moosehead\_26, Pickett\_25, Vasanti\_26, Volt\_61,

### Summary by start number:

Start 8:

- Found in 3 of 217 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 1 of 192
- Called 33.3% of time when present
- Phage (with cluster) where this start called: ThetaBob\_23 (F4),

Start 10:

- Found in 4 of 217 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 3 of 192
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JCole\_24 (CZ2), Moosehead\_26 (CZ6), Pickett\_25 (CZ2), Vasanti\_26 (CZ2),

Start 11:

- Found in 212 of 217 ( 97.7% ) of genes in pham

- Manual Annotations of this start: 186 of 192
- Called 99.1% of time when present
- Phage (with cluster) where this start called: 244\_31 (E), ABCat\_28 (E), Adnama\_32 (E), Aikoy\_39 (AE), Aikoy\_43 (AE), Amao\_29 (E), AmericanBeauty\_31 (E), Argent26\_31 (E), Ariel\_39 (J), Asriel\_28 (E), Avani\_27 (F2), BaboJay\_28 (E), BadStone\_28 (E), Balomoji\_28 (E), Barbarian\_28 (E), Bask21\_29 (E), Becksu\_29 (E), Bench\_31 (E), BigBubba\_30 (E), BilboSwaggins\_29 (E), Bipolar\_21 (F1), BlueNGold\_105 (DS), Bogg\_29 (E), Boopy\_106 (DS), Brewer\_29 (E), BronnyJames\_33 (J), Brookers\_22 (F1), Bruin\_29 (E), Buck\_28 (E), Budgie\_31 (E), BugsBunny\_27 (E), Cactus\_30 (E), Che9d\_27 (F2), ChosenOne\_29 (E), ChotaBhai\_29 (E), Cjw1\_29 (E), Clank\_21 (F), Coco12\_23 (F1), Command613\_30 (E), Contagion\_28 (E), Cookies\_29 (E), Cornie\_23 (F5), Courthouse\_39 (J), CrystalP\_29 (E), Czystczon1\_30 (E), Daikon\_28 (E), Demsculpinboyz\_27 (F2), DmpstrDiver\_40 (J), DoctorDiddles\_29 (E), DrDrey\_30 (E), Dumbo\_29 (E), Dusk\_28 (E), Easy2Say\_31 (E), Elite2014\_28 (E), Elph10\_30 (E), Emmina\_30 (E), Estave1\_21 (F1), Eureka\_29 (E), FairyPath\_29 (E), Filch\_30 (E), FireRed\_29 (E), Flypotenuse\_27 (E), FoghornLeghorn\_28 (E), Forza\_106 (DS), Fryberger\_58 (DP), GMA1\_27 (singleton), Gage\_31 (E), Gator\_27 (E), Gemini\_32 (E), Gibbles\_36 (CX), Glexan\_27 (E), GodonK\_93 (DK), Goku\_29 (E), GoldenSpark\_31 (E), Goldilocks\_30 (E), GooberAzure\_31 (E), Greep\_30 (E), Guey18\_63 (DP), HanKaySha\_30 (E), Hannaconda\_36 (J), Harella\_28 (E), Henry\_30 (E), Highbury\_30 (E), Holt\_30 (E), Hoonter\_31 (E), Hopey\_31 (E), HufflyPuff\_28 (E), IHOP\_29 (E), Icee\_28 (E), Inca\_28 (E), Jabbawokkie\_29 (F2), JeTaimie\_31 (E), Kampe\_38 (CX), Kanye\_31 (E), KashFlow\_33 (J), Keelan\_56 (DP), Kenuha5\_21 (F1), Kersh\_22 (F1), Kimchi\_31 (E), Kingsley\_22 (F1), Kostya\_30 (E), Leopard\_39 (AE), Leopard\_43 (AE), Lilac\_31 (E), Lilizi\_31 (E), Lilpickle\_28 (E), Lucky2013\_39 (J), LunaStella\_23 (F4), MISSy\_28 (E), MPhalcon\_28 (E), MadMen\_22 (F1), MadamMonkfish\_29 (E), Madiba\_22 (F1), Manda\_30 (E), Mareelih\_104 (DS), Marshmallow\_29 (E), Maxxinista\_30 (E), MiaZeal\_39 (J), Mindy\_29 (E), Miniwave\_29 (E), Misfit\_29 (E), Moldemort\_30 (E), MollyToe\_29 (E), MooMoo\_21 (singleton), Mosby\_28 (E), Murica\_28 (E), Murphy\_30 (E), Myrale\_29 (E), Nala\_29 (E), NelitzaMV\_29 (E), Nibley\_34 (J), Nimrod\_29 (E), NoShow\_24 (AB), NoSleep\_30 (E), NonchalantPear\_29 (E), Ogopogo\_24 (F1), Onyinye\_40 (AE), Onyinye\_44 (AE), Orchid\_37 (CX), OrionPax\_30 (E), PaddyBaddy\_30 (E), Palpatine\_29 (E), Paperbeatsrock\_31 (E), Pat3\_28 (E), PatrickStar\_38 (CX), Petra64142\_31 (E), Phaja\_29 (E), Phanphagia\_21 (F1), Pharsalus\_30 (E), PhatBacter\_29 (E), Phaux\_28 (E), Phendrix\_90 (DK), Phrux\_29 (E), Policronamos\_29 (E), Pollywog\_24 (F1), Porcelain\_38 (J), Porky\_29 (E), Ptowny\_30 (E), Pumpkin\_31 (E), Quallification\_30 (E), REQ3\_58 (singleton), Rakim\_30 (E), Renaud18\_23 (F4), Rimmer\_28 (E), RiverMonster\_29 (E), RobinSparkles\_40 (CX), Ronaldo\_61 (DP), Saints25\_30 (E), Sassay\_28 (E), Shaboozey\_33 (J), ShamWow\_29 (E), Shauna1\_21 (F1), ShereKhan\_31 (E), ShroomBoi\_21 (F1), Simpliphy\_30 (E), SirDuracell\_28 (E), Sixama\_104 (DS), SophKB\_29 (E), Sotrice96\_29 (E), Squint\_38 (J), Stank\_32 (E), Stark\_30 (E), StellaBean\_29 (E), StolenFromERC\_31 (E), StormChicken\_29 (E), Superphikiman\_39 (J), TBrady12\_31 (E), TChen\_21 (F4), TPA4\_27 (singleton), Tarkin\_31 (E), TeamEdward\_29 (E), TeardropMSU\_28 (E), Teaspoon\_30 (E), Terminus\_29 (E), Thimble\_29 (E), Thresher\_30 (E), Tomaszewski\_28 (E), Toto\_29 (E), Traaww1\_27 (E), Tuco\_30 (E), Ukulele\_29 (E), Wiggin\_32 (E), Willez\_28 (E), Xandras\_31 (E), YassJohnny\_30 (E), Yoshi\_27 (F2), Youngblood\_29 (E), Zapner\_28 (F2), Ziko\_61 (DP), xkcd\_30 (E),

Start 18:

- Found in 37 of 217 ( 17.1% ) of genes in pham

- Manual Annotations of this start: 1 of 192
- Called 2.7% of time when present
- Phage (with cluster) where this start called: Soul22\_27 (F2),

Start 23:

- Found in 1 of 217 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 192
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Volt\_61 (DP),

### **Summary by clusters:**

There are 16 clusters represented in this pham: F1, F2, AB, F4, DK, F, CZ2, J, CZ6, singleton, CX, E, AE, DS, DP, F5,

Info for manual annotations of cluster AB:

- Start number 11 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AE:

- Start number 11 was manually annotated 6 times for cluster AE.

Info for manual annotations of cluster CX:

- Start number 11 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster CZ2:

- Start number 10 was manually annotated 2 times for cluster CZ2.

Info for manual annotations of cluster CZ6:

- Start number 10 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DK:

- Start number 11 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DP:

- Start number 11 was manually annotated 5 times for cluster DP.
- Start number 23 was manually annotated 1 time for cluster DP.

Info for manual annotations of cluster DS:

- Start number 11 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster E:

- Start number 11 was manually annotated 127 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 11 was manually annotated 14 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 11 was manually annotated 6 times for cluster F2.
- Start number 18 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:

- Start number 8 was manually annotated 1 time for cluster F4.

•Start number 11 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster F5:

•Start number 11 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster J:

•Start number 11 was manually annotated 10 times for cluster J.

### **Gene Information:**

Gene: 244\_31 Start: 28830, Stop: 29258, Start Num: 11

Candidate Starts for 244\_31:

(Start: 11 @28830 has 186 MA's), (39, 29055), (43, 29082), (48, 29124), (51, 29136), (53, 29148),

Gene: ABCat\_28 Start: 28541, Stop: 28969, Start Num: 11

Candidate Starts for ABCat\_28:

(Start: 11 @28541 has 186 MA's), (34, 28730), (39, 28766), (43, 28793), (48, 28835), (53, 28859), (60, 28928),

Gene: Adnama\_32 Start: 29057, Stop: 29485, Start Num: 11

Candidate Starts for Adnama\_32:

(Start: 11 @29057 has 186 MA's), (39, 29282), (43, 29309), (48, 29351), (51, 29363), (53, 29375),

Gene: Aikoy\_43 Start: 34014, Stop: 34448, Start Num: 11

Candidate Starts for Aikoy\_43:

(Start: 11 @34014 has 186 MA's), (19, 34053), (22, 34068), (24, 34086), (35, 34209), (50, 34314), (63, 34425),

Gene: Aikoy\_39 Start: 29482, Stop: 29922, Start Num: 11

Candidate Starts for Aikoy\_39:

(Start: 11 @29482 has 186 MA's), (21, 29527), (25, 29563), (28, 29572), (45, 29740), (52, 29800), (55, 29821), (66, 29908), (68, 29914),

Gene: Amao\_29 Start: 27754, Stop: 28182, Start Num: 11

Candidate Starts for Amao\_29:

(Start: 11 @27754 has 186 MA's), (26, 27841), (39, 27979), (43, 28006), (48, 28048), (51, 28060), (53, 28072),

Gene: AmericanBeauty\_31 Start: 28537, Stop: 28965, Start Num: 11

Candidate Starts for AmericanBeauty\_31:

(Start: 11 @28537 has 186 MA's), (39, 28762), (43, 28789), (48, 28831), (51, 28843), (53, 28855),

Gene: Argent26\_31 Start: 28540, Stop: 28968, Start Num: 11

Candidate Starts for Argent26\_31:

(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: Ariel\_39 Start: 33704, Stop: 34135, Start Num: 11

Candidate Starts for Ariel\_39:

(Start: 11 @33704 has 186 MA's), (Start: 18 @33746 has 1 MA's), (31, 33848), (32, 33860), (34, 33893), (39, 33929), (41, 33935), (43, 33956), (49, 34001), (54, 34034), (56, 34061), (58, 34067),

Gene: Asriel\_28 Start: 27410, Stop: 27838, Start Num: 11  
Candidate Starts for Asriel\_28:  
(Start: 11 @27410 has 186 MA's), (34, 27599), (39, 27635), (43, 27662), (48, 27704), (53, 27728), (60, 27797),

Gene: Avani\_27 Start: 23475, Stop: 23906, Start Num: 11  
Candidate Starts for Avani\_27:  
(Start: 11 @23475 has 186 MA's), (Start: 18 @23517 has 1 MA's), (32, 23631), (39, 23700), (41, 23706), (43, 23727), (48, 23769), (53, 23793), (56, 23832), (58, 23838),

Gene: BaboJay\_28 Start: 28100, Stop: 28528, Start Num: 11  
Candidate Starts for BaboJay\_28:  
(Start: 11 @28100 has 186 MA's), (39, 28325), (43, 28352), (48, 28394), (51, 28406), (53, 28418),

Gene: BadStone\_28 Start: 28541, Stop: 28969, Start Num: 11  
Candidate Starts for BadStone\_28:  
(Start: 11 @28541 has 186 MA's), (34, 28730), (39, 28766), (43, 28793), (48, 28835), (53, 28859), (60, 28928),

Gene: Balomoji\_28 Start: 28275, Stop: 28703, Start Num: 11  
Candidate Starts for Balomoji\_28:  
(Start: 11 @28275 has 186 MA's), (34, 28464), (39, 28500), (43, 28527), (48, 28569), (53, 28593), (60, 28662),

Gene: Barbarian\_28 Start: 27410, Stop: 27838, Start Num: 11  
Candidate Starts for Barbarian\_28:  
(Start: 11 @27410 has 186 MA's), (34, 27599), (39, 27635), (43, 27662), (48, 27704), (53, 27728), (60, 27797),

Gene: Bask21\_29 Start: 27727, Stop: 28155, Start Num: 11  
Candidate Starts for Bask21\_29:  
(Start: 11 @27727 has 186 MA's), (34, 27916), (39, 27952), (43, 27979), (48, 28021), (53, 28045), (60, 28114),

Gene: Becksu\_29 Start: 28733, Stop: 29161, Start Num: 11  
Candidate Starts for Becksu\_29:  
(Start: 11 @28733 has 186 MA's), (39, 28958), (43, 28985), (48, 29027), (51, 29039), (53, 29051),

Gene: Bench\_31 Start: 28410, Stop: 28838, Start Num: 11  
Candidate Starts for Bench\_31:  
(Start: 11 @28410 has 186 MA's), (39, 28635), (43, 28662), (48, 28704), (51, 28716), (53, 28728),

Gene: BigBubba\_30 Start: 28313, Stop: 28741, Start Num: 11  
Candidate Starts for BigBubba\_30:  
(Start: 11 @28313 has 186 MA's), (39, 28538), (43, 28565), (48, 28607), (51, 28619), (53, 28631),

Gene: BilboSwaggins\_29 Start: 28549, Stop: 28977, Start Num: 11  
Candidate Starts for BilboSwaggins\_29:  
(3, 28441), (Start: 11 @28549 has 186 MA's), (34, 28738), (39, 28774), (43, 28801), (48, 28843), (53, 28867), (60, 28936),

Gene: Bipolar\_21 Start: 23745, Stop: 24176, Start Num: 11  
Candidate Starts for Bipolar\_21:

(2, 23637), (7, 23721), (Start: 11 @23745 has 186 MA's), (Start: 18 @23787 has 1 MA's), (32, 23901), (39, 23970), (41, 23976), (43, 23997), (48, 24039), (53, 24063), (56, 24102), (58, 24108),

Gene: BlueNGold\_105 Start: 64502, Stop: 64939, Start Num: 11

Candidate Starts for BlueNGold\_105:

(Start: 11 @64502 has 186 MA's), (27, 64589), (44, 64757), (55, 64838), (57, 64871),

Gene: Bogg\_29 Start: 27450, Stop: 27878, Start Num: 11

Candidate Starts for Bogg\_29:

(Start: 11 @27450 has 186 MA's), (39, 27675), (43, 27702), (48, 27744), (51, 27756), (53, 27768),

Gene: Boopy\_106 Start: 64514, Stop: 64951, Start Num: 11

Candidate Starts for Boopy\_106:

(Start: 11 @64514 has 186 MA's), (27, 64601), (44, 64769), (55, 64850), (57, 64883),

Gene: Brewer\_29 Start: 28798, Stop: 29226, Start Num: 11

Candidate Starts for Brewer\_29:

(Start: 11 @28798 has 186 MA's), (39, 29023), (43, 29050), (48, 29092), (51, 29104), (53, 29116),

Gene: BronnyJames\_33 Start: 32243, Stop: 32674, Start Num: 11

Candidate Starts for BronnyJames\_33:

(Start: 11 @32243 has 186 MA's), (14, 32264), (Start: 18 @32285 has 1 MA's), (32, 32399), (39, 32468), (41, 32474), (43, 32495), (48, 32537), (49, 32540), (53, 32561), (56, 32600), (59, 32624),

Gene: Brookers\_22 Start: 23575, Stop: 24012, Start Num: 11

Candidate Starts for Brookers\_22:

(Start: 11 @23575 has 186 MA's), (Start: 18 @23617 has 1 MA's), (31, 23719), (36, 23776), (39, 23800), (41, 23806), (43, 23827), (49, 23872), (56, 23938),

Gene: Bruin\_29 Start: 28570, Stop: 28998, Start Num: 11

Candidate Starts for Bruin\_29:

(Start: 11 @28570 has 186 MA's), (39, 28795), (43, 28822), (48, 28864), (51, 28876), (53, 28888),

Gene: Buck\_28 Start: 28506, Stop: 28934, Start Num: 11

Candidate Starts for Buck\_28:

(Start: 11 @28506 has 186 MA's), (39, 28731), (43, 28758), (48, 28800), (51, 28812), (53, 28824),

Gene: Budgie\_31 Start: 27935, Stop: 28363, Start Num: 11

Candidate Starts for Budgie\_31:

(Start: 11 @27935 has 186 MA's), (34, 28124), (39, 28160), (43, 28187), (48, 28229), (53, 28253), (60, 28322),

Gene: BugsBunny\_27 Start: 28139, Stop: 28567, Start Num: 11

Candidate Starts for BugsBunny\_27:

(Start: 11 @28139 has 186 MA's), (39, 28364), (43, 28391), (48, 28433), (51, 28445), (53, 28457),

Gene: Cactus\_30 Start: 27760, Stop: 28188, Start Num: 11

Candidate Starts for Cactus\_30:

(Start: 11 @27760 has 186 MA's), (34, 27949), (39, 27985), (43, 28012), (48, 28054), (53, 28078), (60, 28147),

Gene: Che9d\_27 Start: 23483, Stop: 23914, Start Num: 11

Candidate Starts for Che9d\_27:

(Start: 11 @23483 has 186 MA's), (Start: 18 @23525 has 1 MA's), (32, 23639), (39, 23708), (43, 23735), (48, 23777), (53, 23801), (56, 23840), (58, 23846),

Gene: ChosenOne\_29 Start: 27758, Stop: 28186, Start Num: 11

Candidate Starts for ChosenOne\_29:

(Start: 11 @27758 has 186 MA's), (39, 27983), (43, 28010), (48, 28052), (51, 28064), (53, 28076),

Gene: ChotaBhai\_29 Start: 27796, Stop: 28224, Start Num: 11

Candidate Starts for ChotaBhai\_29:

(Start: 11 @27796 has 186 MA's), (39, 28021), (43, 28048), (48, 28090), (51, 28102), (53, 28114),

Gene: Cjw1\_29 Start: 29310, Stop: 29738, Start Num: 11

Candidate Starts for Cjw1\_29:

(Start: 11 @29310 has 186 MA's), (39, 29535), (43, 29562), (48, 29604), (51, 29616), (53, 29628),

Gene: Clank\_21 Start: 23855, Stop: 24286, Start Num: 11

Candidate Starts for Clank\_21:

(Start: 11 @23855 has 186 MA's), (Start: 18 @23897 has 1 MA's), (31, 23999), (32, 24011), (39, 24080), (41, 24086), (43, 24107), (48, 24149), (49, 24152), (53, 24173), (56, 24212), (59, 24236),

Gene: Coco12\_23 Start: 24119, Stop: 24556, Start Num: 11

Candidate Starts for Coco12\_23:

(Start: 11 @24119 has 186 MA's), (Start: 18 @24161 has 1 MA's), (31, 24263), (36, 24320), (39, 24344), (41, 24350), (43, 24371), (49, 24416),

Gene: Command613\_30 Start: 28816, Stop: 29244, Start Num: 11

Candidate Starts for Command613\_30:

(Start: 11 @28816 has 186 MA's), (34, 29005), (39, 29041), (43, 29068), (48, 29110), (53, 29134), (60, 29203),

Gene: Contagion\_28 Start: 28054, Stop: 28482, Start Num: 11

Candidate Starts for Contagion\_28:

(Start: 11 @28054 has 186 MA's), (39, 28279), (43, 28306), (48, 28348), (51, 28360), (53, 28372),

Gene: Cookies\_29 Start: 28419, Stop: 28847, Start Num: 11

Candidate Starts for Cookies\_29:

(Start: 11 @28419 has 186 MA's), (39, 28644), (43, 28671), (48, 28713), (51, 28725), (53, 28737),

Gene: Cornie\_23 Start: 24610, Stop: 25041, Start Num: 11

Candidate Starts for Cornie\_23:

(Start: 11 @24610 has 186 MA's), (Start: 18 @24652 has 1 MA's), (39, 24835), (41, 24841), (43, 24862), (48, 24904), (53, 24928), (56, 24967), (58, 24973),

Gene: Courthouse\_39 Start: 34108, Stop: 34539, Start Num: 11

Candidate Starts for Courthouse\_39:

(Start: 11 @34108 has 186 MA's), (Start: 18 @34150 has 1 MA's), (31, 34252), (32, 34264), (34, 34297), (39, 34333), (41, 34339), (43, 34360), (49, 34405), (54, 34438), (56, 34465), (58, 34471),

Gene: CrystalP\_29 Start: 28549, Stop: 28977, Start Num: 11

Candidate Starts for CrystalP\_29:

(3, 28441), (Start: 11 @28549 has 186 MA's), (34, 28738), (39, 28774), (43, 28801), (48, 28843), (53, 28867), (60, 28936),

Gene: Czyszczone1\_30 Start: 28295, Stop: 28723, Start Num: 11  
Candidate Starts for Czyszczone1\_30:  
(Start: 11 @28295 has 186 MA's), (39, 28520), (43, 28547), (48, 28589), (51, 28601), (53, 28613),

Gene: Daikon\_28 Start: 28287, Stop: 28715, Start Num: 11  
Candidate Starts for Daikon\_28:  
(3, 28179), (Start: 11 @28287 has 186 MA's), (34, 28476), (39, 28512), (43, 28539), (48, 28581), (53, 28605), (60, 28674),

Gene: Demsculpinboyz\_27 Start: 23468, Stop: 23899, Start Num: 11  
Candidate Starts for Demsculpinboyz\_27:  
(Start: 11 @23468 has 186 MA's), (15, 23492), (32, 23624), (39, 23693), (41, 23699), (43, 23720), (48, 23762), (53, 23786), (56, 23825), (58, 23831),

Gene: DmpstrDiver\_40 Start: 36756, Stop: 37187, Start Num: 11  
Candidate Starts for DmpstrDiver\_40:  
(Start: 11 @36756 has 186 MA's), (Start: 18 @36798 has 1 MA's), (31, 36900), (32, 36912), (34, 36945), (39, 36981), (41, 36987), (43, 37008), (49, 37053), (54, 37086), (56, 37113), (58, 37119),

Gene: DoctorDiddles\_29 Start: 27712, Stop: 28140, Start Num: 11  
Candidate Starts for DoctorDiddles\_29:  
(Start: 11 @27712 has 186 MA's), (39, 27937), (43, 27964), (48, 28006), (51, 28018), (53, 28030),

Gene: DrDrey\_30 Start: 29042, Stop: 29470, Start Num: 11  
Candidate Starts for DrDrey\_30:  
(Start: 11 @29042 has 186 MA's), (39, 29267), (43, 29294), (48, 29336), (51, 29348), (53, 29360),

Gene: Dumbo\_29 Start: 28017, Stop: 28445, Start Num: 11  
Candidate Starts for Dumbo\_29:  
(Start: 11 @28017 has 186 MA's), (39, 28242), (43, 28269), (48, 28311), (51, 28323), (53, 28335),

Gene: Dusk\_28 Start: 28201, Stop: 28629, Start Num: 11  
Candidate Starts for Dusk\_28:  
(Start: 11 @28201 has 186 MA's), (34, 28390), (39, 28426), (43, 28453), (48, 28495), (53, 28519), (60, 28588),

Gene: Easy2Say\_31 Start: 29800, Stop: 30228, Start Num: 11  
Candidate Starts for Easy2Say\_31:  
(Start: 11 @29800 has 186 MA's), (39, 30025), (43, 30052), (48, 30094), (51, 30106), (53, 30118),

Gene: Elite2014\_28 Start: 27757, Stop: 28185, Start Num: 11  
Candidate Starts for Elite2014\_28:  
(Start: 11 @27757 has 186 MA's), (39, 27982), (43, 28009), (48, 28051), (51, 28063), (53, 28075),

Gene: Elph10\_30 Start: 28020, Stop: 28448, Start Num: 11  
Candidate Starts for Elph10\_30:  
(Start: 11 @28020 has 186 MA's), (39, 28245), (43, 28272), (48, 28314), (51, 28326), (53, 28338),

Gene: Emmina\_30 Start: 28378, Stop: 28806, Start Num: 11  
Candidate Starts for Emmina\_30:  
(Start: 11 @28378 has 186 MA's), (39, 28603), (43, 28630), (48, 28672), (51, 28684), (53, 28696),

Gene: Estave1\_21 Start: 23840, Stop: 24271, Start Num: 11

Candidate Starts for Estave1\_21:

(Start: 11 @23840 has 186 MA's), (Start: 18 @23882 has 1 MA's), (39, 24065), (41, 24071), (43, 24092), (48, 24134), (53, 24158), (56, 24197), (58, 24203),

Gene: Eureka\_29 Start: 28533, Stop: 28961, Start Num: 11

Candidate Starts for Eureka\_29:

(Start: 11 @28533 has 186 MA's), (34, 28722), (39, 28758), (43, 28785), (48, 28827), (53, 28851), (60, 28920),

Gene: FairyPath\_29 Start: 28745, Stop: 29173, Start Num: 11

Candidate Starts for FairyPath\_29:

(1, 28574), (Start: 11 @28745 has 186 MA's), (34, 28934), (39, 28970), (43, 28997), (48, 29039), (53, 29063), (60, 29132),

Gene: Filch\_30 Start: 28308, Stop: 28736, Start Num: 11

Candidate Starts for Filch\_30:

(Start: 11 @28308 has 186 MA's), (39, 28533), (43, 28560), (48, 28602), (51, 28614), (53, 28626),

Gene: FireRed\_29 Start: 28578, Stop: 29006, Start Num: 11

Candidate Starts for FireRed\_29:

(Start: 11 @28578 has 186 MA's), (39, 28803), (43, 28830), (48, 28872), (51, 28884), (53, 28896),

Gene: Flypotenuse\_27 Start: 28146, Stop: 28574, Start Num: 11

Candidate Starts for Flypotenuse\_27:

(1, 27975), (Start: 11 @28146 has 186 MA's), (39, 28371), (43, 28398), (48, 28440), (51, 28452), (53, 28464),

Gene: FoghornLeghorn\_28 Start: 28054, Stop: 28482, Start Num: 11

Candidate Starts for FoghornLeghorn\_28:

(Start: 11 @28054 has 186 MA's), (39, 28279), (43, 28306), (48, 28348), (51, 28360), (53, 28372),

Gene: Forza\_106 Start: 64430, Stop: 64867, Start Num: 11

Candidate Starts for Forza\_106:

(Start: 11 @64430 has 186 MA's), (27, 64517), (44, 64685), (55, 64766), (57, 64799),

Gene: Fryberger\_58 Start: 31819, Stop: 32250, Start Num: 11

Candidate Starts for Fryberger\_58:

(Start: 11 @31819 has 186 MA's), (19, 31861), (27, 31906), (40, 32044), (42, 32050),

Gene: GMA1\_27 Start: 21102, Stop: 21533, Start Num: 11

Candidate Starts for GMA1\_27:

(Start: 11 @21102 has 186 MA's), (26, 21186), (27, 21189), (28, 21192), (31, 21246), (32, 21258), (38, 21315), (40, 21327), (44, 21351), (55, 21432), (61, 21492),

Gene: Gage\_31 Start: 28540, Stop: 28968, Start Num: 11

Candidate Starts for Gage\_31:

(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: Gator\_27 Start: 28157, Stop: 28585, Start Num: 11

Candidate Starts for Gator\_27:

(Start: 11 @28157 has 186 MA's), (34, 28346), (39, 28382), (43, 28409), (48, 28451), (53, 28475), (60, 28544),

Gene: Gemini\_32 Start: 29057, Stop: 29485, Start Num: 11  
Candidate Starts for Gemini\_32:  
(Start: 11 @29057 has 186 MA's), (39, 29282), (43, 29309), (48, 29351), (51, 29363), (53, 29375),

Gene: Gibbles\_36 Start: 39171, Stop: 39608, Start Num: 11  
Candidate Starts for Gibbles\_36:  
(Start: 11 @39171 has 186 MA's), (19, 39213), (26, 39255), (27, 39258), (44, 39426), (48, 39465),

Gene: Glexan\_27 Start: 28146, Stop: 28574, Start Num: 11  
Candidate Starts for Glexan\_27:  
(1, 27975), (Start: 11 @28146 has 186 MA's), (39, 28371), (43, 28398), (48, 28440), (51, 28452), (53, 28464),

Gene: GodonK\_93 Start: 56582, Stop: 57016, Start Num: 11  
Candidate Starts for GodonK\_93:  
(Start: 11 @56582 has 186 MA's), (16, 56612), (20, 56627), (27, 56669), (30, 56714), (31, 56732), (34, 56774), (48, 56882), (55, 56915), (62, 56978),

Gene: Goku\_29 Start: 28262, Stop: 28690, Start Num: 11  
Candidate Starts for Goku\_29:  
(Start: 11 @28262 has 186 MA's), (34, 28451), (39, 28487), (43, 28514), (48, 28556), (53, 28580), (60, 28649),

Gene: GoldenSpark\_31 Start: 28540, Stop: 28968, Start Num: 11  
Candidate Starts for GoldenSpark\_31:  
(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: Goldilocks\_30 Start: 27960, Stop: 28388, Start Num: 11  
Candidate Starts for Goldilocks\_30:  
(Start: 11 @27960 has 186 MA's), (39, 28185), (43, 28212), (48, 28254), (51, 28266), (53, 28278),

Gene: GooberAzure\_31 Start: 28540, Stop: 28968, Start Num: 11  
Candidate Starts for GooberAzure\_31:  
(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: Greep\_30 Start: 28870, Stop: 29298, Start Num: 11  
Candidate Starts for Greep\_30:  
(Start: 11 @28870 has 186 MA's), (39, 29095), (43, 29122), (48, 29164), (51, 29176), (53, 29188),

Gene: Guey18\_63 Start: 33017, Stop: 33448, Start Num: 11  
Candidate Starts for Guey18\_63:  
(Start: 11 @33017 has 186 MA's), (19, 33059), (26, 33101), (27, 33104), (44, 33275),

Gene: HanKaySha\_30 Start: 28292, Stop: 28720, Start Num: 11  
Candidate Starts for HanKaySha\_30:  
(Start: 11 @28292 has 186 MA's), (39, 28517), (43, 28544), (48, 28586), (51, 28598), (53, 28610),

Gene: Hannaconda\_36 Start: 32698, Stop: 33129, Start Num: 11  
Candidate Starts for Hannaconda\_36:  
(Start: 11 @32698 has 186 MA's), (14, 32719), (Start: 18 @32740 has 1 MA's), (32, 32854), (39, 32923), (41, 32929), (43, 32950), (48, 32992), (49, 32995), (53, 33016), (56, 33055), (59, 33079),

Gene: Harella\_28 Start: 28662, Stop: 29090, Start Num: 11

Candidate Starts for Harella\_28:

(1, 28491), (Start: 11 @28662 has 186 MA's), (39, 28887), (43, 28914), (48, 28956), (51, 28968), (53, 28980),

Gene: Henry\_30 Start: 28549, Stop: 28977, Start Num: 11

Candidate Starts for Henry\_30:

(3, 28441), (Start: 11 @28549 has 186 MA's), (34, 28738), (39, 28774), (43, 28801), (48, 28843), (53, 28867), (60, 28936),

Gene: Highbury\_30 Start: 28208, Stop: 28636, Start Num: 11

Candidate Starts for Highbury\_30:

(Start: 11 @28208 has 186 MA's), (39, 28433), (43, 28460), (48, 28502), (51, 28514), (53, 28526),

Gene: Holt\_30 Start: 27827, Stop: 28255, Start Num: 11

Candidate Starts for Holt\_30:

(Start: 11 @27827 has 186 MA's), (39, 28052), (43, 28079), (48, 28121), (51, 28133), (53, 28145),

Gene: Hoonter\_31 Start: 28540, Stop: 28968, Start Num: 11

Candidate Starts for Hoonter\_31:

(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: Hokey\_31 Start: 28827, Stop: 29255, Start Num: 11

Candidate Starts for Hokey\_31:

(Start: 11 @28827 has 186 MA's), (39, 29052), (43, 29079), (48, 29121), (51, 29133), (53, 29145),

Gene: HufflyPuff\_28 Start: 28534, Stop: 28962, Start Num: 11

Candidate Starts for HufflyPuff\_28:

(Start: 11 @28534 has 186 MA's), (39, 28759), (43, 28786), (48, 28828), (51, 28840), (53, 28852),

Gene: IHOP\_29 Start: 28725, Stop: 29153, Start Num: 11

Candidate Starts for IHOP\_29:

(3, 28617), (Start: 11 @28725 has 186 MA's), (34, 28914), (39, 28950), (43, 28977), (48, 29019), (53, 29043), (60, 29112),

Gene: Icee\_28 Start: 28207, Stop: 28635, Start Num: 11

Candidate Starts for Icee\_28:

(Start: 11 @28207 has 186 MA's), (34, 28396), (39, 28432), (43, 28459), (48, 28501), (53, 28525), (60, 28594),

Gene: Inca\_28 Start: 27229, Stop: 27657, Start Num: 11

Candidate Starts for Inca\_28:

(Start: 11 @27229 has 186 MA's), (39, 27454), (43, 27481), (48, 27523), (51, 27535), (53, 27547),

Gene: JCole\_24 Start: 20984, Stop: 21424, Start Num: 10

Candidate Starts for JCole\_24:

(Start: 10 @20984 has 3 MA's), (12, 20999), (16, 21014), (27, 21071), (31, 21128), (47, 21284), (48, 21287), (55, 21323),

Gene: Jabbawokkie\_29 Start: 24166, Stop: 24603, Start Num: 11

Candidate Starts for Jabbawokkie\_29:

(Start: 11 @24166 has 186 MA's), (Start: 18 @24208 has 1 MA's), (32, 24322), (39, 24391), (41, 24397), (43, 24418), (48, 24460), (53, 24484), (56, 24529), (59, 24553), (64, 24586), (67, 24595),

Gene: JeTaime\_31 Start: 29351, Stop: 29779, Start Num: 11  
Candidate Starts for JeTaime\_31:  
(Start: 11 @29351 has 186 MA's), (39, 29576), (43, 29603), (48, 29645), (51, 29657), (53, 29669),

Gene: Kampe\_38 Start: 38735, Stop: 39172, Start Num: 11  
Candidate Starts for Kampe\_38:  
(Start: 11 @38735 has 186 MA's), (27, 38822), (33, 38894), (36, 38936), (44, 38990), (48, 39029),

Gene: Kanye\_31 Start: 29536, Stop: 29964, Start Num: 11  
Candidate Starts for Kanye\_31:  
(Start: 11 @29536 has 186 MA's), (39, 29761), (43, 29788), (48, 29830), (51, 29842), (53, 29854),

Gene: KashFlow\_33 Start: 32319, Stop: 32750, Start Num: 11  
Candidate Starts for KashFlow\_33:  
(Start: 11 @32319 has 186 MA's), (14, 32340), (Start: 18 @32361 has 1 MA's), (32, 32475), (39, 32544), (41, 32550), (43, 32571), (48, 32613), (49, 32616), (53, 32637), (56, 32676), (59, 32700),

Gene: Keelan\_56 Start: 31817, Stop: 32248, Start Num: 11  
Candidate Starts for Keelan\_56:  
(Start: 11 @31817 has 186 MA's), (19, 31859), (26, 31901), (27, 31904), (40, 32042), (42, 32048), (67, 32240),

Gene: Kenuha5\_21 Start: 23861, Stop: 24292, Start Num: 11  
Candidate Starts for Kenuha5\_21:  
(Start: 11 @23861 has 186 MA's), (15, 23885), (31, 24005), (32, 24017), (39, 24086), (41, 24092), (43, 24113), (48, 24155), (53, 24179), (56, 24218), (58, 24224),

Gene: Kersh\_22 Start: 23904, Stop: 24335, Start Num: 11  
Candidate Starts for Kersh\_22:  
(Start: 11 @23904 has 186 MA's), (Start: 18 @23946 has 1 MA's), (32, 24060), (39, 24129), (41, 24135), (43, 24156), (48, 24198), (53, 24222), (56, 24261), (58, 24267),

Gene: Kimchi\_31 Start: 28543, Stop: 28971, Start Num: 11  
Candidate Starts for Kimchi\_31:  
(Start: 11 @28543 has 186 MA's), (39, 28768), (43, 28795), (48, 28837), (51, 28849), (53, 28861),

Gene: Kingsley\_22 Start: 23580, Stop: 24017, Start Num: 11  
Candidate Starts for Kingsley\_22:  
(Start: 11 @23580 has 186 MA's), (Start: 18 @23622 has 1 MA's), (31, 23724), (36, 23781), (39, 23805), (41, 23811), (43, 23832), (49, 23877), (56, 23943),

Gene: Kostya\_30 Start: 28550, Stop: 28978, Start Num: 11  
Candidate Starts for Kostya\_30:  
(3, 28442), (Start: 11 @28550 has 186 MA's), (34, 28739), (39, 28775), (43, 28802), (48, 28844), (53, 28868), (60, 28937),

Gene: Leopard\_43 Start: 34302, Stop: 34736, Start Num: 11  
Candidate Starts for Leopard\_43:  
(Start: 11 @34302 has 186 MA's), (19, 34341), (22, 34356), (24, 34374), (35, 34497), (50, 34602), (63, 34713),

Gene: Leopard\_39 Start: 29770, Stop: 30210, Start Num: 11  
Candidate Starts for Leopard\_39:

(Start: 11 @29770 has 186 MA's), (21, 29815), (25, 29851), (28, 29860), (45, 30028), (52, 30088), (55, 30109), (66, 30196), (68, 30202),

Gene: Lilac\_31 Start: 28047, Stop: 28475, Start Num: 11

Candidate Starts for Lilac\_31:

(Start: 11 @28047 has 186 MA's), (39, 28272), (43, 28299), (48, 28341), (51, 28353), (53, 28365),

Gene: Lilizi\_31 Start: 28255, Stop: 28683, Start Num: 11

Candidate Starts for Lilizi\_31:

(Start: 11 @28255 has 186 MA's), (39, 28480), (43, 28507), (48, 28549), (51, 28561), (53, 28573),

Gene: Lilpickle\_28 Start: 27757, Stop: 28185, Start Num: 11

Candidate Starts for Lilpickle\_28:

(Start: 11 @27757 has 186 MA's), (39, 27982), (43, 28009), (48, 28051), (51, 28063), (53, 28075),

Gene: Lucky2013\_39 Start: 34235, Stop: 34666, Start Num: 11

Candidate Starts for Lucky2013\_39:

(Start: 11 @34235 has 186 MA's), (Start: 18 @34277 has 1 MA's), (31, 34379), (32, 34391), (34, 34424), (39, 34460), (41, 34466), (43, 34487), (49, 34532), (54, 34565), (56, 34592), (58, 34598),

Gene: LunaStella\_23 Start: 24249, Stop: 24680, Start Num: 11

Candidate Starts for LunaStella\_23:

(Start: 8 @24237 has 1 MA's), (Start: 11 @24249 has 186 MA's), (Start: 18 @24291 has 1 MA's), (31, 24393), (32, 24405), (39, 24474), (41, 24480), (43, 24501), (48, 24543), (53, 24567), (56, 24606), (58, 24612),

Gene: MISSy\_28 Start: 28062, Stop: 28490, Start Num: 11

Candidate Starts for MISSy\_28:

(Start: 11 @28062 has 186 MA's), (39, 28287), (43, 28314), (48, 28356), (51, 28368), (53, 28380),

Gene: MPhalcon\_28 Start: 28056, Stop: 28484, Start Num: 11

Candidate Starts for MPhalcon\_28:

(Start: 11 @28056 has 186 MA's), (39, 28281), (43, 28308), (48, 28350), (51, 28362), (53, 28374),

Gene: MadMen\_22 Start: 23958, Stop: 24389, Start Num: 11

Candidate Starts for MadMen\_22:

(Start: 11 @23958 has 186 MA's), (Start: 18 @24000 has 1 MA's), (32, 24114), (39, 24183), (41, 24189), (43, 24210), (48, 24252), (53, 24276), (56, 24315), (58, 24321),

Gene: MadamMonkfish\_29 Start: 27968, Stop: 28396, Start Num: 11

Candidate Starts for MadamMonkfish\_29:

(Start: 11 @27968 has 186 MA's), (39, 28193), (43, 28220), (48, 28262), (51, 28274), (53, 28286),

Gene: Madiba\_22 Start: 23608, Stop: 24039, Start Num: 11

Candidate Starts for Madiba\_22:

(Start: 11 @23608 has 186 MA's), (15, 23632), (32, 23764), (39, 23833), (41, 23839), (43, 23860), (48, 23902), (53, 23926), (56, 23965), (58, 23971),

Gene: Manda\_30 Start: 29035, Stop: 29463, Start Num: 11

Candidate Starts for Manda\_30:

(Start: 11 @29035 has 186 MA's), (39, 29260), (43, 29287), (48, 29329), (51, 29341), (53, 29353),

Gene: Mareelih\_104 Start: 63932, Stop: 64369, Start Num: 11

Candidate Starts for Mareelih\_104:

(Start: 11 @63932 has 186 MA's), (27, 64019), (44, 64187), (55, 64268), (57, 64301),

Gene: Marshmallow\_29 Start: 28547, Stop: 28975, Start Num: 11

Candidate Starts for Marshmallow\_29:

(Start: 11 @28547 has 186 MA's), (34, 28736), (39, 28772), (43, 28799), (48, 28841), (53, 28865), (60, 28934),

Gene: Maxxinista\_30 Start: 28017, Stop: 28445, Start Num: 11

Candidate Starts for Maxxinista\_30:

(Start: 11 @28017 has 186 MA's), (39, 28242), (43, 28269), (48, 28311), (51, 28323), (53, 28335),

Gene: MiaZeal\_39 Start: 33919, Stop: 34350, Start Num: 11

Candidate Starts for MiaZeal\_39:

(Start: 11 @33919 has 186 MA's), (Start: 18 @33961 has 1 MA's), (31, 34063), (32, 34075), (34, 34108), (39, 34144), (41, 34150), (43, 34171), (49, 34216), (54, 34249), (56, 34276), (58, 34282),

Gene: Mindy\_29 Start: 28327, Stop: 28755, Start Num: 11

Candidate Starts for Mindy\_29:

(3, 28219), (Start: 11 @28327 has 186 MA's), (34, 28516), (39, 28552), (43, 28579), (48, 28621), (53, 28645), (60, 28714),

Gene: Miniwave\_29 Start: 28747, Stop: 29175, Start Num: 11

Candidate Starts for Miniwave\_29:

(Start: 11 @28747 has 186 MA's), (39, 28972), (43, 28999), (48, 29041), (51, 29053), (53, 29065),

Gene: Misfit\_29 Start: 28637, Stop: 29065, Start Num: 11

Candidate Starts for Misfit\_29:

(Start: 11 @28637 has 186 MA's), (39, 28862), (43, 28889), (48, 28931), (51, 28943), (53, 28955),

Gene: Moldemort\_30 Start: 28292, Stop: 28720, Start Num: 11

Candidate Starts for Moldemort\_30:

(Start: 11 @28292 has 186 MA's), (39, 28517), (43, 28544), (48, 28586), (51, 28598), (53, 28610),

Gene: MollyToe\_29 Start: 28721, Stop: 29149, Start Num: 11

Candidate Starts for MollyToe\_29:

(Start: 11 @28721 has 186 MA's), (39, 28946), (43, 28973), (48, 29015), (51, 29027), (53, 29039),

Gene: MooMoo\_21 Start: 23416, Stop: 23847, Start Num: 11

Candidate Starts for MooMoo\_21:

(3, 23311), (6, 23377), (Start: 11 @23416 has 186 MA's), (31, 23560), (41, 23647), (43, 23668), (48, 23710), (53, 23734), (54, 23746), (56, 23773), (58, 23779), (67, 23839),

Gene: Moosehead\_26 Start: 21145, Stop: 21585, Start Num: 10

Candidate Starts for Moosehead\_26:

(Start: 10 @21145 has 3 MA's), (16, 21175), (27, 21232), (47, 21445), (48, 21448), (62, 21547),

Gene: Mosby\_28 Start: 28054, Stop: 28482, Start Num: 11

Candidate Starts for Mosby\_28:

(Start: 11 @28054 has 186 MA's), (39, 28279), (43, 28306), (48, 28348), (51, 28360), (53, 28372),

Gene: Murica\_28 Start: 28534, Stop: 28962, Start Num: 11

Candidate Starts for Murica\_28:

(Start: 11 @28534 has 186 MA's), (39, 28759), (43, 28786), (48, 28828), (51, 28840), (53, 28852),

Gene: Murphy\_30 Start: 28529, Stop: 28957, Start Num: 11

Candidate Starts for Murphy\_30:

(Start: 11 @28529 has 186 MA's), (39, 28754), (43, 28781), (48, 28823), (51, 28835), (53, 28847),

Gene: Myrale\_29 Start: 28412, Stop: 28840, Start Num: 11

Candidate Starts for Myrale\_29:

(Start: 11 @28412 has 186 MA's), (34, 28601), (39, 28637), (43, 28664), (48, 28706), (53, 28730), (60, 28799),

Gene: Nala\_29 Start: 28568, Stop: 28996, Start Num: 11

Candidate Starts for Nala\_29:

(1, 28397), (Start: 11 @28568 has 186 MA's), (39, 28793), (43, 28820), (48, 28862), (51, 28874), (53, 28886),

Gene: NelitzaMV\_29 Start: 28617, Stop: 29045, Start Num: 11

Candidate Starts for NelitzaMV\_29:

(Start: 11 @28617 has 186 MA's), (34, 28806), (39, 28842), (43, 28869), (48, 28911), (53, 28935), (60, 29004),

Gene: Nibley\_34 Start: 32756, Stop: 33187, Start Num: 11

Candidate Starts for Nibley\_34:

(Start: 11 @32756 has 186 MA's), (14, 32777), (Start: 18 @32798 has 1 MA's), (32, 32912), (39, 32981), (41, 32987), (43, 33008), (48, 33050), (49, 33053), (53, 33074), (56, 33113), (59, 33137),

Gene: Nimrod\_29 Start: 28792, Stop: 29220, Start Num: 11

Candidate Starts for Nimrod\_29:

(Start: 11 @28792 has 186 MA's), (39, 29017), (43, 29044), (48, 29086), (51, 29098), (53, 29110),

Gene: NoShow\_24 Start: 22544, Stop: 22975, Start Num: 11

Candidate Starts for NoShow\_24:

(Start: 11 @22544 has 186 MA's), (17, 22580), (19, 22586), (34, 22733), (45, 22805), (46, 22838),

Gene: NoSleep\_30 Start: 28289, Stop: 28717, Start Num: 11

Candidate Starts for NoSleep\_30:

(Start: 11 @28289 has 186 MA's), (39, 28514), (43, 28541), (48, 28583), (51, 28595), (53, 28607),

Gene: NonchalantPear\_29 Start: 28242, Stop: 28670, Start Num: 11

Candidate Starts for NonchalantPear\_29:

(Start: 11 @28242 has 186 MA's), (39, 28467), (43, 28494), (48, 28536), (51, 28548), (53, 28560),

Gene: Ogopogo\_24 Start: 24068, Stop: 24499, Start Num: 11

Candidate Starts for Ogopogo\_24:

(Start: 11 @24068 has 186 MA's), (Start: 18 @24110 has 1 MA's), (32, 24224), (39, 24293), (41, 24299), (43, 24320), (48, 24362), (53, 24386), (56, 24425), (58, 24431),

Gene: Onyinye\_40 Start: 29649, Stop: 30089, Start Num: 11

Candidate Starts for Onyinye\_40:

(Start: 11 @29649 has 186 MA's), (21, 29694), (25, 29730), (28, 29739), (52, 29967), (55, 29988), (66, 30075), (68, 30081),

Gene: Onyinye\_44 Start: 34181, Stop: 34615, Start Num: 11

Candidate Starts for Onyinye\_44:

(Start: 11 @34181 has 186 MA's), (19, 34220), (22, 34235), (24, 34253), (35, 34376), (50, 34481), (63, 34592),

Gene: Orchid\_37 Start: 38736, Stop: 39173, Start Num: 11

Candidate Starts for Orchid\_37:

(Start: 11 @38736 has 186 MA's), (27, 38823), (33, 38895), (36, 38937), (44, 38991), (48, 39030),

Gene: OrionPax\_30 Start: 28295, Stop: 28723, Start Num: 11

Candidate Starts for OrionPax\_30:

(Start: 11 @28295 has 186 MA's), (39, 28520), (43, 28547), (48, 28589), (51, 28601), (53, 28613),

Gene: PaddyBaddy\_30 Start: 28305, Stop: 28733, Start Num: 11

Candidate Starts for PaddyBaddy\_30:

(Start: 11 @28305 has 186 MA's), (39, 28530), (43, 28557), (48, 28599), (51, 28611), (53, 28623),

Gene: Palpatine\_29 Start: 28564, Stop: 28992, Start Num: 11

Candidate Starts for Palpatine\_29:

(Start: 11 @28564 has 186 MA's), (39, 28789), (43, 28816), (48, 28858), (51, 28870), (53, 28882),

Gene: Paperbeatsrock\_31 Start: 29530, Stop: 29958, Start Num: 11

Candidate Starts for Paperbeatsrock\_31:

(Start: 11 @29530 has 186 MA's), (39, 29755), (43, 29782), (48, 29824), (51, 29836), (53, 29848),

Gene: Pat3\_28 Start: 27276, Stop: 27704, Start Num: 11

Candidate Starts for Pat3\_28:

(Start: 11 @27276 has 186 MA's), (39, 27501), (43, 27528), (48, 27570), (51, 27582), (53, 27594),

Gene: PatrickStar\_38 Start: 38735, Stop: 39172, Start Num: 11

Candidate Starts for PatrickStar\_38:

(Start: 11 @38735 has 186 MA's), (27, 38822), (33, 38894), (36, 38936), (44, 38990), (48, 39029),

Gene: Petra64142\_31 Start: 29010, Stop: 29438, Start Num: 11

Candidate Starts for Petra64142\_31:

(Start: 11 @29010 has 186 MA's), (39, 29235), (43, 29262), (48, 29304), (51, 29316), (53, 29328),

Gene: Phaja\_29 Start: 28725, Stop: 29153, Start Num: 11

Candidate Starts for Phaja\_29:

(3, 28617), (Start: 11 @28725 has 186 MA's), (34, 28914), (39, 28950), (43, 28977), (48, 29019), (53, 29043), (60, 29112),

Gene: Phanphagia\_21 Start: 23774, Stop: 24211, Start Num: 11

Candidate Starts for Phanphagia\_21:

(Start: 11 @23774 has 186 MA's), (Start: 18 @23816 has 1 MA's), (31, 23918), (36, 23975), (39, 23999), (41, 24005), (43, 24026), (49, 24071), (56, 24137),

Gene: Pharsalus\_30 Start: 29330, Stop: 29758, Start Num: 11

Candidate Starts for Pharsalus\_30:

(Start: 11 @29330 has 186 MA's), (39, 29555), (43, 29582), (48, 29624), (51, 29636), (53, 29648),

Gene: PhatBacter\_29 Start: 28578, Stop: 29006, Start Num: 11

Candidate Starts for PhatBacter\_29:

(Start: 11 @28578 has 186 MA's), (39, 28803), (43, 28830), (48, 28872), (51, 28884), (53, 28896),

Gene: Phaux\_28 Start: 28576, Stop: 29004, Start Num: 11

Candidate Starts for Phaux\_28:

(Start: 11 @28576 has 186 MA's), (39, 28801), (43, 28828), (48, 28870), (51, 28882), (53, 28894),

Gene: Phendrix\_90 Start: 56293, Stop: 56727, Start Num: 11

Candidate Starts for Phendrix\_90:

(Start: 11 @56293 has 186 MA's), (16, 56323), (20, 56338), (26, 56377), (27, 56380), (30, 56425), (31, 56443), (34, 56485), (48, 56593), (55, 56626), (62, 56689),

Gene: Phrux\_29 Start: 28291, Stop: 28719, Start Num: 11

Candidate Starts for Phrux\_29:

(Start: 11 @28291 has 186 MA's), (39, 28516), (43, 28543), (48, 28585), (51, 28597), (53, 28609),

Gene: Pickett\_25 Start: 20874, Stop: 21314, Start Num: 10

Candidate Starts for Pickett\_25:

(Start: 10 @20874 has 3 MA's), (16, 20904), (27, 20961), (47, 21174), (48, 21177),

Gene: Policronamos\_29 Start: 28576, Stop: 29004, Start Num: 11

Candidate Starts for Policronamos\_29:

(1, 28405), (Start: 11 @28576 has 186 MA's), (34, 28765), (39, 28801), (43, 28828), (47, 28867), (48, 28870), (53, 28894), (60, 28963),

Gene: Pollywog\_24 Start: 24938, Stop: 25369, Start Num: 11

Candidate Starts for Pollywog\_24:

(Start: 11 @24938 has 186 MA's), (Start: 18 @24980 has 1 MA's), (31, 25082), (32, 25094), (39, 25163), (41, 25169), (43, 25190), (48, 25232), (53, 25256), (56, 25295), (58, 25301),

Gene: Porcelain\_38 Start: 33919, Stop: 34350, Start Num: 11

Candidate Starts for Porcelain\_38:

(Start: 11 @33919 has 186 MA's), (Start: 18 @33961 has 1 MA's), (31, 34063), (32, 34075), (34, 34108), (39, 34144), (41, 34150), (43, 34171), (49, 34216), (54, 34249), (56, 34276), (58, 34282),

Gene: Porky\_29 Start: 28387, Stop: 28815, Start Num: 11

Candidate Starts for Porky\_29:

(Start: 11 @28387 has 186 MA's), (39, 28612), (43, 28639), (48, 28681), (51, 28693), (53, 28705),

Gene: Ptowny\_30 Start: 27932, Stop: 28360, Start Num: 11

Candidate Starts for Ptowny\_30:

(Start: 11 @27932 has 186 MA's), (39, 28157), (43, 28184), (48, 28226), (51, 28238), (53, 28250),

Gene: Pumpkin\_31 Start: 28627, Stop: 29055, Start Num: 11

Candidate Starts for Pumpkin\_31:

(Start: 11 @28627 has 186 MA's), (39, 28852), (43, 28879), (48, 28921), (51, 28933), (53, 28945),

Gene: Quallification\_30 Start: 28756, Stop: 29184, Start Num: 11

Candidate Starts for Quallification\_30:

(Start: 11 @28756 has 186 MA's), (39, 28981), (43, 29008), (48, 29050), (51, 29062), (53, 29074),

Gene: REQ3\_58 Start: 37388, Stop: 37825, Start Num: 11

Candidate Starts for REQ3\_58:

(Start: 11 @37388 has 186 MA's), (21, 37433), (26, 37472), (27, 37475), (32, 37544), (65, 37811),

Gene: Rakim\_30 Start: 28655, Stop: 29083, Start Num: 11

Candidate Starts for Rakim\_30:

(Start: 11 @28655 has 186 MA's), (34, 28844), (39, 28880), (43, 28907), (48, 28949), (53, 28973), (60, 29042),

Gene: Renaud18\_23 Start: 24145, Stop: 24582, Start Num: 11

Candidate Starts for Renaud18\_23:

(Start: 8 @24133 has 1 MA's), (Start: 11 @24145 has 186 MA's), (Start: 18 @24187 has 1 MA's), (32, 24301), (39, 24370), (41, 24376), (43, 24397), (48, 24439), (53, 24463), (56, 24508), (59, 24532), (64, 24565), (67, 24574),

Gene: Rimmer\_28 Start: 28116, Stop: 28544, Start Num: 11

Candidate Starts for Rimmer\_28:

(Start: 11 @28116 has 186 MA's), (39, 28341), (43, 28368), (48, 28410), (51, 28422), (53, 28434),

Gene: RiverMonster\_29 Start: 28305, Stop: 28733, Start Num: 11

Candidate Starts for RiverMonster\_29:

(Start: 11 @28305 has 186 MA's), (39, 28530), (43, 28557), (48, 28599), (51, 28611), (53, 28623),

Gene: RobinSparkles\_40 Start: 39653, Stop: 40090, Start Num: 11

Candidate Starts for RobinSparkles\_40:

(Start: 11 @39653 has 186 MA's), (19, 39695), (26, 39737), (27, 39740), (44, 39908), (48, 39947),

Gene: Ronaldo\_61 Start: 32718, Stop: 33149, Start Num: 11

Candidate Starts for Ronaldo\_61:

(Start: 11 @32718 has 186 MA's), (19, 32760), (27, 32805), (40, 32943), (42, 32949),

Gene: Saints25\_30 Start: 28208, Stop: 28636, Start Num: 11

Candidate Starts for Saints25\_30:

(Start: 11 @28208 has 186 MA's), (39, 28433), (43, 28460), (48, 28502), (51, 28514), (53, 28526),

Gene: Sassay\_28 Start: 28054, Stop: 28482, Start Num: 11

Candidate Starts for Sassay\_28:

(Start: 11 @28054 has 186 MA's), (39, 28279), (43, 28306), (48, 28348), (51, 28360), (53, 28372),

Gene: Shaboozey\_33 Start: 32243, Stop: 32674, Start Num: 11

Candidate Starts for Shaboozey\_33:

(Start: 11 @32243 has 186 MA's), (14, 32264), (Start: 18 @32285 has 1 MA's), (32, 32399), (39, 32468), (41, 32474), (43, 32495), (48, 32537), (49, 32540), (53, 32561), (56, 32600), (59, 32624),

Gene: ShamWow\_29 Start: 28549, Stop: 28977, Start Num: 11

Candidate Starts for ShamWow\_29:

(3, 28441), (Start: 11 @28549 has 186 MA's), (34, 28738), (39, 28774), (43, 28801), (48, 28843), (53, 28867), (60, 28936),

Gene: Shauna1\_21 Start: 23777, Stop: 24214, Start Num: 11

Candidate Starts for Shauna1\_21:

(Start: 11 @23777 has 186 MA's), (Start: 18 @23819 has 1 MA's), (31, 23921), (36, 23978), (39, 24002), (41, 24008), (43, 24029), (49, 24074), (56, 24140),

Gene: ShereKhan\_31 Start: 29533, Stop: 29961, Start Num: 11

Candidate Starts for ShereKhan\_31:

(Start: 11 @29533 has 186 MA's), (39, 29758), (43, 29785), (48, 29827), (51, 29839), (53, 29851),

Gene: ShroomBoi\_21 Start: 23747, Stop: 24178, Start Num: 11

Candidate Starts for ShroomBoi\_21:

(Start: 11 @23747 has 186 MA's), (14, 23768), (Start: 18 @23789 has 1 MA's), (26, 23834), (31, 23891), (39, 23972), (54, 24077), (56, 24104), (64, 24161),

Gene: Simpliphy\_30 Start: 28295, Stop: 28723, Start Num: 11

Candidate Starts for Simpliphy\_30:

(Start: 11 @28295 has 186 MA's), (39, 28520), (43, 28547), (48, 28589), (51, 28601), (53, 28613),

Gene: SirDuracell\_28 Start: 27214, Stop: 27642, Start Num: 11

Candidate Starts for SirDuracell\_28:

(Start: 11 @27214 has 186 MA's), (34, 27403), (39, 27439), (43, 27466), (48, 27508), (53, 27532), (60, 27601),

Gene: Sixama\_104 Start: 63936, Stop: 64373, Start Num: 11

Candidate Starts for Sixama\_104:

(Start: 11 @63936 has 186 MA's), (27, 64023), (55, 64272),

Gene: SophKB\_29 Start: 28549, Stop: 28977, Start Num: 11

Candidate Starts for SophKB\_29:

(Start: 11 @28549 has 186 MA's), (39, 28774), (43, 28801), (48, 28843), (51, 28855), (53, 28867),

Gene: Sotrice96\_29 Start: 28503, Stop: 28931, Start Num: 11

Candidate Starts for Sotrice96\_29:

(Start: 11 @28503 has 186 MA's), (34, 28692), (39, 28728), (43, 28755), (48, 28797), (53, 28821), (60, 28890),

Gene: Soul22\_27 Start: 23516, Stop: 23911, Start Num: 18

Candidate Starts for Soul22\_27:

(Start: 11 @23474 has 186 MA's), (Start: 18 @23516 has 1 MA's), (31, 23618), (32, 23630), (39, 23699), (41, 23705), (43, 23726), (48, 23768), (53, 23792), (56, 23837), (59, 23861), (64, 23894), (67, 23903),

Gene: Squint\_38 Start: 34038, Stop: 34469, Start Num: 11

Candidate Starts for Squint\_38:

(Start: 11 @34038 has 186 MA's), (Start: 18 @34080 has 1 MA's), (31, 34182), (32, 34194), (34, 34227), (39, 34263), (41, 34269), (43, 34290), (49, 34335), (54, 34368), (56, 34395), (58, 34401),

Gene: Stank\_32 Start: 29056, Stop: 29484, Start Num: 11

Candidate Starts for Stank\_32:

(Start: 11 @29056 has 186 MA's), (39, 29281), (43, 29308), (48, 29350), (51, 29362), (53, 29374),

Gene: Stark\_30 Start: 28308, Stop: 28736, Start Num: 11

Candidate Starts for Stark\_30:

(Start: 11 @28308 has 186 MA's), (39, 28533), (43, 28560), (48, 28602), (51, 28614), (53, 28626),

Gene: StellaBean\_29 Start: 28549, Stop: 28977, Start Num: 11

Candidate Starts for StellaBean\_29:

(Start: 11 @28549 has 186 MA's), (39, 28774), (43, 28801), (48, 28843), (51, 28855), (53, 28867),

Gene: StolenFromERC\_31 Start: 28540, Stop: 28968, Start Num: 11

Candidate Starts for StolenFromERC\_31:

(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: StormChicken\_29 Start: 28724, Stop: 29152, Start Num: 11

Candidate Starts for StormChicken\_29:

(Start: 11 @28724 has 186 MA's), (39, 28949), (43, 28976), (48, 29018), (51, 29030), (53, 29042),

Gene: Superphikiman\_39 Start: 34101, Stop: 34532, Start Num: 11

Candidate Starts for Superphikiman\_39:

(Start: 11 @34101 has 186 MA's), (Start: 18 @34143 has 1 MA's), (31, 34245), (32, 34257), (34, 34290), (39, 34326), (41, 34332), (43, 34353), (49, 34398), (54, 34431), (56, 34458), (58, 34464),

Gene: TBrady12\_31 Start: 28540, Stop: 28968, Start Num: 11

Candidate Starts for TBrady12\_31:

(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: TChen\_21 Start: 24250, Stop: 24681, Start Num: 11

Candidate Starts for TChen\_21:

(Start: 11 @24250 has 186 MA's), (Start: 18 @24292 has 1 MA's), (31, 24394), (32, 24406), (39, 24475), (41, 24481), (43, 24502), (48, 24544), (53, 24568), (56, 24607), (58, 24613),

Gene: TPA4\_27 Start: 25382, Stop: 25834, Start Num: 11

Candidate Starts for TPA4\_27:

(Start: 11 @25382 has 186 MA's), (29, 25487), (32, 25538), (35, 25574), (37, 25589), (44, 25637), (65, 25820), (67, 25826),

Gene: Tarkin\_31 Start: 29539, Stop: 29967, Start Num: 11

Candidate Starts for Tarkin\_31:

(Start: 11 @29539 has 186 MA's), (39, 29764), (43, 29791), (48, 29833), (51, 29845), (53, 29857),

Gene: TeamEdward\_29 Start: 28721, Stop: 29149, Start Num: 11

Candidate Starts for TeamEdward\_29:

(Start: 11 @28721 has 186 MA's), (39, 28946), (43, 28973), (48, 29015), (51, 29027), (53, 29039),

Gene: TeardropMSU\_28 Start: 28449, Stop: 28877, Start Num: 11

Candidate Starts for TeardropMSU\_28:

(Start: 11 @28449 has 186 MA's), (34, 28638), (39, 28674), (43, 28701), (48, 28743), (53, 28767), (60, 28836),

Gene: Teaspoon\_30 Start: 28503, Stop: 28931, Start Num: 11

Candidate Starts for Teaspoon\_30:

(Start: 11 @28503 has 186 MA's), (39, 28728), (43, 28755), (48, 28797), (51, 28809), (53, 28821),

Gene: Terminus\_29 Start: 28637, Stop: 29065, Start Num: 11

Candidate Starts for Terminus\_29:

(Start: 11 @28637 has 186 MA's), (39, 28862), (43, 28889), (48, 28931), (51, 28943), (53, 28955),

Gene: ThetaBob\_23 Start: 24052, Stop: 24495, Start Num: 8

Candidate Starts for ThetaBob\_23:

(7, 24040), (Start: 8 @24052 has 1 MA's), (Start: 11 @24064 has 186 MA's), (Start: 18 @24106 has 1 MA's), (31, 24208), (32, 24220), (39, 24289), (41, 24295), (43, 24316), (48, 24358), (53, 24382), (56, 24421), (58, 24427),

Gene: Thimble\_29 Start: 27500, Stop: 27928, Start Num: 11

Candidate Starts for Thimble\_29:  
(Start: 11 @27500 has 186 MA's), (39, 27725), (43, 27752), (48, 27794), (51, 27806), (53, 27818),

Gene: Thresher\_30 Start: 29304, Stop: 29732, Start Num: 11  
Candidate Starts for Thresher\_30:  
(Start: 11 @29304 has 186 MA's), (39, 29529), (43, 29556), (48, 29598), (51, 29610), (53, 29622),

Gene: Tomaszewski\_28 Start: 28147, Stop: 28575, Start Num: 11  
Candidate Starts for Tomaszewski\_28:  
(Start: 11 @28147 has 186 MA's), (39, 28372), (43, 28399), (48, 28441), (51, 28453), (53, 28465),

Gene: Toto\_29 Start: 28549, Stop: 28977, Start Num: 11  
Candidate Starts for Toto\_29:  
(3, 28441), (Start: 11 @28549 has 186 MA's), (34, 28738), (39, 28774), (43, 28801), (48, 28843), (53, 28867), (60, 28936),

Gene: Traaww1\_27 Start: 28187, Stop: 28615, Start Num: 11  
Candidate Starts for Traaww1\_27:  
(Start: 11 @28187 has 186 MA's), (34, 28376), (39, 28412), (43, 28439), (48, 28481), (53, 28505), (60, 28574),

Gene: Tuco\_30 Start: 29057, Stop: 29485, Start Num: 11  
Candidate Starts for Tuco\_30:  
(Start: 11 @29057 has 186 MA's), (34, 29246), (39, 29282), (43, 29309), (48, 29351), (53, 29375), (60, 29444),

Gene: Ukulele\_29 Start: 28308, Stop: 28736, Start Num: 11  
Candidate Starts for Ukulele\_29:  
(Start: 11 @28308 has 186 MA's), (39, 28533), (43, 28560), (48, 28602), (51, 28614), (53, 28626),

Gene: Vasanti\_26 Start: 21864, Stop: 22304, Start Num: 10  
Candidate Starts for Vasanti\_26:  
(Start: 10 @21864 has 3 MA's), (16, 21894), (27, 21951), (36, 22074), (47, 22164), (48, 22167), (62, 22266),

Gene: Volt\_61 Start: 32951, Stop: 33313, Start Num: 23  
Candidate Starts for Volt\_61:  
(4, 32819), (5, 32822), (9, 32879), (13, 32900), (Start: 23 @32951 has 1 MA's), (40, 33107), (42, 33113),

Gene: Wiggin\_32 Start: 29054, Stop: 29482, Start Num: 11  
Candidate Starts for Wiggin\_32:  
(Start: 11 @29054 has 186 MA's), (39, 29279), (43, 29306), (48, 29348), (51, 29360), (53, 29372),

Gene: Willez\_28 Start: 28054, Stop: 28482, Start Num: 11  
Candidate Starts for Willez\_28:  
(Start: 11 @28054 has 186 MA's), (39, 28279), (43, 28306), (48, 28348), (51, 28360), (53, 28372),

Gene: Xandras\_31 Start: 28540, Stop: 28968, Start Num: 11  
Candidate Starts for Xandras\_31:  
(Start: 11 @28540 has 186 MA's), (39, 28765), (43, 28792), (48, 28834), (51, 28846), (53, 28858),

Gene: YassJohnny\_30 Start: 29065, Stop: 29493, Start Num: 11

Candidate Starts for YassJohnny\_30:

(Start: 11 @29065 has 186 MA's), (39, 29290), (43, 29317), (48, 29359), (51, 29371), (53, 29383),

Gene: Yoshi\_27 Start: 23473, Stop: 23904, Start Num: 11

Candidate Starts for Yoshi\_27:

(Start: 11 @23473 has 186 MA's), (Start: 18 @23515 has 1 MA's), (31, 23617), (32, 23629), (39, 23698), (41, 23704), (43, 23725), (48, 23767), (53, 23791), (56, 23830), (58, 23836),

Gene: Youngblood\_29 Start: 28710, Stop: 29138, Start Num: 11

Candidate Starts for Youngblood\_29:

(1, 28539), (Start: 11 @28710 has 186 MA's), (39, 28935), (43, 28962), (48, 29004), (51, 29016), (53, 29028),

Gene: Zapner\_28 Start: 24167, Stop: 24604, Start Num: 11

Candidate Starts for Zapner\_28:

(Start: 11 @24167 has 186 MA's), (Start: 18 @24209 has 1 MA's), (32, 24323), (39, 24392), (41, 24398), (43, 24419), (48, 24461), (53, 24485), (56, 24530), (59, 24554), (64, 24587), (67, 24596),

Gene: Ziko\_61 Start: 32704, Stop: 33135, Start Num: 11

Candidate Starts for Ziko\_61:

(Start: 11 @32704 has 186 MA's), (19, 32746), (27, 32791), (40, 32929), (42, 32935),

Gene: xkcd\_30 Start: 28719, Stop: 29147, Start Num: 11

Candidate Starts for xkcd\_30:

(Start: 11 @28719 has 186 MA's), (39, 28944), (43, 28971), (48, 29013), (51, 29025), (53, 29037),