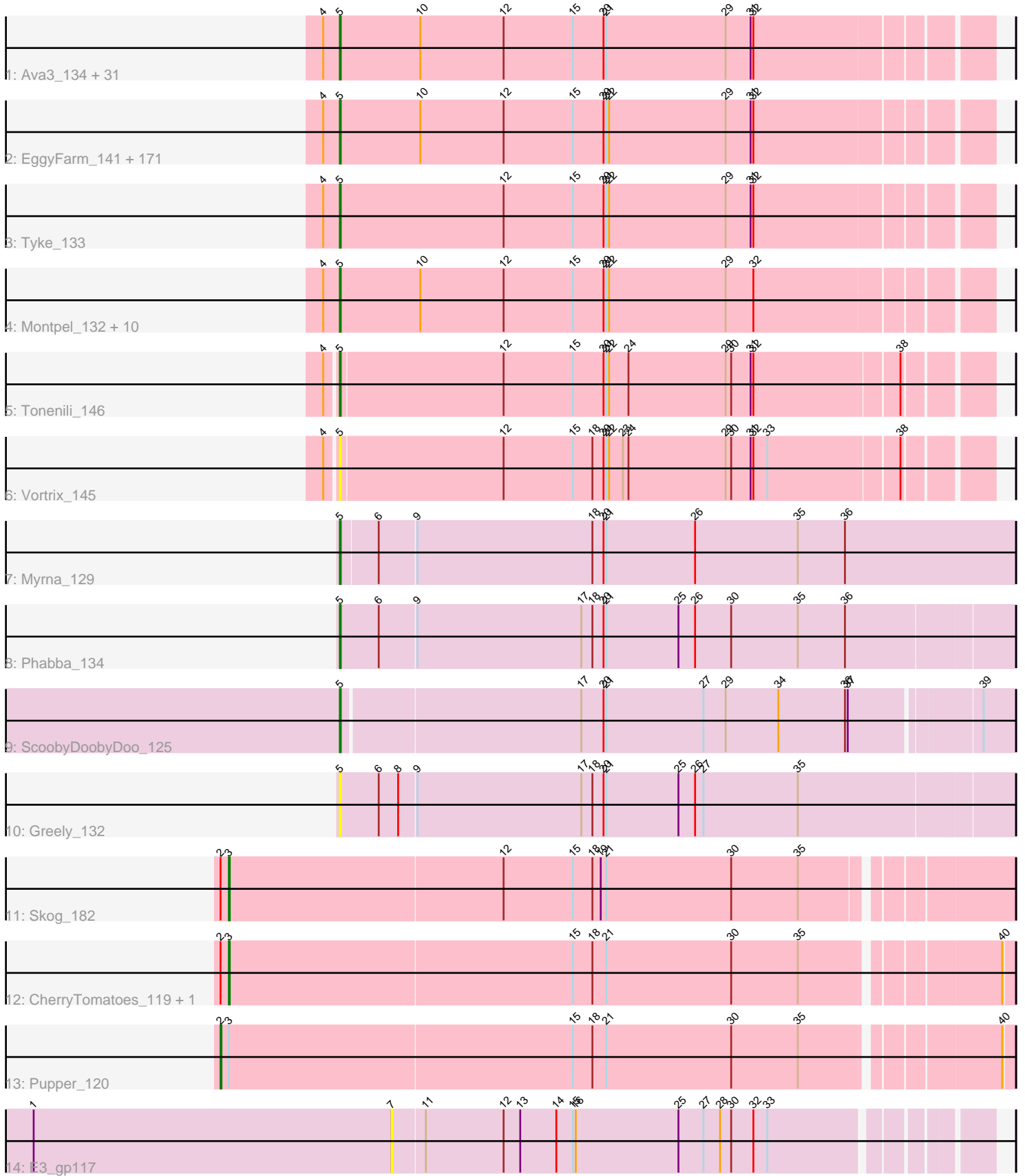


# Pham 308044



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 308044 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308044 has 227 members, 39 are drafts.

Phages represented in each track:

- Track 1 : Ava3\_134, Lee7\_131, Yucca\_132, Iota\_128, Izajani\_133, FudgeTart\_131, Jezreel\_133, FoxtrotP1\_133, DrPhinkDaddy\_132, Maby2021\_133, TinyTim\_133, Ewok\_134, Fongie\_131, ParkTD\_134, Kamryn\_133, Nidhogg\_135, BeanWater\_125, NedWong\_134, OrediggerDelux\_131, Gizmo\_138, Shelob\_135, Bipolarisk\_132, Daffodil\_138, ZygoTaiga\_131, Norm\_134, Zeenon\_134, YemiJoy2021\_134, Bread\_132, Lethe\_131, Salacia\_137, Zalkecks\_134, SrishMeg2525\_132
- Track 2 : EggyFarm\_141, EasyJones\_136, PurduePete\_133, Gabriel\_133, Halldule\_127, Bxz1\_130, BananaFence\_132, Dandelion\_138, Domi\_126, Cleatunium\_126, Pier\_137, Pleione\_136, Chargie21\_130, EmToTheThree\_135, Demodog\_140, Wally\_132, EmmaElysia\_134, Mikro\_130, DirtMonster\_127, Pinkcreek\_124, BackyardAgain\_130, Blubba\_125, DeejaClivia\_120, Trinitium\_131, Gamgam\_134, StephanieG\_131, Cactojaque\_129, Dessert\_131, InigoMontoya\_136, Grungle\_120, Cane17\_125, LinStu\_131, Fixie\_131, Khaleesi\_132, Rizal\_128, Momo\_133, MoMoMixon\_133, LifeSavor\_131, Lukilu\_123, Phlegm\_137, Bangla1971\_134, QBert\_127, Mangeria\_133, ScottMcG\_129, Bigswole\_136, Flabslab\_128, StubbySaigey\_137, Ablatia\_133, YoungMoneyMata\_135, Drazdys\_131, JustHall\_131, Nappy\_135, Rabinovish\_132, Shnickers\_133, Jaygup\_133, Moiqah\_125, JigglyPuff\_141, ET08\_121, Matsumoto\_131, Guwapp\_132, Rahel\_132, Atlantean\_133, ShiaLabeouf\_132, CindyLou\_135, Duckfeet\_127, Adlitam\_134, Bonray\_134, DTDevon\_133, Pivoine\_133, Chomp\_133, IkeLoa\_127, GlutenPhree\_135, BobaPhatt\_128, JulietS\_127, CharlieB\_130, Kboogie\_137, Loanshark\_132, Ronan\_127, Blackbrain\_129, Rocha\_131, ValleyTerrace\_134, ChaylaJr\_129, Caravan\_127, Jessibeth14\_132, Sebata\_133, Yassified\_130, Alice\_126, McWolfish\_131, NuevoMundo\_138, Morizzled23\_134, Erdmann\_133, Stubby\_126, Willis\_134, Pio\_137, Spec\_129, Roots515\_132, Pupusa\_139, Grasshills\_140, Amataga\_134, BigCity\_141, SoilZilla\_129, Tainan\_136, PharkleMinkus\_137, Spud\_132, Bezza\_122, Littleton\_133, Ghost\_132, NoodleTree\_140, Burrough\_133, JPickles\_130, LolaVinca\_133, Shrimp\_133, Ading\_133, Patter\_134, Darko\_133, Dietrick\_125, Cali\_128, SilverDipper\_135, Basquiat\_130, Fludd\_134, Capablanca\_136, Naval22\_141, Babyland\_135, Koguma\_130, LordLeafolot\_137, Latch\_134, Concombre\_139, Derek\_132, Colt\_125, HyRo\_124, Moby\_126, BadAgartude\_129, ChickenPhender\_129, I3\_138, Janiyra\_136, Jemmno\_133, Shifa\_122, Breeniome\_132, MikeLiesIn\_134, Sauce\_133, Napoleon13\_129, LRRHood\_126, Naija\_133, Audrick\_136, Ngannou\_130, RoMag\_128, SVoro\_131, SmallFry\_133, Megamind\_132, Delilah\_133, ArcherS7\_132, Catera\_129, Blackdragon\_129, Melpomini\_127, Quasimodo\_135, Essence\_130, Shaqnato\_126, JayJay\_138, Belieber\_129,

Turret\_129, Sprinklers\_129, McGee\_135, Substance289\_131, LookingGlass\_133, Phusco\_133, ErnieJ\_127, Asterius\_136, FrayBell\_138, Tortoise16\_130, Jedediah\_136, Delylah\_136, Phox\_130

- Track 3 : Tyke\_133
- Track 4 : Montpel\_132, Astraea\_129, Primadonna\_127, Issimir\_131, Specks\_138, Lunareta\_132, Bowman\_130, Labradorite\_132, Teardrop\_132, InterFolia\_139, Maturis\_131
- Track 5 : Tonenili\_146
- Track 6 : Vortex\_145
- Track 7 : Myrna\_129
- Track 8 : Phabba\_134
- Track 9 : ScoobyDoobyDoo\_125
- Track 10 : Greely\_132
- Track 11 : Skog\_182
- Track 12 : CherryTomatoes\_119, SCentae\_119
- Track 13 : Pupper\_120
- Track 14 : E3\_gp117

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

The start number called the most often in the published annotations is 5, it was called in 184 of the 188 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_133, Ading\_133, Adlitam\_134, Alice\_126, Amataga\_134, ArcherS7\_132, Asterius\_136, Astraea\_129, Atlantean\_133, Audrick\_136, Ava3\_134, Babyland\_135, BackyardAgain\_130, BadAgartude\_129, BananaFence\_132, Bangla1971\_134, Basquiat\_130, BeanWater\_125, Belieber\_129, Bezza\_122, BigCity\_141, Bigswole\_136, Bipolarisk\_132, Blackbrain\_129, Blackdragon\_129, Blubba\_125, BobaPhatt\_128, Bonray\_134, Bowman\_130, Bread\_132, Breeniome\_132, Burrough\_133, Bxz1\_130, Cactojaque\_129, Cali\_128, Cane17\_125, Capablanca\_136, Caravan\_127, Catera\_129, Chargie21\_130, CharlieB\_130, ChaylaJr\_129, ChickenPhender\_129, Chomp\_133, CindyLou\_135, Cleatunium\_126, Colt\_125, Concombre\_139, DTDevon\_133, Daffodil\_138, Dandelion\_138, Darko\_133, DeejaClivia\_120, Delilah\_133, Delylah\_136, Demodog\_140, Derek\_132, Dessert\_131, Dietrick\_125, DirtMonster\_127, Domi\_126, DrPhinkDaddy\_132, Drazdys\_131, Duckfeet\_127, ET08\_121, EasyJones\_136, EggFarm\_141, EmToTheThree\_135, EmmaElysia\_134, Erdmann\_133, ErnieJ\_127, Essence\_130, Ewok\_134, Fixie\_131, Flabslab\_128, Fludd\_134, Fongie\_131, FoxtrotP1\_133, FrayBell\_138, FudgeTart\_131, Gabriel\_133, Gangam\_134, Ghost\_132, Gizmo\_138, GlutenPhree\_135, Grasshills\_140, Greely\_132, Grungle\_120, Guwapp\_132, Halldule\_127, HyRo\_124, I3\_138, IkeLoa\_127, InigoMontoya\_136, InterFolia\_139, Iota\_128, Issimir\_131, Izajani\_133, JPickles\_130, Janiyra\_136, JayJay\_138, Jaygup\_133, Jedediah\_136, Jemmno\_133, Jessibeth14\_132, Jezreel\_133, JigglyPuff\_141, JulietS\_127, JustHall\_131, Kamryn\_133, Kboogie\_137, Khaleesi\_132, Koguma\_130, LRRHood\_126, Labradorite\_132, Latch\_134, Lee7\_131, Lethe\_131, LifeSavor\_131, LinStu\_131, Littleton\_133, Loanshark\_132, LolaVinca\_133, LookingGlass\_133, LordLeafolot\_137, Lukilu\_123, Lunareta\_132, Maby2021\_133, Mangeria\_133, Matsumoto\_131, Maturis\_131, McGee\_135, McWolfish\_131, Megamind\_132, Melpomini\_127, MikeLiesIn\_134, Mikro\_130,

MoMoMixon\_133, Moby\_126, Moiqah\_125, Momo\_133, Montpel\_132, Morizzled23\_134, Myrna\_129, Naija\_133, Napoleon13\_129, Nappy\_135, Naval22\_141, NedWong\_134, Ngannou\_130, Nidhogg\_135, NoodleTree\_140, Norm\_134, NuevoMundo\_138, OrediggerDelux\_131, ParkTD\_134, Patter\_134, Phabba\_134, PharkleMinkus\_137, Phlegm\_137, Phox\_130, Phusco\_133, Pier\_137, Pinkcreek\_124, Pio\_137, Pivoine\_133, Pleione\_136, Primadonna\_127, Pupusa\_139, PurduePete\_133, QBert\_127, Quasimodo\_135, Rabinovish\_132, Rahel\_132, Rizal\_128, RoMag\_128, Rocha\_131, Ronan\_127, Roots515\_132, SVoro\_131, Salacia\_137, Sauce\_133, ScoobyDoobyDoo\_125, ScottMcG\_129, Sebata\_133, Shaqato\_126, Shelob\_135, ShiaLabeouf\_132, Shifa\_122, Shnickers\_133, Shrimp\_133, SilverDipper\_135, SmallFry\_133, SoilZilla\_129, Spec\_129, Specks\_138, Sprinklers\_129, Spud\_132, SrishMeg2525\_132, StephanieG\_131, StubbySaigey\_137, Stubby\_126, Substance289\_131, Tainan\_136, Teardrop\_132, TinyTim\_133, Tonenili\_146, Tortoise16\_130, Trinitium\_131, Turret\_129, Tyke\_133, ValleyTerrace\_134, Vortrix\_145, Wally\_132, Willis\_134, Yassified\_130, YemiJoy2021\_134, YoungMoneyMata\_135, Yucca\_132, Zalkecks\_134, Zeenon\_134, ZygoTaiga\_131,

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

- 

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

- CherryTomatoes\_119, E3\_gp117, Pupper\_120, SCentae\_119, Skog\_182,

### Summary by start number:

Start 2:

- Found in 4 of 227 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 188
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Pupper\_120 (DO),

Start 3:

- Found in 4 of 227 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 3 of 188
- Called 75.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_119 (DO), SCentae\_119 (DO), Skog\_182 (DO),

Start 5:

- Found in 222 of 227 ( 97.8% ) of genes in pham
- Manual Annotations of this start: 184 of 188
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia\_133 (C1), Ading\_133 (C1), Adlitam\_134 (C1), Alice\_126 (C1), Amataga\_134 (C1), ArcherS7\_132 (C1), Asterius\_136 (C1), Astraea\_129 (C1), Atlantean\_133 (C1), Audrick\_136 (C1), Ava3\_134 (C1), Babyland\_135 (C1), BackyardAgain\_130 (C1), BadAgartude\_129 (C1), BananaFence\_132 (C1), Bangla1971\_134 (C1), Basquiat\_130 (C1), BeanWater\_125 (C1), Belieber\_129 (C1), Bezza\_122 (C1), BigCity\_141 (C1), Bigswole\_136 (C1), Bipolarisk\_132 (C1), Blackbrain\_129 (C1), Blackdragon\_129 (C1), Blubba\_125 (C1), BobaPhatt\_128 (C1), Bonray\_134 (C1), Bowman\_130 (C1), Bread\_132 (C1), Breeniome\_132 (C1), Burrough\_133 (C1), Bxz1\_130 (C1), Cactojaque\_129 (C1), Cali\_128 (C1), Cane17\_125 (C1), Capablanca\_136 (C1),

Caravan\_127 (C1), Catera\_129 (C1), Chargie21\_130 (C1), CharlieB\_130 (C1),  
 ChaylaJr\_129 (C1), ChickenPhender\_129 (C1), Chomp\_133 (C1), CindyLou\_135  
 (C1), Cleatunium\_126 (C1), Colt\_125 (C1), Concombre\_139 (C1), DTDevon\_133  
 (C1), Daffodil\_138 (C1), Dandelion\_138 (C1), Darko\_133 (C1), DeejaClivia\_120 (C1),  
 Delilah\_133 (C1), Delylah\_136 (C1), Demodog\_140 (C1), Derek\_132 (C1),  
 Dessert\_131 (C1), Dietrick\_125 (C1), DirtMonster\_127 (C1), Domi\_126 (C1),  
 DrPhinkDaddy\_132 (C1), Drazdys\_131 (C1), Duckfeet\_127 (C1), ET08\_121 (C1),  
 EasyJones\_136 (C1), EggyFarm\_141 (C1), EmToTheThree\_135 (C1),  
 EmmaElysia\_134 (C1), Erdmann\_133 (C1), ErnieJ\_127 (C1), Essence\_130 (C1),  
 Ewok\_134 (C1), Fixie\_131 (C1), Flabslab\_128 (C1), Fludd\_134 (C1), Fongie\_131  
 (C1), FoxtrotP1\_133 (C1), FrayBell\_138 (C1), FudgeTart\_131 (C1), Gabriel\_133 (C1),  
 Gamgam\_134 (C1), Ghost\_132 (C1), Gizmo\_138 (C1), GlutenPhree\_135 (C1),  
 Grasshills\_140 (C1), Greely\_132 (C2), Grungle\_120 (C1), Guwapp\_132 (C1),  
 Halldule\_127 (C1), HyRo\_124 (C1), I3\_138 (C1), IkeLoa\_127 (C1),  
 InigoMontoya\_136 (C1), InterFolia\_139 (C1), Iota\_128 (C1), Issimir\_131 (C1),  
 Izajani\_133 (C1), JPickles\_130 (C1), Janiyr\_136 (C1), JayJay\_138 (C1),  
 Jaygup\_133 (C1), Jedediah\_136 (C1), Jemmno\_133 (C1), Jessibeth14\_132 (C1),  
 Jezreel\_133 (C1), JigglyPuff\_141 (C1), JulietS\_127 (C1), JustHall\_131 (C1),  
 Kamryn\_133 (C1), Kboogie\_137 (C1), Khaleesi\_132 (C1), Koguma\_130 (C1),  
 LRRHood\_126 (C1), Labradorite\_132 (C1), Latch\_134 (C1), Lee7\_131 (C1),  
 Lethe\_131 (C1), LifeSavor\_131 (C1), LinStu\_131 (C1), Littleton\_133 (C1),  
 Loanshark\_132 (C1), LolaVinca\_133 (C1), LookingGlass\_133 (C1), LordLeafolot\_137  
 (C1), Lukilu\_123 (C1), Lunareta\_132 (C1), Maby2021\_133 (C1), Mangeria\_133 (C1),  
 Matsumoto\_131 (C1), Maturis\_131 (C1), McGee\_135 (C1), McWolfish\_131 (C1),  
 Megamind\_132 (C1), Melpomini\_127 (C1), MikeLiesIn\_134 (C1), Mikro\_130 (C1),  
 MoMoMixon\_133 (C1), Moby\_126 (C1), Moiqah\_125 (C1), Momo\_133 (C1),  
 Montpel\_132 (C1), Morizzled23\_134 (C1), Myrna\_129 (C2), Naija\_133 (C1),  
 Napoleon13\_129 (C1), Nappy\_135 (C1), Naval22\_141 (C1), NedWong\_134 (C1),  
 Ngannou\_130 (C1), Nidhogg\_135 (C1), NoodleTree\_140 (C1), Norm\_134 (C1),  
 NuevoMundo\_138 (C1), OrediggerDelux\_131 (C1), ParkTD\_134 (C1), Patter\_134  
 (C1), Phabba\_134 (C2), PharkleMinkus\_137 (C1), Phlegm\_137 (C1), Phox\_130 (C1),  
 Phusco\_133 (C1), Pier\_137 (C1), Pinkcreek\_124 (C1), Pio\_137 (C1), Pivoine\_133  
 (C1), Pleione\_136 (C1), Primadonna\_127 (C1), Pupusa\_139 (C1), PurduePete\_133  
 (C1), QBert\_127 (C1), Quasimodo\_135 (C1), Rabinovich\_132 (C1), Rahel\_132 (C1),  
 Rizal\_128 (C1), RoMag\_128 (C1), Rocha\_131 (C1), Ronan\_127 (C1), Roots515\_132  
 (C1), SVoro\_131 (C1), Salacia\_137 (C1), Sauce\_133 (C1), ScoobyDoobyDoo\_125  
 (C2), ScottMcG\_129 (C1), Sebata\_133 (C1), Shaqato\_126 (C1), Shelob\_135 (C1),  
 ShiaLabeouf\_132 (C1), Shifa\_122 (C1), Shnickers\_133 (C1), Shrimp\_133 (C1),  
 SilverDipper\_135 (C1), SmallFry\_133 (C1), SoilZilla\_129 (C1), Spec\_129 (C1),  
 Specks\_138 (C1), Sprinklers\_129 (C1), Spud\_132 (C1), SrishMeg2525\_132 (C1),  
 StephanieG\_131 (C1), StubbySaigey\_137 (C1), Stubby\_126 (C1),  
 Substance289\_131 (C1), Tainan\_136 (C1), Teardrop\_132 (C1), TinyTim\_133 (C1),  
 Tonenili\_146 (C1), Tortoise16\_130 (C1), Trinitium\_131 (C1), Turret\_129 (C1),  
 Tyke\_133 (C1), ValleyTerrace\_134 (C1), Vortrix\_145 (C1), Wally\_132 (C1),  
 Willis\_134 (C1), Yassified\_130 (C1), YemiJoy2021\_134 (C1), YoungMoneyMata\_135  
 (C1), Yucca\_132 (C1), Zalkecks\_134 (C1), Zeenon\_134 (C1), ZygoTaiga\_131 (C1),

Start 7:

- Found in 1 of 227 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E3\_gp117 (singleton),

## Summary by clusters:

There are 4 clusters represented in this pham: DO, C1, singleton, C2,

Info for manual annotations of cluster C1:

- Start number 5 was manually annotated 181 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 5 was manually annotated 3 times for cluster C2.

Info for manual annotations of cluster DO:

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

## Gene Information:

Gene: Ablatia\_133 Start: 73853, Stop: 74536, Start Num: 5

Candidate Starts for Ablatia\_133:

(4, 73835), (Start: 5 @73853 has 184 MA's), (10, 73940), (12, 74030), (15, 74105), (20, 74138), (21, 74141), (22, 74144), (29, 74270), (31, 74297), (32, 74300),

Gene: Ading\_133 Start: 73822, Stop: 74505, Start Num: 5

Candidate Starts for Ading\_133:

(4, 73804), (Start: 5 @73822 has 184 MA's), (10, 73909), (12, 73999), (15, 74074), (20, 74107), (21, 74110), (22, 74113), (29, 74239), (31, 74266), (32, 74269),

Gene: Adlitam\_134 Start: 74318, Stop: 75001, Start Num: 5

Candidate Starts for Adlitam\_134:

(4, 74300), (Start: 5 @74318 has 184 MA's), (10, 74405), (12, 74495), (15, 74570), (20, 74603), (21, 74606), (22, 74609), (29, 74735), (31, 74762), (32, 74765),

Gene: Alice\_126 Start: 73543, Stop: 74226, Start Num: 5

Candidate Starts for Alice\_126:

(4, 73525), (Start: 5 @73543 has 184 MA's), (10, 73630), (12, 73720), (15, 73795), (20, 73828), (21, 73831), (22, 73834), (29, 73960), (31, 73987), (32, 73990),

Gene: Amataga\_134 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for Amataga\_134:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: ArcherS7\_132 Start: 73402, Stop: 74085, Start Num: 5

Candidate Starts for ArcherS7\_132:

(4, 73384), (Start: 5 @73402 has 184 MA's), (10, 73489), (12, 73579), (15, 73654), (20, 73687), (21, 73690), (22, 73693), (29, 73819), (31, 73846), (32, 73849),

Gene: Asterius\_136 Start: 74078, Stop: 74761, Start Num: 5

Candidate Starts for Asterius\_136:

(4, 74060), (Start: 5 @74078 has 184 MA's), (10, 74165), (12, 74255), (15, 74330), (20, 74363), (21, 74366), (22, 74369), (29, 74495), (31, 74522), (32, 74525),

Gene: Astraea\_129 Start: 72843, Stop: 73526, Start Num: 5  
Candidate Starts for Astraea\_129:  
(4, 72825), (Start: 5 @72843 has 184 MA's), (10, 72930), (12, 73020), (15, 73095), (20, 73128), (21, 73131), (22, 73134), (29, 73260), (32, 73290),

Gene: Atlantean\_133 Start: 73563, Stop: 74246, Start Num: 5  
Candidate Starts for Atlantean\_133:  
(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Audrick\_136 Start: 73542, Stop: 74225, Start Num: 5  
Candidate Starts for Audrick\_136:  
(4, 73524), (Start: 5 @73542 has 184 MA's), (10, 73629), (12, 73719), (15, 73794), (20, 73827), (21, 73830), (22, 73833), (29, 73959), (31, 73986), (32, 73989),

Gene: Ava3\_134 Start: 73987, Stop: 74670, Start Num: 5  
Candidate Starts for Ava3\_134:  
(4, 73969), (Start: 5 @73987 has 184 MA's), (10, 74074), (12, 74164), (15, 74239), (20, 74272), (21, 74275), (29, 74404), (31, 74431), (32, 74434),

Gene: Babyland\_135 Start: 73641, Stop: 74324, Start Num: 5  
Candidate Starts for Babyland\_135:  
(4, 73623), (Start: 5 @73641 has 184 MA's), (10, 73728), (12, 73818), (15, 73893), (20, 73926), (21, 73929), (22, 73932), (29, 74058), (31, 74085), (32, 74088),

Gene: BackyardAgain\_130 Start: 72990, Stop: 73673, Start Num: 5  
Candidate Starts for BackyardAgain\_130:  
(4, 72972), (Start: 5 @72990 has 184 MA's), (10, 73077), (12, 73167), (15, 73242), (20, 73275), (21, 73278), (22, 73281), (29, 73407), (31, 73434), (32, 73437),

Gene: BadAgartude\_129 Start: 74289, Stop: 74972, Start Num: 5  
Candidate Starts for BadAgartude\_129:  
(4, 74271), (Start: 5 @74289 has 184 MA's), (10, 74376), (12, 74466), (15, 74541), (20, 74574), (21, 74577), (22, 74580), (29, 74706), (31, 74733), (32, 74736),

Gene: BananaFence\_132 Start: 74243, Stop: 74926, Start Num: 5  
Candidate Starts for BananaFence\_132:  
(4, 74225), (Start: 5 @74243 has 184 MA's), (10, 74330), (12, 74420), (15, 74495), (20, 74528), (21, 74531), (22, 74534), (29, 74660), (31, 74687), (32, 74690),

Gene: Bangla1971\_134 Start: 73532, Stop: 74215, Start Num: 5  
Candidate Starts for Bangla1971\_134:  
(4, 73514), (Start: 5 @73532 has 184 MA's), (10, 73619), (12, 73709), (15, 73784), (20, 73817), (21, 73820), (22, 73823), (29, 73949), (31, 73976), (32, 73979),

Gene: Basquiat\_130 Start: 73141, Stop: 73824, Start Num: 5  
Candidate Starts for Basquiat\_130:  
(4, 73123), (Start: 5 @73141 has 184 MA's), (10, 73228), (12, 73318), (15, 73393), (20, 73426), (21, 73429), (22, 73432), (29, 73558), (31, 73585), (32, 73588),

Gene: BeanWater\_125 Start: 73841, Stop: 74524, Start Num: 5  
Candidate Starts for BeanWater\_125:

(4, 73823), (Start: 5 @73841 has 184 MA's), (10, 73928), (12, 74018), (15, 74093), (20, 74126), (21, 74129), (29, 74258), (31, 74285), (32, 74288),

Gene: Belieber\_129 Start: 73316, Stop: 73999, Start Num: 5

Candidate Starts for Belieber\_129:

(4, 73298), (Start: 5 @73316 has 184 MA's), (10, 73403), (12, 73493), (15, 73568), (20, 73601), (21, 73604), (22, 73607), (29, 73733), (31, 73760), (32, 73763),

Gene: Bezza\_122 Start: 73899, Stop: 74582, Start Num: 5

Candidate Starts for Bezza\_122:

(4, 73881), (Start: 5 @73899 has 184 MA's), (10, 73986), (12, 74076), (15, 74151), (20, 74184), (21, 74187), (22, 74190), (29, 74316), (31, 74343), (32, 74346),

Gene: BigCity\_141 Start: 76513, Stop: 77196, Start Num: 5

Candidate Starts for BigCity\_141:

(4, 76495), (Start: 5 @76513 has 184 MA's), (10, 76600), (12, 76690), (15, 76765), (20, 76798), (21, 76801), (22, 76804), (29, 76930), (31, 76957), (32, 76960),

Gene: Bigswole\_136 Start: 75798, Stop: 76481, Start Num: 5

Candidate Starts for Bigswole\_136:

(4, 75780), (Start: 5 @75798 has 184 MA's), (10, 75885), (12, 75975), (15, 76050), (20, 76083), (21, 76086), (22, 76089), (29, 76215), (31, 76242), (32, 76245),

Gene: Bipolarisk\_132 Start: 74255, Stop: 74938, Start Num: 5

Candidate Starts for Bipolarisk\_132:

(4, 74237), (Start: 5 @74255 has 184 MA's), (10, 74342), (12, 74432), (15, 74507), (20, 74540), (21, 74543), (29, 74672), (31, 74699), (32, 74702),

Gene: Blackbrain\_129 Start: 73026, Stop: 73709, Start Num: 5

Candidate Starts for Blackbrain\_129:

(4, 73008), (Start: 5 @73026 has 184 MA's), (10, 73113), (12, 73203), (15, 73278), (20, 73311), (21, 73314), (22, 73317), (29, 73443), (31, 73470), (32, 73473),

Gene: Blackdragon\_129 Start: 73670, Stop: 74353, Start Num: 5

Candidate Starts for Blackdragon\_129:

(4, 73652), (Start: 5 @73670 has 184 MA's), (10, 73757), (12, 73847), (15, 73922), (20, 73955), (21, 73958), (22, 73961), (29, 74087), (31, 74114), (32, 74117),

Gene: Blubba\_125 Start: 75388, Stop: 76071, Start Num: 5

Candidate Starts for Blubba\_125:

(4, 75370), (Start: 5 @75388 has 184 MA's), (10, 75475), (12, 75565), (15, 75640), (20, 75673), (21, 75676), (22, 75679), (29, 75805), (31, 75832), (32, 75835),

Gene: BobaPhatt\_128 Start: 72605, Stop: 73288, Start Num: 5

Candidate Starts for BobaPhatt\_128:

(4, 72587), (Start: 5 @72605 has 184 MA's), (10, 72692), (12, 72782), (15, 72857), (20, 72890), (21, 72893), (22, 72896), (29, 73022), (31, 73049), (32, 73052),

Gene: Bonray\_134 Start: 74897, Stop: 75580, Start Num: 5

Candidate Starts for Bonray\_134:

(4, 74879), (Start: 5 @74897 has 184 MA's), (10, 74984), (12, 75074), (15, 75149), (20, 75182), (21, 75185), (22, 75188), (29, 75314), (31, 75341), (32, 75344),

Gene: Bowman\_130 Start: 73979, Stop: 74662, Start Num: 5

Candidate Starts for Bowman\_130:

(4, 73961), (Start: 5 @73979 has 184 MA's), (10, 74066), (12, 74156), (15, 74231), (20, 74264), (21, 74267), (22, 74270), (29, 74396), (32, 74426),

Gene: Bread\_132 Start: 74073, Stop: 74756, Start Num: 5

Candidate Starts for Bread\_132:

(4, 74055), (Start: 5 @74073 has 184 MA's), (10, 74160), (12, 74250), (15, 74325), (20, 74358), (21, 74361), (29, 74490), (31, 74517), (32, 74520),

Gene: Breeniome\_132 Start: 72431, Stop: 73114, Start Num: 5

Candidate Starts for Breeniome\_132:

(4, 72413), (Start: 5 @72431 has 184 MA's), (10, 72518), (12, 72608), (15, 72683), (20, 72716), (21, 72719), (22, 72722), (29, 72848), (31, 72875), (32, 72878),

Gene: Burrough\_133 Start: 74582, Stop: 75265, Start Num: 5

Candidate Starts for Burrough\_133:

(4, 74564), (Start: 5 @74582 has 184 MA's), (10, 74669), (12, 74759), (15, 74834), (20, 74867), (21, 74870), (22, 74873), (29, 74999), (31, 75026), (32, 75029),

Gene: Bxz1\_130 Start: 75785, Stop: 76468, Start Num: 5

Candidate Starts for Bxz1\_130:

(4, 75767), (Start: 5 @75785 has 184 MA's), (10, 75872), (12, 75962), (15, 76037), (20, 76070), (21, 76073), (22, 76076), (29, 76202), (31, 76229), (32, 76232),

Gene: Cactojaque\_129 Start: 73133, Stop: 73816, Start Num: 5

Candidate Starts for Cactojaque\_129:

(4, 73115), (Start: 5 @73133 has 184 MA's), (10, 73220), (12, 73310), (15, 73385), (20, 73418), (21, 73421), (22, 73424), (29, 73550), (31, 73577), (32, 73580),

Gene: Cali\_128 Start: 74584, Stop: 75267, Start Num: 5

Candidate Starts for Cali\_128:

(4, 74566), (Start: 5 @74584 has 184 MA's), (10, 74671), (12, 74761), (15, 74836), (20, 74869), (21, 74872), (22, 74875), (29, 75001), (31, 75028), (32, 75031),

Gene: Cane17\_125 Start: 75446, Stop: 76129, Start Num: 5

Candidate Starts for Cane17\_125:

(4, 75428), (Start: 5 @75446 has 184 MA's), (10, 75533), (12, 75623), (15, 75698), (20, 75731), (21, 75734), (22, 75737), (29, 75863), (31, 75890), (32, 75893),

Gene: Capablanca\_136 Start: 75313, Stop: 75996, Start Num: 5

Candidate Starts for Capablanca\_136:

(4, 75295), (Start: 5 @75313 has 184 MA's), (10, 75400), (12, 75490), (15, 75565), (20, 75598), (21, 75601), (22, 75604), (29, 75730), (31, 75757), (32, 75760),

Gene: Caravan\_127 Start: 73941, Stop: 74624, Start Num: 5

Candidate Starts for Caravan\_127:

(4, 73923), (Start: 5 @73941 has 184 MA's), (10, 74028), (12, 74118), (15, 74193), (20, 74226), (21, 74229), (22, 74232), (29, 74358), (31, 74385), (32, 74388),

Gene: Catera\_129 Start: 72848, Stop: 73531, Start Num: 5

Candidate Starts for Catera\_129:

(4, 72830), (Start: 5 @72848 has 184 MA's), (10, 72935), (12, 73025), (15, 73100), (20, 73133), (21, 73136), (22, 73139), (29, 73265), (31, 73292), (32, 73295),

Gene: Chargie21\_130 Start: 73141, Stop: 73824, Start Num: 5

Candidate Starts for Chargie21\_130:

(4, 73123), (Start: 5 @73141 has 184 MA's), (10, 73228), (12, 73318), (15, 73393), (20, 73426), (21, 73429), (22, 73432), (29, 73558), (31, 73585), (32, 73588),

Gene: CharlieB\_130 Start: 73467, Stop: 74150, Start Num: 5

Candidate Starts for CharlieB\_130:

(4, 73449), (Start: 5 @73467 has 184 MA's), (10, 73554), (12, 73644), (15, 73719), (20, 73752), (21, 73755), (22, 73758), (29, 73884), (31, 73911), (32, 73914),

Gene: ChaylaJr\_129 Start: 72949, Stop: 73632, Start Num: 5

Candidate Starts for ChaylaJr\_129:

(4, 72931), (Start: 5 @72949 has 184 MA's), (10, 73036), (12, 73126), (15, 73201), (20, 73234), (21, 73237), (22, 73240), (29, 73366), (31, 73393), (32, 73396),

Gene: CherryTomatoes\_119 Start: 74342, Stop: 75157, Start Num: 3

Candidate Starts for CherryTomatoes\_119:

(Start: 2 @74333 has 1 MA's), (Start: 3 @74342 has 3 MA's), (15, 74711), (18, 74732), (21, 74747), (30, 74882), (35, 74954), (40, 75146),

Gene: ChickenPhender\_129 Start: 72773, Stop: 73456, Start Num: 5

Candidate Starts for ChickenPhender\_129:

(4, 72755), (Start: 5 @72773 has 184 MA's), (10, 72860), (12, 72950), (15, 73025), (20, 73058), (21, 73061), (22, 73064), (29, 73190), (31, 73217), (32, 73220),

Gene: Chomp\_133 Start: 74852, Stop: 75535, Start Num: 5

Candidate Starts for Chomp\_133:

(4, 74834), (Start: 5 @74852 has 184 MA's), (10, 74939), (12, 75029), (15, 75104), (20, 75137), (21, 75140), (22, 75143), (29, 75269), (31, 75296), (32, 75299),

Gene: CindyLou\_135 Start: 74892, Stop: 75575, Start Num: 5

Candidate Starts for CindyLou\_135:

(4, 74874), (Start: 5 @74892 has 184 MA's), (10, 74979), (12, 75069), (15, 75144), (20, 75177), (21, 75180), (22, 75183), (29, 75309), (31, 75336), (32, 75339),

Gene: Cleatunium\_126 Start: 73060, Stop: 73743, Start Num: 5

Candidate Starts for Cleatunium\_126:

(4, 73042), (Start: 5 @73060 has 184 MA's), (10, 73147), (12, 73237), (15, 73312), (20, 73345), (21, 73348), (22, 73351), (29, 73477), (31, 73504), (32, 73507),

Gene: Colt\_125 Start: 75563, Stop: 76246, Start Num: 5

Candidate Starts for Colt\_125:

(4, 75545), (Start: 5 @75563 has 184 MA's), (10, 75650), (12, 75740), (15, 75815), (20, 75848), (21, 75851), (22, 75854), (29, 75980), (31, 76007), (32, 76010),

Gene: Concombre\_139 Start: 76746, Stop: 77429, Start Num: 5

Candidate Starts for Concombre\_139:

(4, 76728), (Start: 5 @76746 has 184 MA's), (10, 76833), (12, 76923), (15, 76998), (20, 77031), (21, 77034), (22, 77037), (29, 77163), (31, 77190), (32, 77193),

Gene: DTDevon\_133 Start: 74614, Stop: 75297, Start Num: 5

Candidate Starts for DTDevon\_133:

(4, 74596), (Start: 5 @74614 has 184 MA's), (10, 74701), (12, 74791), (15, 74866), (20, 74899), (21, 74902), (22, 74905), (29, 75031), (31, 75058), (32, 75061),

Gene: Daffodil\_138 Start: 74555, Stop: 75238, Start Num: 5

Candidate Starts for Daffodil\_138:

(4, 74537), (Start: 5 @74555 has 184 MA's), (10, 74642), (12, 74732), (15, 74807), (20, 74840), (21, 74843), (29, 74972), (31, 74999), (32, 75002),

Gene: Dandelion\_138 Start: 76747, Stop: 77430, Start Num: 5

Candidate Starts for Dandelion\_138:

(4, 76729), (Start: 5 @76747 has 184 MA's), (10, 76834), (12, 76924), (15, 76999), (20, 77032), (21, 77035), (22, 77038), (29, 77164), (31, 77191), (32, 77194),

Gene: Darko\_133 Start: 74247, Stop: 74930, Start Num: 5

Candidate Starts for Darko\_133:

(4, 74229), (Start: 5 @74247 has 184 MA's), (10, 74334), (12, 74424), (15, 74499), (20, 74532), (21, 74535), (22, 74538), (29, 74664), (31, 74691), (32, 74694),

Gene: DeejaClivia\_120 Start: 70913, Stop: 71596, Start Num: 5

Candidate Starts for DeejaClivia\_120:

(4, 70895), (Start: 5 @70913 has 184 MA's), (10, 71000), (12, 71090), (15, 71165), (20, 71198), (21, 71201), (22, 71204), (29, 71330), (31, 71357), (32, 71360),

Gene: Delilah\_133 Start: 74709, Stop: 75392, Start Num: 5

Candidate Starts for Delilah\_133:

(4, 74691), (Start: 5 @74709 has 184 MA's), (10, 74796), (12, 74886), (15, 74961), (20, 74994), (21, 74997), (22, 75000), (29, 75126), (31, 75153), (32, 75156),

Gene: Delylah\_136 Start: 74248, Stop: 74931, Start Num: 5

Candidate Starts for Delylah\_136:

(4, 74230), (Start: 5 @74248 has 184 MA's), (10, 74335), (12, 74425), (15, 74500), (20, 74533), (21, 74536), (22, 74539), (29, 74665), (31, 74692), (32, 74695),

Gene: Demodog\_140 Start: 76755, Stop: 77438, Start Num: 5

Candidate Starts for Demodog\_140:

(4, 76737), (Start: 5 @76755 has 184 MA's), (10, 76842), (12, 76932), (15, 77007), (20, 77040), (21, 77043), (22, 77046), (29, 77172), (31, 77199), (32, 77202),

Gene: Derek\_132 Start: 74174, Stop: 74857, Start Num: 5

Candidate Starts for Derek\_132:

(4, 74156), (Start: 5 @74174 has 184 MA's), (10, 74261), (12, 74351), (15, 74426), (20, 74459), (21, 74462), (22, 74465), (29, 74591), (31, 74618), (32, 74621),

Gene: Dessert\_131 Start: 73129, Stop: 73812, Start Num: 5

Candidate Starts for Dessert\_131:

(4, 73111), (Start: 5 @73129 has 184 MA's), (10, 73216), (12, 73306), (15, 73381), (20, 73414), (21, 73417), (22, 73420), (29, 73546), (31, 73573), (32, 73576),

Gene: Dietrick\_125 Start: 72250, Stop: 72933, Start Num: 5

Candidate Starts for Dietrick\_125:

(4, 72232), (Start: 5 @72250 has 184 MA's), (10, 72337), (12, 72427), (15, 72502), (20, 72535), (21, 72538), (22, 72541), (29, 72667), (31, 72694), (32, 72697),

Gene: DirtMonster\_127 Start: 73508, Stop: 74191, Start Num: 5

Candidate Starts for DirtMonster\_127:

(4, 73490), (Start: 5 @73508 has 184 MA's), (10, 73595), (12, 73685), (15, 73760), (20, 73793), (21, 73796), (22, 73799), (29, 73925), (31, 73952), (32, 73955),

Gene: Domi\_126 Start: 73587, Stop: 74270, Start Num: 5

Candidate Starts for Domi\_126:

(4, 73569), (Start: 5 @73587 has 184 MA's), (10, 73674), (12, 73764), (15, 73839), (20, 73872), (21, 73875), (22, 73878), (29, 74004), (31, 74031), (32, 74034),

Gene: DrPhinkDaddy\_132 Start: 74767, Stop: 75450, Start Num: 5

Candidate Starts for DrPhinkDaddy\_132:

(4, 74749), (Start: 5 @74767 has 184 MA's), (10, 74854), (12, 74944), (15, 75019), (20, 75052), (21, 75055), (29, 75184), (31, 75211), (32, 75214),

Gene: Drazdys\_131 Start: 73238, Stop: 73921, Start Num: 5

Candidate Starts for Drazdys\_131:

(4, 73220), (Start: 5 @73238 has 184 MA's), (10, 73325), (12, 73415), (15, 73490), (20, 73523), (21, 73526), (22, 73529), (29, 73655), (31, 73682), (32, 73685),

Gene: Duckfeet\_127 Start: 73179, Stop: 73862, Start Num: 5

Candidate Starts for Duckfeet\_127:

(4, 73161), (Start: 5 @73179 has 184 MA's), (10, 73266), (12, 73356), (15, 73431), (20, 73464), (21, 73467), (22, 73470), (29, 73596), (31, 73623), (32, 73626),

Gene: E3\_gp117 Start: 71320, Stop: 71931, Start Num: 7

Candidate Starts for E3\_gp117:

(1, 70933), (7, 71320), (11, 71353), (12, 71437), (13, 71455), (14, 71494), (15, 71512), (16, 71515), (25, 71626), (27, 71653), (28, 71671), (30, 71683), (32, 71707), (33, 71722),

Gene: ET08\_121 Start: 73228, Stop: 73911, Start Num: 5

Candidate Starts for ET08\_121:

(4, 73210), (Start: 5 @73228 has 184 MA's), (10, 73315), (12, 73405), (15, 73480), (20, 73513), (21, 73516), (22, 73519), (29, 73645), (31, 73672), (32, 73675),

Gene: EasyJones\_136 Start: 73795, Stop: 74478, Start Num: 5

Candidate Starts for EasyJones\_136:

(4, 73777), (Start: 5 @73795 has 184 MA's), (10, 73882), (12, 73972), (15, 74047), (20, 74080), (21, 74083), (22, 74086), (29, 74212), (31, 74239), (32, 74242),

Gene: EggyFarm\_141 Start: 76513, Stop: 77196, Start Num: 5

Candidate Starts for EggyFarm\_141:

(4, 76495), (Start: 5 @76513 has 184 MA's), (10, 76600), (12, 76690), (15, 76765), (20, 76798), (21, 76801), (22, 76804), (29, 76930), (31, 76957), (32, 76960),

Gene: EmToTheThree\_135 Start: 75507, Stop: 76190, Start Num: 5

Candidate Starts for EmToTheThree\_135:

(4, 75489), (Start: 5 @75507 has 184 MA's), (10, 75594), (12, 75684), (15, 75759), (20, 75792), (21, 75795), (22, 75798), (29, 75924), (31, 75951), (32, 75954),

Gene: EmmaElysia\_134 Start: 73782, Stop: 74465, Start Num: 5

Candidate Starts for EmmaElysia\_134:

(4, 73764), (Start: 5 @73782 has 184 MA's), (10, 73869), (12, 73959), (15, 74034), (20, 74067), (21, 74070), (22, 74073), (29, 74199), (31, 74226), (32, 74229),

Gene: Erdmann\_133 Start: 74556, Stop: 75239, Start Num: 5

Candidate Starts for Erdmann\_133:

(4, 74538), (Start: 5 @74556 has 184 MA's), (10, 74643), (12, 74733), (15, 74808), (20, 74841), (21, 74844), (22, 74847), (29, 74973), (31, 75000), (32, 75003),

Gene: ErnieJ\_127 Start: 72525, Stop: 73208, Start Num: 5

Candidate Starts for ErnieJ\_127:

(4, 72507), (Start: 5 @72525 has 184 MA's), (10, 72612), (12, 72702), (15, 72777), (20, 72810), (21, 72813), (22, 72816), (29, 72942), (31, 72969), (32, 72972),

Gene: Essence\_130 Start: 73404, Stop: 74087, Start Num: 5

Candidate Starts for Essence\_130:

(4, 73386), (Start: 5 @73404 has 184 MA's), (10, 73491), (12, 73581), (15, 73656), (20, 73689), (21, 73692), (22, 73695), (29, 73821), (31, 73848), (32, 73851),

Gene: Ewok\_134 Start: 73933, Stop: 74616, Start Num: 5

Candidate Starts for Ewok\_134:

(4, 73915), (Start: 5 @73933 has 184 MA's), (10, 74020), (12, 74110), (15, 74185), (20, 74218), (21, 74221), (29, 74350), (31, 74377), (32, 74380),

Gene: Fixie\_131 Start: 73676, Stop: 74359, Start Num: 5

Candidate Starts for Fixie\_131:

(4, 73658), (Start: 5 @73676 has 184 MA's), (10, 73763), (12, 73853), (15, 73928), (20, 73961), (21, 73964), (22, 73967), (29, 74093), (31, 74120), (32, 74123),

Gene: Flabslab\_128 Start: 72115, Stop: 72798, Start Num: 5

Candidate Starts for Flabslab\_128:

(4, 72097), (Start: 5 @72115 has 184 MA's), (10, 72202), (12, 72292), (15, 72367), (20, 72400), (21, 72403), (22, 72406), (29, 72532), (31, 72559), (32, 72562),

Gene: Fludd\_134 Start: 73581, Stop: 74264, Start Num: 5

Candidate Starts for Fludd\_134:

(4, 73563), (Start: 5 @73581 has 184 MA's), (10, 73668), (12, 73758), (15, 73833), (20, 73866), (21, 73869), (22, 73872), (29, 73998), (31, 74025), (32, 74028),

Gene: Fongie\_131 Start: 74146, Stop: 74829, Start Num: 5

Candidate Starts for Fongie\_131:

(4, 74128), (Start: 5 @74146 has 184 MA's), (10, 74233), (12, 74323), (15, 74398), (20, 74431), (21, 74434), (29, 74563), (31, 74590), (32, 74593),

Gene: FoxtrotP1\_133 Start: 75716, Stop: 76399, Start Num: 5

Candidate Starts for FoxtrotP1\_133:

(4, 75698), (Start: 5 @75716 has 184 MA's), (10, 75803), (12, 75893), (15, 75968), (20, 76001), (21, 76004), (29, 76133), (31, 76160), (32, 76163),

Gene: FrayBell\_138 Start: 74880, Stop: 75563, Start Num: 5

Candidate Starts for FrayBell\_138:

(4, 74862), (Start: 5 @74880 has 184 MA's), (10, 74967), (12, 75057), (15, 75132), (20, 75165), (21, 75168), (22, 75171), (29, 75297), (31, 75324), (32, 75327),

Gene: FudgeTart\_131 Start: 73586, Stop: 74269, Start Num: 5

Candidate Starts for FudgeTart\_131:

(4, 73568), (Start: 5 @73586 has 184 MA's), (10, 73673), (12, 73763), (15, 73838), (20, 73871), (21, 73874), (29, 74003), (31, 74030), (32, 74033),

Gene: Gabriel\_133 Start: 72810, Stop: 73493, Start Num: 5

Candidate Starts for Gabriel\_133:

(4, 72792), (Start: 5 @72810 has 184 MA's), (10, 72897), (12, 72987), (15, 73062), (20, 73095), (21, 73098), (22, 73101), (29, 73227), (31, 73254), (32, 73257),

Gene: Gamgam\_134 Start: 73553, Stop: 74236, Start Num: 5

Candidate Starts for Gamgam\_134:

(4, 73535), (Start: 5 @73553 has 184 MA's), (10, 73640), (12, 73730), (15, 73805), (20, 73838), (21, 73841), (22, 73844), (29, 73970), (31, 73997), (32, 74000),

Gene: Ghost\_132 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for Ghost\_132:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Gizmo\_138 Start: 76185, Stop: 76868, Start Num: 5

Candidate Starts for Gizmo\_138:

(4, 76167), (Start: 5 @76185 has 184 MA's), (10, 76272), (12, 76362), (15, 76437), (20, 76470), (21, 76473), (29, 76602), (31, 76629), (32, 76632),

Gene: GlutenPhree\_135 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for GlutenPhree\_135:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Grasshills\_140 Start: 76513, Stop: 77196, Start Num: 5

Candidate Starts for Grasshills\_140:

(4, 76495), (Start: 5 @76513 has 184 MA's), (10, 76600), (12, 76690), (15, 76765), (20, 76798), (21, 76801), (22, 76804), (29, 76930), (31, 76957), (32, 76960),

Gene: Greely\_132 Start: 74934, Stop: 75650, Start Num: 5

Candidate Starts for Greely\_132:

(Start: 5 @74934 has 184 MA's), (6, 74976), (8, 74997), (9, 75015), (17, 75192), (18, 75204), (20, 75216), (21, 75219), (25, 75297), (26, 75315), (27, 75324), (35, 75426),

Gene: Grungle\_120 Start: 70828, Stop: 71511, Start Num: 5

Candidate Starts for Grungle\_120:

(4, 70810), (Start: 5 @70828 has 184 MA's), (10, 70915), (12, 71005), (15, 71080), (20, 71113), (21, 71116), (22, 71119), (29, 71245), (31, 71272), (32, 71275),

Gene: Guwapp\_132 Start: 72975, Stop: 73658, Start Num: 5

Candidate Starts for Guwapp\_132:

(4, 72957), (Start: 5 @72975 has 184 MA's), (10, 73062), (12, 73152), (15, 73227), (20, 73260), (21, 73263), (22, 73266), (29, 73392), (31, 73419), (32, 73422),

Gene: Halldule\_127 Start: 71854, Stop: 72537, Start Num: 5

Candidate Starts for Halldule\_127:

(4, 71836), (Start: 5 @71854 has 184 MA's), (10, 71941), (12, 72031), (15, 72106), (20, 72139), (21, 72142), (22, 72145), (29, 72271), (31, 72298), (32, 72301),

Gene: HyRo\_124 Start: 73506, Stop: 74189, Start Num: 5

Candidate Starts for HyRo\_124:

(4, 73488), (Start: 5 @73506 has 184 MA's), (10, 73593), (12, 73683), (15, 73758), (20, 73791), (21, 73794), (22, 73797), (29, 73923), (31, 73950), (32, 73953),

Gene: I3\_138 Start: 75041, Stop: 75724, Start Num: 5

Candidate Starts for I3\_138:

(4, 75023), (Start: 5 @75041 has 184 MA's), (10, 75128), (12, 75218), (15, 75293), (20, 75326), (21, 75329), (22, 75332), (29, 75458), (31, 75485), (32, 75488),

Gene: IkeLoa\_127 Start: 73461, Stop: 74144, Start Num: 5

Candidate Starts for IkeLoa\_127:

(4, 73443), (Start: 5 @73461 has 184 MA's), (10, 73548), (12, 73638), (15, 73713), (20, 73746), (21, 73749), (22, 73752), (29, 73878), (31, 73905), (32, 73908),

Gene: InigoMontoya\_136 Start: 73524, Stop: 74207, Start Num: 5

Candidate Starts for InigoMontoya\_136:

(4, 73506), (Start: 5 @73524 has 184 MA's), (10, 73611), (12, 73701), (15, 73776), (20, 73809), (21, 73812), (22, 73815), (29, 73941), (31, 73968), (32, 73971),

Gene: InterFolia\_139 Start: 75815, Stop: 76498, Start Num: 5

Candidate Starts for InterFolia\_139:

(4, 75797), (Start: 5 @75815 has 184 MA's), (10, 75902), (12, 75992), (15, 76067), (20, 76100), (21, 76103), (22, 76106), (29, 76232), (32, 76262),

Gene: Iota\_128 Start: 73512, Stop: 74195, Start Num: 5

Candidate Starts for Iota\_128:

(4, 73494), (Start: 5 @73512 has 184 MA's), (10, 73599), (12, 73689), (15, 73764), (20, 73797), (21, 73800), (29, 73929), (31, 73956), (32, 73959),

Gene: Issimir\_131 Start: 74520, Stop: 75203, Start Num: 5

Candidate Starts for Issimir\_131:

(4, 74502), (Start: 5 @74520 has 184 MA's), (10, 74607), (12, 74697), (15, 74772), (20, 74805), (21, 74808), (22, 74811), (29, 74937), (32, 74967),

Gene: Izajani\_133 Start: 74726, Stop: 75409, Start Num: 5

Candidate Starts for Izajani\_133:

(4, 74708), (Start: 5 @74726 has 184 MA's), (10, 74813), (12, 74903), (15, 74978), (20, 75011), (21, 75014), (29, 75143), (31, 75170), (32, 75173),

Gene: JPickles\_130 Start: 72315, Stop: 72998, Start Num: 5

Candidate Starts for JPickles\_130:

(4, 72297), (Start: 5 @72315 has 184 MA's), (10, 72402), (12, 72492), (15, 72567), (20, 72600), (21, 72603), (22, 72606), (29, 72732), (31, 72759), (32, 72762),

Gene: Janiyra\_136 Start: 74490, Stop: 75173, Start Num: 5

Candidate Starts for Janiyra\_136:

(4, 74472), (Start: 5 @74490 has 184 MA's), (10, 74577), (12, 74667), (15, 74742), (20, 74775), (21, 74778), (22, 74781), (29, 74907), (31, 74934), (32, 74937),

Gene: JayJay\_138 Start: 75521, Stop: 76204, Start Num: 5

Candidate Starts for JayJay\_138:

(4, 75503), (Start: 5 @75521 has 184 MA's), (10, 75608), (12, 75698), (15, 75773), (20, 75806), (21, 75809), (22, 75812), (29, 75938), (31, 75965), (32, 75968),

Gene: Jaygup\_133 Start: 73840, Stop: 74523, Start Num: 5

Candidate Starts for Jaygup\_133:

(4, 73822), (Start: 5 @73840 has 184 MA's), (10, 73927), (12, 74017), (15, 74092), (20, 74125), (21, 74128), (22, 74131), (29, 74257), (31, 74284), (32, 74287),

Gene: Jedediah\_136 Start: 74373, Stop: 75056, Start Num: 5

Candidate Starts for Jedediah\_136:

(4, 74355), (Start: 5 @74373 has 184 MA's), (10, 74460), (12, 74550), (15, 74625), (20, 74658), (21, 74661), (22, 74664), (29, 74790), (31, 74817), (32, 74820),

Gene: Jemmno\_133 Start: 73820, Stop: 74503, Start Num: 5

Candidate Starts for Jemmno\_133:

(4, 73802), (Start: 5 @73820 has 184 MA's), (10, 73907), (12, 73997), (15, 74072), (20, 74105), (21, 74108), (22, 74111), (29, 74237), (31, 74264), (32, 74267),

Gene: Jessibeth14\_132 Start: 74352, Stop: 75035, Start Num: 5

Candidate Starts for Jessibeth14\_132:

(4, 74334), (Start: 5 @74352 has 184 MA's), (10, 74439), (12, 74529), (15, 74604), (20, 74637), (21, 74640), (22, 74643), (29, 74769), (31, 74796), (32, 74799),

Gene: Jezreel\_133 Start: 74506, Stop: 75189, Start Num: 5

Candidate Starts for Jezreel\_133:

(4, 74488), (Start: 5 @74506 has 184 MA's), (10, 74593), (12, 74683), (15, 74758), (20, 74791), (21, 74794), (29, 74923), (31, 74950), (32, 74953),

Gene: JigglyPuff\_141 Start: 76670, Stop: 77353, Start Num: 5

Candidate Starts for JigglyPuff\_141:

(4, 76652), (Start: 5 @76670 has 184 MA's), (10, 76757), (12, 76847), (15, 76922), (20, 76955), (21, 76958), (22, 76961), (29, 77087), (31, 77114), (32, 77117),

Gene: JulietS\_127 Start: 71707, Stop: 72390, Start Num: 5

Candidate Starts for JulietS\_127:

(4, 71689), (Start: 5 @71707 has 184 MA's), (10, 71794), (12, 71884), (15, 71959), (20, 71992), (21, 71995), (22, 71998), (29, 72124), (31, 72151), (32, 72154),

Gene: JustHall\_131 Start: 74348, Stop: 75031, Start Num: 5

Candidate Starts for JustHall\_131:

(4, 74330), (Start: 5 @74348 has 184 MA's), (10, 74435), (12, 74525), (15, 74600), (20, 74633), (21, 74636), (22, 74639), (29, 74765), (31, 74792), (32, 74795),

Gene: Kamryn\_133 Start: 75158, Stop: 75841, Start Num: 5

Candidate Starts for Kamryn\_133:

(4, 75140), (Start: 5 @75158 has 184 MA's), (10, 75245), (12, 75335), (15, 75410), (20, 75443), (21, 75446), (29, 75575), (31, 75602), (32, 75605),

Gene: Kboogie\_137 Start: 73513, Stop: 74196, Start Num: 5

Candidate Starts for Kboogie\_137:

(4, 73495), (Start: 5 @73513 has 184 MA's), (10, 73600), (12, 73690), (15, 73765), (20, 73798), (21, 73801), (22, 73804), (29, 73930), (31, 73957), (32, 73960),

Gene: Khaleesi\_132 Start: 74455, Stop: 75138, Start Num: 5

Candidate Starts for Khaleesi\_132:

(4, 74437), (Start: 5 @74455 has 184 MA's), (10, 74542), (12, 74632), (15, 74707), (20, 74740), (21, 74743), (22, 74746), (29, 74872), (31, 74899), (32, 74902),

Gene: Koguma\_130 Start: 71990, Stop: 72673, Start Num: 5

Candidate Starts for Koguma\_130:

(4, 71972), (Start: 5 @71990 has 184 MA's), (10, 72077), (12, 72167), (15, 72242), (20, 72275), (21, 72278), (22, 72281), (29, 72407), (31, 72434), (32, 72437),

Gene: LRRHood\_126 Start: 73798, Stop: 74481, Start Num: 5

Candidate Starts for LRRHood\_126:

(4, 73780), (Start: 5 @73798 has 184 MA's), (10, 73885), (12, 73975), (15, 74050), (20, 74083), (21, 74086), (22, 74089), (29, 74215), (31, 74242), (32, 74245),

Gene: Labradorite\_132 Start: 72527, Stop: 73210, Start Num: 5

Candidate Starts for Labradorite\_132:

(4, 72509), (Start: 5 @72527 has 184 MA's), (10, 72614), (12, 72704), (15, 72779), (20, 72812), (21, 72815), (22, 72818), (29, 72944), (32, 72974),

Gene: Latch\_134 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for Latch\_134:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Lee7\_131 Start: 75079, Stop: 75762, Start Num: 5

Candidate Starts for Lee7\_131:

(4, 75061), (Start: 5 @75079 has 184 MA's), (10, 75166), (12, 75256), (15, 75331), (20, 75364), (21, 75367), (29, 75496), (31, 75523), (32, 75526),

Gene: Lethe\_131 Start: 74517, Stop: 75200, Start Num: 5

Candidate Starts for Lethe\_131:

(4, 74499), (Start: 5 @74517 has 184 MA's), (10, 74604), (12, 74694), (15, 74769), (20, 74802), (21, 74805), (29, 74934), (31, 74961), (32, 74964),

Gene: LifeSavor\_131 Start: 73772, Stop: 74455, Start Num: 5

Candidate Starts for LifeSavor\_131:

(4, 73754), (Start: 5 @73772 has 184 MA's), (10, 73859), (12, 73949), (15, 74024), (20, 74057), (21, 74060), (22, 74063), (29, 74189), (31, 74216), (32, 74219),

Gene: LinStu\_131 Start: 74407, Stop: 75090, Start Num: 5

Candidate Starts for LinStu\_131:

(4, 74389), (Start: 5 @74407 has 184 MA's), (10, 74494), (12, 74584), (15, 74659), (20, 74692), (21, 74695), (22, 74698), (29, 74824), (31, 74851), (32, 74854),

Gene: Littleton\_133 Start: 73892, Stop: 74575, Start Num: 5

Candidate Starts for Littleton\_133:

(4, 73874), (Start: 5 @73892 has 184 MA's), (10, 73979), (12, 74069), (15, 74144), (20, 74177), (21, 74180), (22, 74183), (29, 74309), (31, 74336), (32, 74339),

Gene: Loanshark\_132 Start: 74423, Stop: 75106, Start Num: 5

Candidate Starts for Loanshark\_132:

(4, 74405), (Start: 5 @74423 has 184 MA's), (10, 74510), (12, 74600), (15, 74675), (20, 74708), (21, 74711), (22, 74714), (29, 74840), (31, 74867), (32, 74870),

Gene: LolaVinca\_133 Start: 74766, Stop: 75449, Start Num: 5

Candidate Starts for LolaVinca\_133:

(4, 74748), (Start: 5 @74766 has 184 MA's), (10, 74853), (12, 74943), (15, 75018), (20, 75051), (21, 75054), (22, 75057), (29, 75183), (31, 75210), (32, 75213),

Gene: LookingGlass\_133 Start: 74591, Stop: 75274, Start Num: 5

Candidate Starts for LookingGlass\_133:

(4, 74573), (Start: 5 @74591 has 184 MA's), (10, 74678), (12, 74768), (15, 74843), (20, 74876), (21, 74879), (22, 74882), (29, 75008), (31, 75035), (32, 75038),

Gene: LordLeafolot\_137 Start: 75732, Stop: 76415, Start Num: 5

Candidate Starts for LordLeafolot\_137:

(4, 75714), (Start: 5 @75732 has 184 MA's), (10, 75819), (12, 75909), (15, 75984), (20, 76017), (21, 76020), (22, 76023), (29, 76149), (31, 76176), (32, 76179),

Gene: Lukilu\_123 Start: 74808, Stop: 75491, Start Num: 5

Candidate Starts for Lukilu\_123:

(4, 74790), (Start: 5 @74808 has 184 MA's), (10, 74895), (12, 74985), (15, 75060), (20, 75093), (21, 75096), (22, 75099), (29, 75225), (31, 75252), (32, 75255),

Gene: Lunareta\_132 Start: 75688, Stop: 76371, Start Num: 5

Candidate Starts for Lunareta\_132:

(4, 75670), (Start: 5 @75688 has 184 MA's), (10, 75775), (12, 75865), (15, 75940), (20, 75973), (21, 75976), (22, 75979), (29, 76105), (32, 76135),

Gene: Maby2021\_133 Start: 74539, Stop: 75222, Start Num: 5

Candidate Starts for Maby2021\_133:

(4, 74521), (Start: 5 @74539 has 184 MA's), (10, 74626), (12, 74716), (15, 74791), (20, 74824), (21, 74827), (29, 74956), (31, 74983), (32, 74986),

Gene: Mangeria\_133 Start: 74609, Stop: 75292, Start Num: 5

Candidate Starts for Mangeria\_133:

(4, 74591), (Start: 5 @74609 has 184 MA's), (10, 74696), (12, 74786), (15, 74861), (20, 74894), (21, 74897), (22, 74900), (29, 75026), (31, 75053), (32, 75056),

Gene: Matsumoto\_131 Start: 73400, Stop: 74083, Start Num: 5

Candidate Starts for Matsumoto\_131:

(4, 73382), (Start: 5 @73400 has 184 MA's), (10, 73487), (12, 73577), (15, 73652), (20, 73685), (21, 73688), (22, 73691), (29, 73817), (31, 73844), (32, 73847),

Gene: Maturis\_131 Start: 74184, Stop: 74867, Start Num: 5

Candidate Starts for Maturis\_131:

(4, 74166), (Start: 5 @74184 has 184 MA's), (10, 74271), (12, 74361), (15, 74436), (20, 74469), (21, 74472), (22, 74475), (29, 74601), (32, 74631),

Gene: McGee\_135 Start: 73154, Stop: 73837, Start Num: 5

Candidate Starts for McGee\_135:

(4, 73136), (Start: 5 @73154 has 184 MA's), (10, 73241), (12, 73331), (15, 73406), (20, 73439), (21, 73442), (22, 73445), (29, 73571), (31, 73598), (32, 73601),

Gene: McWolfish\_131 Start: 74328, Stop: 75011, Start Num: 5

Candidate Starts for McWolfish\_131:

(4, 74310), (Start: 5 @74328 has 184 MA's), (10, 74415), (12, 74505), (15, 74580), (20, 74613), (21, 74616), (22, 74619), (29, 74745), (31, 74772), (32, 74775),

Gene: Megamind\_132 Start: 74212, Stop: 74895, Start Num: 5

Candidate Starts for Megamind\_132:

(4, 74194), (Start: 5 @74212 has 184 MA's), (10, 74299), (12, 74389), (15, 74464), (20, 74497), (21, 74500), (22, 74503), (29, 74629), (31, 74656), (32, 74659),

Gene: Melpomini\_127 Start: 71678, Stop: 72361, Start Num: 5

Candidate Starts for Melpomini\_127:

(4, 71660), (Start: 5 @71678 has 184 MA's), (10, 71765), (12, 71855), (15, 71930), (20, 71963), (21, 71966), (22, 71969), (29, 72095), (31, 72122), (32, 72125),

Gene: MikeLiesIn\_134 Start: 74569, Stop: 75252, Start Num: 5

Candidate Starts for MikeLiesIn\_134:

(4, 74551), (Start: 5 @74569 has 184 MA's), (10, 74656), (12, 74746), (15, 74821), (20, 74854), (21, 74857), (22, 74860), (29, 74986), (31, 75013), (32, 75016),

Gene: Mikro\_130 Start: 75782, Stop: 76465, Start Num: 5

Candidate Starts for Mikro\_130:

(4, 75764), (Start: 5 @75782 has 184 MA's), (10, 75869), (12, 75959), (15, 76034), (20, 76067), (21, 76070), (22, 76073), (29, 76199), (31, 76226), (32, 76229),

Gene: MoMoMixon\_133 Start: 74045, Stop: 74728, Start Num: 5

Candidate Starts for MoMoMixon\_133:

(4, 74027), (Start: 5 @74045 has 184 MA's), (10, 74132), (12, 74222), (15, 74297), (20, 74330), (21, 74333), (22, 74336), (29, 74462), (31, 74489), (32, 74492),

Gene: Moby\_126 Start: 71383, Stop: 72066, Start Num: 5

Candidate Starts for Moby\_126:

(4, 71365), (Start: 5 @71383 has 184 MA's), (10, 71470), (12, 71560), (15, 71635), (20, 71668), (21, 71671), (22, 71674), (29, 71800), (31, 71827), (32, 71830),

Gene: Moiqah\_125 Start: 71360, Stop: 72043, Start Num: 5

Candidate Starts for Moiqah\_125:

(4, 71342), (Start: 5 @71360 has 184 MA's), (10, 71447), (12, 71537), (15, 71612), (20, 71645), (21, 71648), (22, 71651), (29, 71777), (31, 71804), (32, 71807),

Gene: Momo\_133 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for Momo\_133:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Montpel\_132 Start: 75686, Stop: 76369, Start Num: 5

Candidate Starts for Montpel\_132:

(4, 75668), (Start: 5 @75686 has 184 MA's), (10, 75773), (12, 75863), (15, 75938), (20, 75971), (21, 75974), (22, 75977), (29, 76103), (32, 76133),

Gene: Morizzled23\_134 Start: 73918, Stop: 74601, Start Num: 5

Candidate Starts for Morizzled23\_134:

(4, 73900), (Start: 5 @73918 has 184 MA's), (10, 74005), (12, 74095), (15, 74170), (20, 74203), (21, 74206), (22, 74209), (29, 74335), (31, 74362), (32, 74365),

Gene: Myrna\_129 Start: 75631, Stop: 76353, Start Num: 5

Candidate Starts for Myrna\_129:

(Start: 5 @75631 has 184 MA's), (6, 75670), (9, 75709), (18, 75898), (20, 75910), (21, 75913), (26, 76009), (35, 76120), (36, 76171),

Gene: Naija\_133 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for Naija\_133:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Napoleon13\_129 Start: 72116, Stop: 72799, Start Num: 5

Candidate Starts for Napoleon13\_129:

(4, 72098), (Start: 5 @72116 has 184 MA's), (10, 72203), (12, 72293), (15, 72368), (20, 72401), (21, 72404), (22, 72407), (29, 72533), (31, 72560), (32, 72563),

Gene: Nappy\_135 Start: 75479, Stop: 76162, Start Num: 5

Candidate Starts for Nappy\_135:

(4, 75461), (Start: 5 @75479 has 184 MA's), (10, 75566), (12, 75656), (15, 75731), (20, 75764), (21, 75767), (22, 75770), (29, 75896), (31, 75923), (32, 75926),

Gene: Naval22\_141 Start: 76012, Stop: 76695, Start Num: 5

Candidate Starts for Naval22\_141:

(4, 75994), (Start: 5 @76012 has 184 MA's), (10, 76099), (12, 76189), (15, 76264), (20, 76297), (21, 76300), (22, 76303), (29, 76429), (31, 76456), (32, 76459),

Gene: NedWong\_134 Start: 74546, Stop: 75229, Start Num: 5

Candidate Starts for NedWong\_134:

(4, 74528), (Start: 5 @74546 has 184 MA's), (10, 74633), (12, 74723), (15, 74798), (20, 74831), (21, 74834), (29, 74963), (31, 74990), (32, 74993),

Gene: Ngannou\_130 Start: 72545, Stop: 73228, Start Num: 5

Candidate Starts for Ngannou\_130:

(4, 72527), (Start: 5 @72545 has 184 MA's), (10, 72632), (12, 72722), (15, 72797), (20, 72830), (21, 72833), (22, 72836), (29, 72962), (31, 72989), (32, 72992),

Gene: Nidhogg\_135 Start: 74769, Stop: 75452, Start Num: 5

Candidate Starts for Nidhogg\_135:

(4, 74751), (Start: 5 @74769 has 184 MA's), (10, 74856), (12, 74946), (15, 75021), (20, 75054), (21, 75057), (29, 75186), (31, 75213), (32, 75216),

Gene: NoodleTree\_140 Start: 74639, Stop: 75322, Start Num: 5

Candidate Starts for NoodleTree\_140:

(4, 74621), (Start: 5 @74639 has 184 MA's), (10, 74726), (12, 74816), (15, 74891), (20, 74924), (21, 74927), (22, 74930), (29, 75056), (31, 75083), (32, 75086),

Gene: Norm\_134 Start: 75241, Stop: 75924, Start Num: 5

Candidate Starts for Norm\_134:

(4, 75223), (Start: 5 @75241 has 184 MA's), (10, 75328), (12, 75418), (15, 75493), (20, 75526), (21, 75529), (29, 75658), (31, 75685), (32, 75688),

Gene: NuevoMundo\_138 Start: 76821, Stop: 77504, Start Num: 5

Candidate Starts for NuevoMundo\_138:

(4, 76803), (Start: 5 @76821 has 184 MA's), (10, 76908), (12, 76998), (15, 77073), (20, 77106), (21, 77109), (22, 77112), (29, 77238), (31, 77265), (32, 77268),

Gene: OrediggerDelux\_131 Start: 75076, Stop: 75759, Start Num: 5

Candidate Starts for OrediggerDelux\_131:

(4, 75058), (Start: 5 @75076 has 184 MA's), (10, 75163), (12, 75253), (15, 75328), (20, 75361), (21, 75364), (29, 75493), (31, 75520), (32, 75523),

Gene: ParkTD\_134 Start: 74552, Stop: 75235, Start Num: 5

Candidate Starts for ParkTD\_134:

(4, 74534), (Start: 5 @74552 has 184 MA's), (10, 74639), (12, 74729), (15, 74804), (20, 74837), (21, 74840), (29, 74969), (31, 74996), (32, 74999),

Gene: Patter\_134 Start: 73580, Stop: 74263, Start Num: 5

Candidate Starts for Patter\_134:

(4, 73562), (Start: 5 @73580 has 184 MA's), (10, 73667), (12, 73757), (15, 73832), (20, 73865), (21, 73868), (22, 73871), (29, 73997), (31, 74024), (32, 74027),

Gene: Phabba\_134 Start: 74628, Stop: 75344, Start Num: 5

Candidate Starts for Phabba\_134:

(Start: 5 @74628 has 184 MA's), (6, 74670), (9, 74709), (17, 74886), (18, 74898), (20, 74910), (21, 74913), (25, 74991), (26, 75009), (30, 75048), (35, 75120), (36, 75171),

Gene: PharkleMinkus\_137 Start: 74880, Stop: 75563, Start Num: 5

Candidate Starts for PharkleMinkus\_137:

(4, 74862), (Start: 5 @74880 has 184 MA's), (10, 74967), (12, 75057), (15, 75132), (20, 75165), (21, 75168), (22, 75171), (29, 75297), (31, 75324), (32, 75327),

Gene: Phlegm\_137 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for Phlegm\_137:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Phox\_130 Start: 74832, Stop: 75515, Start Num: 5

Candidate Starts for Phox\_130:

(4, 74814), (Start: 5 @74832 has 184 MA's), (10, 74919), (12, 75009), (15, 75084), (20, 75117), (21, 75120), (22, 75123), (29, 75249), (31, 75276), (32, 75279),

Gene: Phusco\_133 Start: 73839, Stop: 74522, Start Num: 5

Candidate Starts for Phusco\_133:

(4, 73821), (Start: 5 @73839 has 184 MA's), (10, 73926), (12, 74016), (15, 74091), (20, 74124), (21, 74127), (22, 74130), (29, 74256), (31, 74283), (32, 74286),

Gene: Pier\_137 Start: 76829, Stop: 77512, Start Num: 5

Candidate Starts for Pier\_137:

(4, 76811), (Start: 5 @76829 has 184 MA's), (10, 76916), (12, 77006), (15, 77081), (20, 77114), (21, 77117), (22, 77120), (29, 77246), (31, 77273), (32, 77276),

Gene: Pinkcreek\_124 Start: 72173, Stop: 72856, Start Num: 5

Candidate Starts for Pinkcreek\_124:

(4, 72155), (Start: 5 @72173 has 184 MA's), (10, 72260), (12, 72350), (15, 72425), (20, 72458), (21, 72461), (22, 72464), (29, 72590), (31, 72617), (32, 72620),

Gene: Pio\_137 Start: 76441, Stop: 77124, Start Num: 5

Candidate Starts for Pio\_137:

(4, 76423), (Start: 5 @76441 has 184 MA's), (10, 76528), (12, 76618), (15, 76693), (20, 76726), (21, 76729), (22, 76732), (29, 76858), (31, 76885), (32, 76888),

Gene: Pivoine\_133 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for Pivoine\_133:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Pleione\_136 Start: 74719, Stop: 75402, Start Num: 5

Candidate Starts for Pleione\_136:

(4, 74701), (Start: 5 @74719 has 184 MA's), (10, 74806), (12, 74896), (15, 74971), (20, 75004), (21, 75007), (22, 75010), (29, 75136), (31, 75163), (32, 75166),

Gene: Primadonna\_127 Start: 73204, Stop: 73887, Start Num: 5

Candidate Starts for Primadonna\_127:

(4, 73186), (Start: 5 @73204 has 184 MA's), (10, 73291), (12, 73381), (15, 73456), (20, 73489), (21, 73492), (22, 73495), (29, 73621), (32, 73651),

Gene: Pupper\_120 Start: 75182, Stop: 76006, Start Num: 2

Candidate Starts for Pupper\_120:

(Start: 2 @75182 has 1 MA's), (Start: 3 @75191 has 3 MA's), (15, 75560), (18, 75581), (21, 75596), (30, 75731), (35, 75803), (40, 75995),

Gene: Pupusa\_139 Start: 75921, Stop: 76604, Start Num: 5

Candidate Starts for Pupusa\_139:

(4, 75903), (Start: 5 @75921 has 184 MA's), (10, 76008), (12, 76098), (15, 76173), (20, 76206), (21, 76209), (22, 76212), (29, 76338), (31, 76365), (32, 76368),

Gene: PurduePete\_133 Start: 74966, Stop: 75649, Start Num: 5

Candidate Starts for PurduePete\_133:

(4, 74948), (Start: 5 @74966 has 184 MA's), (10, 75053), (12, 75143), (15, 75218), (20, 75251), (21, 75254), (22, 75257), (29, 75383), (31, 75410), (32, 75413),

Gene: QBert\_127 Start: 73556, Stop: 74239, Start Num: 5

Candidate Starts for QBert\_127:

(4, 73538), (Start: 5 @73556 has 184 MA's), (10, 73643), (12, 73733), (15, 73808), (20, 73841), (21, 73844), (22, 73847), (29, 73973), (31, 74000), (32, 74003),

Gene: Quasimodo\_135 Start: 74980, Stop: 75663, Start Num: 5

Candidate Starts for Quasimodo\_135:

(4, 74962), (Start: 5 @74980 has 184 MA's), (10, 75067), (12, 75157), (15, 75232), (20, 75265), (21, 75268), (22, 75271), (29, 75397), (31, 75424), (32, 75427),

Gene: Rabinovish\_132 Start: 75164, Stop: 75847, Start Num: 5

Candidate Starts for Rabinovish\_132:

(4, 75146), (Start: 5 @75164 has 184 MA's), (10, 75251), (12, 75341), (15, 75416), (20, 75449), (21, 75452), (22, 75455), (29, 75581), (31, 75608), (32, 75611),

Gene: Rahel\_132 Start: 73441, Stop: 74124, Start Num: 5

Candidate Starts for Rahel\_132:

(4, 73423), (Start: 5 @73441 has 184 MA's), (10, 73528), (12, 73618), (15, 73693), (20, 73726), (21, 73729), (22, 73732), (29, 73858), (31, 73885), (32, 73888),

Gene: Rizal\_128 Start: 72589, Stop: 73272, Start Num: 5

Candidate Starts for Rizal\_128:

(4, 72571), (Start: 5 @72589 has 184 MA's), (10, 72676), (12, 72766), (15, 72841), (20, 72874), (21, 72877), (22, 72880), (29, 73006), (31, 73033), (32, 73036),

Gene: RoMag\_128 Start: 73753, Stop: 74436, Start Num: 5

Candidate Starts for RoMag\_128:

(4, 73735), (Start: 5 @73753 has 184 MA's), (10, 73840), (12, 73930), (15, 74005), (20, 74038), (21, 74041), (22, 74044), (29, 74170), (31, 74197), (32, 74200),

Gene: Rocha\_131 Start: 74006, Stop: 74689, Start Num: 5

Candidate Starts for Rocha\_131:

(4, 73988), (Start: 5 @74006 has 184 MA's), (10, 74093), (12, 74183), (15, 74258), (20, 74291), (21, 74294), (22, 74297), (29, 74423), (31, 74450), (32, 74453),

Gene: Ronan\_127 Start: 71702, Stop: 72385, Start Num: 5

Candidate Starts for Ronan\_127:

(4, 71684), (Start: 5 @71702 has 184 MA's), (10, 71789), (12, 71879), (15, 71954), (20, 71987), (21, 71990), (22, 71993), (29, 72119), (31, 72146), (32, 72149),

Gene: Roots515\_132 Start: 75218, Stop: 75901, Start Num: 5

Candidate Starts for Roots515\_132:

(4, 75200), (Start: 5 @75218 has 184 MA's), (10, 75305), (12, 75395), (15, 75470), (20, 75503), (21, 75506), (22, 75509), (29, 75635), (31, 75662), (32, 75665),

Gene: SCentae\_119 Start: 75344, Stop: 76156, Start Num: 3

Candidate Starts for SCentae\_119:

(Start: 2 @75335 has 1 MA's), (Start: 3 @75344 has 3 MA's), (15, 75713), (18, 75734), (21, 75749), (30, 75884), (35, 75956), (40, 76145),

Gene: SVoro\_131 Start: 74926, Stop: 75609, Start Num: 5

Candidate Starts for SVoro\_131:

(4, 74908), (Start: 5 @74926 has 184 MA's), (10, 75013), (12, 75103), (15, 75178), (20, 75211), (21, 75214), (22, 75217), (29, 75343), (31, 75370), (32, 75373),

Gene: Salacia\_137 Start: 74880, Stop: 75563, Start Num: 5

Candidate Starts for Salacia\_137:

(4, 74862), (Start: 5 @74880 has 184 MA's), (10, 74967), (12, 75057), (15, 75132), (20, 75165), (21, 75168), (29, 75297), (31, 75324), (32, 75327),

Gene: Sauce\_133 Start: 73496, Stop: 74179, Start Num: 5

Candidate Starts for Sauce\_133:

(4, 73478), (Start: 5 @73496 has 184 MA's), (10, 73583), (12, 73673), (15, 73748), (20, 73781), (21, 73784), (22, 73787), (29, 73913), (31, 73940), (32, 73943),

Gene: ScoobyDoobyDoo\_125 Start: 74272, Stop: 74976, Start Num: 5

Candidate Starts for ScoobyDoobyDoo\_125:

(Start: 5 @74272 has 184 MA's), (17, 74524), (20, 74548), (21, 74551), (27, 74656), (29, 74680), (34, 74737), (36, 74809), (37, 74812), (39, 74944),

Gene: ScottMcG\_129 Start: 73502, Stop: 74185, Start Num: 5

Candidate Starts for ScottMcG\_129:

(4, 73484), (Start: 5 @73502 has 184 MA's), (10, 73589), (12, 73679), (15, 73754), (20, 73787), (21, 73790), (22, 73793), (29, 73919), (31, 73946), (32, 73949),

Gene: Sebata\_133 Start: 74965, Stop: 75648, Start Num: 5

Candidate Starts for Sebata\_133:

(4, 74947), (Start: 5 @74965 has 184 MA's), (10, 75052), (12, 75142), (15, 75217), (20, 75250), (21, 75253), (22, 75256), (29, 75382), (31, 75409), (32, 75412),

Gene: Shaqnato\_126 Start: 72546, Stop: 73229, Start Num: 5

Candidate Starts for Shaqnato\_126:

(4, 72528), (Start: 5 @72546 has 184 MA's), (10, 72633), (12, 72723), (15, 72798), (20, 72831), (21, 72834), (22, 72837), (29, 72963), (31, 72990), (32, 72993),

Gene: Shelob\_135 Start: 75348, Stop: 76031, Start Num: 5

Candidate Starts for Shelob\_135:

(4, 75330), (Start: 5 @75348 has 184 MA's), (10, 75435), (12, 75525), (15, 75600), (20, 75633), (21, 75636), (29, 75765), (31, 75792), (32, 75795),

Gene: ShiaLabeouf\_132 Start: 73876, Stop: 74559, Start Num: 5

Candidate Starts for ShiaLabeouf\_132:

(4, 73858), (Start: 5 @73876 has 184 MA's), (10, 73963), (12, 74053), (15, 74128), (20, 74161), (21, 74164), (22, 74167), (29, 74293), (31, 74320), (32, 74323),

Gene: Shifa\_122 Start: 72772, Stop: 73455, Start Num: 5

Candidate Starts for Shifa\_122:

(4, 72754), (Start: 5 @72772 has 184 MA's), (10, 72859), (12, 72949), (15, 73024), (20, 73057), (21, 73060), (22, 73063), (29, 73189), (31, 73216), (32, 73219),

Gene: Shnickers\_133 Start: 73840, Stop: 74523, Start Num: 5

Candidate Starts for Shnickers\_133:

(4, 73822), (Start: 5 @73840 has 184 MA's), (10, 73927), (12, 74017), (15, 74092), (20, 74125), (21, 74128), (22, 74131), (29, 74257), (31, 74284), (32, 74287),

Gene: Shrimp\_133 Start: 74560, Stop: 75243, Start Num: 5

Candidate Starts for Shrimp\_133:

(4, 74542), (Start: 5 @74560 has 184 MA's), (10, 74647), (12, 74737), (15, 74812), (20, 74845), (21, 74848), (22, 74851), (29, 74977), (31, 75004), (32, 75007),

Gene: SilverDipper\_135 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for SilverDipper\_135:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Skog\_182 Start: 105122, Stop: 105937, Start Num: 3

Candidate Starts for Skog\_182:

(Start: 2 @105113 has 1 MA's), (Start: 3 @105122 has 3 MA's), (12, 105416), (15, 105491), (18, 105512), (19, 105521), (21, 105527), (30, 105662), (35, 105734),

Gene: SmallFry\_133 Start: 73065, Stop: 73748, Start Num: 5

Candidate Starts for SmallFry\_133:

(4, 73047), (Start: 5 @73065 has 184 MA's), (10, 73152), (12, 73242), (15, 73317), (20, 73350), (21, 73353), (22, 73356), (29, 73482), (31, 73509), (32, 73512),

Gene: SoilZilla\_129 Start: 73839, Stop: 74522, Start Num: 5

Candidate Starts for SoilZilla\_129:

(4, 73821), (Start: 5 @73839 has 184 MA's), (10, 73926), (12, 74016), (15, 74091), (20, 74124), (21, 74127), (22, 74130), (29, 74256), (31, 74283), (32, 74286),

Gene: Spec\_129 Start: 73605, Stop: 74288, Start Num: 5

Candidate Starts for Spec\_129:

(4, 73587), (Start: 5 @73605 has 184 MA's), (10, 73692), (12, 73782), (15, 73857), (20, 73890), (21, 73893), (22, 73896), (29, 74022), (31, 74049), (32, 74052),

Gene: Specks\_138 Start: 75730, Stop: 76413, Start Num: 5

Candidate Starts for Specks\_138:

(4, 75712), (Start: 5 @75730 has 184 MA's), (10, 75817), (12, 75907), (15, 75982), (20, 76015), (21, 76018), (22, 76021), (29, 76147), (32, 76177),

Gene: Sprinklers\_129 Start: 73121, Stop: 73804, Start Num: 5

Candidate Starts for Sprinklers\_129:

(4, 73103), (Start: 5 @73121 has 184 MA's), (10, 73208), (12, 73298), (15, 73373), (20, 73406), (21, 73409), (22, 73412), (29, 73538), (31, 73565), (32, 73568),

Gene: Spud\_132 Start: 74626, Stop: 75309, Start Num: 5

Candidate Starts for Spud\_132:

(4, 74608), (Start: 5 @74626 has 184 MA's), (10, 74713), (12, 74803), (15, 74878), (20, 74911), (21, 74914), (22, 74917), (29, 75043), (31, 75070), (32, 75073),

Gene: SrishMeg2525\_132 Start: 74648, Stop: 75331, Start Num: 5

Candidate Starts for SrishMeg2525\_132:

(4, 74630), (Start: 5 @74648 has 184 MA's), (10, 74735), (12, 74825), (15, 74900), (20, 74933), (21, 74936), (29, 75065), (31, 75092), (32, 75095),

Gene: StephanieG\_131 Start: 75458, Stop: 76141, Start Num: 5

Candidate Starts for StephanieG\_131:

(4, 75440), (Start: 5 @75458 has 184 MA's), (10, 75545), (12, 75635), (15, 75710), (20, 75743), (21, 75746), (22, 75749), (29, 75875), (31, 75902), (32, 75905),

Gene: Stubby\_126 Start: 73088, Stop: 73771, Start Num: 5

Candidate Starts for Stubby\_126:

(4, 73070), (Start: 5 @73088 has 184 MA's), (10, 73175), (12, 73265), (15, 73340), (20, 73373), (21, 73376), (22, 73379), (29, 73505), (31, 73532), (32, 73535),

Gene: StubbySaigey\_137 Start: 73723, Stop: 74406, Start Num: 5

Candidate Starts for StubbySaigey\_137:

(4, 73705), (Start: 5 @73723 has 184 MA's), (10, 73810), (12, 73900), (15, 73975), (20, 74008), (21, 74011), (22, 74014), (29, 74140), (31, 74167), (32, 74170),

Gene: Substance289\_131 Start: 73358, Stop: 74041, Start Num: 5

Candidate Starts for Substance289\_131:

(4, 73340), (Start: 5 @73358 has 184 MA's), (10, 73445), (12, 73535), (15, 73610), (20, 73643), (21, 73646), (22, 73649), (29, 73775), (31, 73802), (32, 73805),

Gene: Tainan\_136 Start: 75053, Stop: 75736, Start Num: 5

Candidate Starts for Tainan\_136:

(4, 75035), (Start: 5 @75053 has 184 MA's), (10, 75140), (12, 75230), (15, 75305), (20, 75338), (21, 75341), (22, 75344), (29, 75470), (31, 75497), (32, 75500),

Gene: Teardrop\_132 Start: 73054, Stop: 73737, Start Num: 5

Candidate Starts for Teardrop\_132:

(4, 73036), (Start: 5 @73054 has 184 MA's), (10, 73141), (12, 73231), (15, 73306), (20, 73339), (21, 73342), (22, 73345), (29, 73471), (32, 73501),

Gene: TinyTim\_133 Start: 74306, Stop: 74989, Start Num: 5

Candidate Starts for TinyTim\_133:

(4, 74288), (Start: 5 @74306 has 184 MA's), (10, 74393), (12, 74483), (15, 74558), (20, 74591), (21, 74594), (29, 74723), (31, 74750), (32, 74753),

Gene: Tonenili\_146 Start: 77069, Stop: 77746, Start Num: 5

Candidate Starts for Tonenili\_146:

(4, 77057), (Start: 5 @77069 has 184 MA's), (12, 77243), (15, 77318), (20, 77351), (21, 77354), (22, 77357), (24, 77378), (29, 77483), (30, 77489), (31, 77510), (32, 77513), (38, 77663),

Gene: Tortoise16\_130 Start: 73665, Stop: 74348, Start Num: 5

Candidate Starts for Tortoise16\_130:

(4, 73647), (Start: 5 @73665 has 184 MA's), (10, 73752), (12, 73842), (15, 73917), (20, 73950), (21, 73953), (22, 73956), (29, 74082), (31, 74109), (32, 74112),

Gene: Trinitium\_131 Start: 73489, Stop: 74172, Start Num: 5

Candidate Starts for Trinitium\_131:

(4, 73471), (Start: 5 @73489 has 184 MA's), (10, 73576), (12, 73666), (15, 73741), (20, 73774), (21, 73777), (22, 73780), (29, 73906), (31, 73933), (32, 73936),

Gene: Turret\_129 Start: 72934, Stop: 73617, Start Num: 5

Candidate Starts for Turret\_129:

(4, 72916), (Start: 5 @72934 has 184 MA's), (10, 73021), (12, 73111), (15, 73186), (20, 73219), (21, 73222), (22, 73225), (29, 73351), (31, 73378), (32, 73381),

Gene: Tyke\_133 Start: 74961, Stop: 75644, Start Num: 5

Candidate Starts for Tyke\_133:

(4, 74943), (Start: 5 @74961 has 184 MA's), (12, 75138), (15, 75213), (20, 75246), (21, 75249), (22, 75252), (29, 75378), (31, 75405), (32, 75408),

Gene: ValleyTerrace\_134 Start: 73563, Stop: 74246, Start Num: 5

Candidate Starts for ValleyTerrace\_134:

(4, 73545), (Start: 5 @73563 has 184 MA's), (10, 73650), (12, 73740), (15, 73815), (20, 73848), (21, 73851), (22, 73854), (29, 73980), (31, 74007), (32, 74010),

Gene: Vortrix\_145 Start: 76382, Stop: 77059, Start Num: 5

Candidate Starts for Vortrix\_145:

(4, 76370), (Start: 5 @76382 has 184 MA's), (12, 76556), (15, 76631), (18, 76652), (20, 76664), (21, 76667), (22, 76670), (23, 76685), (24, 76691), (29, 76796), (30, 76802), (31, 76823), (32, 76826), (33, 76841), (38, 76976),

Gene: Wally\_132 Start: 73084, Stop: 73767, Start Num: 5

Candidate Starts for Wally\_132:

(4, 73066), (Start: 5 @73084 has 184 MA's), (10, 73171), (12, 73261), (15, 73336), (20, 73369), (21, 73372), (22, 73375), (29, 73501), (31, 73528), (32, 73531),

Gene: Willis\_134 Start: 74451, Stop: 75134, Start Num: 5

Candidate Starts for Willis\_134:

(4, 74433), (Start: 5 @74451 has 184 MA's), (10, 74538), (12, 74628), (15, 74703), (20, 74736), (21, 74739), (22, 74742), (29, 74868), (31, 74895), (32, 74898),

Gene: Yassified\_130 Start: 73161, Stop: 73844, Start Num: 5

Candidate Starts for Yassified\_130:

(4, 73143), (Start: 5 @73161 has 184 MA's), (10, 73248), (12, 73338), (15, 73413), (20, 73446), (21, 73449), (22, 73452), (29, 73578), (31, 73605), (32, 73608),

Gene: YemiJoy2021\_134 Start: 74543, Stop: 75226, Start Num: 5

Candidate Starts for YemiJoy2021\_134:

(4, 74525), (Start: 5 @74543 has 184 MA's), (10, 74630), (12, 74720), (15, 74795), (20, 74828), (21, 74831), (29, 74960), (31, 74987), (32, 74990),

Gene: YoungMoneyMata\_135 Start: 74189, Stop: 74872, Start Num: 5

Candidate Starts for YoungMoneyMata\_135:

(4, 74171), (Start: 5 @74189 has 184 MA's), (10, 74276), (12, 74366), (15, 74441), (20, 74474), (21, 74477), (22, 74480), (29, 74606), (31, 74633), (32, 74636),

Gene: Yucca\_132 Start: 74225, Stop: 74908, Start Num: 5

Candidate Starts for Yucca\_132:

(4, 74207), (Start: 5 @74225 has 184 MA's), (10, 74312), (12, 74402), (15, 74477), (20, 74510), (21, 74513), (29, 74642), (31, 74669), (32, 74672),

Gene: Zalkecks\_134 Start: 74226, Stop: 74909, Start Num: 5

Candidate Starts for Zalkecks\_134:

(4, 74208), (Start: 5 @74226 has 184 MA's), (10, 74313), (12, 74403), (15, 74478), (20, 74511), (21, 74514), (29, 74643), (31, 74670), (32, 74673),

Gene: Zeenon\_134 Start: 74311, Stop: 74994, Start Num: 5

Candidate Starts for Zeenon\_134:

(4, 74293), (Start: 5 @74311 has 184 MA's), (10, 74398), (12, 74488), (15, 74563), (20, 74596), (21, 74599), (29, 74728), (31, 74755), (32, 74758),

Gene: ZygoTaiga\_131 Start: 75471, Stop: 76154, Start Num: 5

Candidate Starts for ZygoTaiga\_131:

(4, 75453), (Start: 5 @75471 has 184 MA's), (10, 75558), (12, 75648), (15, 75723), (20, 75756), (21, 75759), (29, 75888), (31, 75915), (32, 75918),