

Pham 308063



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 308063 Report

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

Pham number 308063 has 220 members, 38 are drafts.

Phages represented in each track:

- Track 1 : Belieber\_191, Derek\_194, LifeSavor\_196, Pio\_205, Adlitam\_196, LolaVince\_195, Spec\_192, JulietS\_188, Teardrop\_194, Essence\_194, Labradorite\_195, RoMag\_192, JPickles\_193, Rahel\_198, Guwapp\_192, NuevoMundo\_200, Burrough\_199, PharkleMinkus\_199, Darko\_196, Napoleon13\_195, SoilZilla\_193, Audrick\_200, Littleton\_200, ChickenPhender\_194, Breeniome\_196, Gabriel\_200, Domi\_191, Basquiat\_195, LookingGlass\_196, Sauce\_193, HyRo\_185, SmallFry\_197, FrayBell\_200, McGee\_197, InterFolia\_200, Turret\_191, BadAgartude\_191, EasyJones\_201, Janiyra\_201, ErnieJ\_190, Specks\_201, Phusco\_196, EmmaElysia\_200, IkeLoa\_189, Substance289\_194, Kamryn\_196, ChaylaJr\_195, Salacia\_197, Quasimodo\_200, EmToTheThree\_198, Wally\_196, BananaFence\_194, Bx21\_187, Chargie21\_195, Tyke\_195, Stubby\_182, Bangla1971\_197, Dietrick\_187, Trinitium\_194, LordLeafolot\_198, Grungle\_182, Rizal\_190, BackyardAgain\_194, YoungMoneyMata\_196, Cactojaque\_193, Matsumoto\_196, JustHall\_192, Spud\_192, Alice\_184, Rabinovish\_191, StephanieG\_194, Flabslab\_193, Fludd\_198, ShiaLabeouf\_194, Tainan\_198, CindyLou\_198, Jemmno\_196, Pier\_198, Jaygup\_193, Fongie\_198, Drazdys\_195, Shnickers\_195, DTDevon\_199, Tortoise16\_195, Ablatia\_197, BobaPhatt\_190, Kboogie\_201, Pupusa\_201, Shaqnato\_189, Jedediah\_197, Ghost\_197, Bowman\_195
- Track 2 : Cali\_191, QBert\_189
- Track 3 : Cane17\_189, Colt\_189, Blubba\_187
- Track 4 : McWolfish\_195, Nidhogg\_199, Roots515\_200, SilverDipper\_201, OrediggerDelux\_194, Daffodil\_202, Gizmo\_203, Babyland\_200, Willis\_198, Amataga\_198, Ading\_198, ZygoTaiga\_194, Khaleesi\_197, Phlegm\_201, Erdmann\_199, Zeenon\_200, Naval22\_205, MikeLiesIn\_199, Patter\_198, Capablanca\_202, Ngannou\_194, Naija\_198, Bread\_193, Delylah\_199, Bipolarisk\_196, Cleatunium\_191, Jezreel\_195, Melpomini\_192, Delilah\_196, Asterius\_199, Lethe\_198, Issimir\_191, Ava3\_196, Megamind\_195, Pinkcreek\_182, StubbySaigey\_202, InigoMontoya\_200, Izajani\_196, Yucca\_198, Mikro\_193, DeejaClivia\_186, Zalkecks\_197, Maby2021\_197, Moby\_194, Lee7\_198, Pivoine\_198, DrPhinkDaddy\_195, Fixie\_197, Pleione\_202, FudgeTart\_193, Dandelion\_205, PurduePete\_198, TinyTim\_196, Mangeria\_198, Chomp\_197, ScottMcG\_191, NoodleTree\_204, Rocha\_195, Gamgam\_198, ValleyTerrace\_198, FoxtrotP1\_196, Moiqah\_193, Dessert\_195, Atlantean\_197, GlutenPhree\_198, NedWong\_197, Ewok\_197, Momo\_198, Shelob\_199, Latch\_197, Jessibeth14\_198, Blackbrain\_195, Bonray\_200, YemiJoy2021\_198, ParkTD\_196, SrishMeg2525\_195, Loanshark\_195

- Track 5 : Shrimp\_199, Bigswole\_202, BigCity\_206, Grasshills\_205, Bezza\_186, Yassified\_194, MoMoMixon\_195, Concombre\_202, Halldule\_190, BeanWater\_189, CharlieB\_191, Primadonna\_192, ArcherS7\_197, Norm\_197, Demodog\_203, Blackdragon\_192, LRRHood\_190, Koguma\_196, EggyFarm\_206, Sprinklers\_195, Iota\_192, Caravan\_188, Phox\_198, Lukilu\_188, JigglyPuff\_204, ET08\_185, Nappy\_198, Ronan\_193
- Track 6 : Vortrix\_216
- Track 7 : DirtMonster\_191, JayJay\_200
- Track 8 : Astraea\_191
- Track 9 : I3\_207
- Track 10 : Duckfeet\_191
- Track 11 : SVoro\_193
- Track 12 : Maturis\_195, Montpel\_196, Lunareta\_196
- Track 13 : LinStu\_196, Sebata\_199
- Track 14 : Tonenili\_218
- Track 15 : Catera\_191
- Track 16 : Myrna\_182
- Track 17 : Greely\_187
- Track 18 : Phabba\_192
- Track 19 : JeanGrey\_68

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

The start number called the most often in the published annotations is 21, it was called in 177 of the 182 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_197, Ading\_198, Adlitam\_196, Alice\_184, Amataga\_198, ArcherS7\_197, Asterius\_199, Astraea\_191, Atlantean\_197, Audrick\_200, Ava3\_196, Babyland\_200, BackyardAgain\_194, BadAgartude\_191, BananaFence\_194, Bangla1971\_197, Basquiat\_195, BeanWater\_189, Belieber\_191, Bezza\_186, BigCity\_206, Bigswole\_202, Bipolarisk\_196, Blackbrain\_195, Blackdragon\_192, Blubba\_187, BobaPhatt\_190, Bonray\_200, Bowman\_195, Bread\_193, Breeniome\_196, Burrough\_199, Bxz1\_187, Cactojaque\_193, Cali\_191, Cane17\_189, Capablanca\_202, Caravan\_188, Catera\_191, Chargie21\_195, CharlieB\_191, ChaylaJr\_195, ChickenPhender\_194, Chomp\_197, CindyLou\_198, Cleatunium\_191, Colt\_189, Concombre\_202, DTDevon\_199, Daffodil\_202, Dandelion\_205, Darko\_196, DeejaClivia\_186, Delilah\_196, Delylah\_199, Demodog\_203, Derek\_194, Dessert\_195, Dietrick\_187, DirtMonster\_191, Domi\_191, DrPhinkDaddy\_195, Drazdys\_195, Duckfeet\_191, ET08\_185, EasyJones\_201, EggyFarm\_206, EmToTheThree\_198, EmmaElysia\_200, Erdmann\_199, ErnieJ\_190, Essence\_194, Ewok\_197, Fixie\_197, Flabslab\_193, Fludd\_198, Fongie\_198, FoxtrotP1\_196, FrayBell\_200, FudgeTart\_193, Gabriel\_200, Gamgam\_198, Ghost\_197, Gizmo\_203, GlutenPhree\_198, Grasshills\_205, Grungle\_182, Guwapp\_192, Halldule\_190, HyRo\_185, IkeLoa\_189, InigoMontoya\_200, InterFolia\_200, Iota\_192, Issimir\_191, Izajani\_196, JPickles\_193, Janiyra\_201, JayJay\_200, Jaygup\_193, Jedediah\_197, Jemmno\_196, Jessibeth14\_198, Jezreel\_195, JigglyPuff\_204, JulietS\_188, JustHall\_192, Kamryn\_196, Kboogie\_201, Khaleesi\_197, Koguma\_196, LRRHood\_190, Labradorite\_195, Latch\_197, Lee7\_198, Lethe\_198, LifeSavor\_196, LinStu\_196, Littleton\_200, Loanshark\_195, LolaVinca\_195, LookingGlass\_196,

LordLeafolot\_198, Lukilu\_188, Lunareta\_196, Maby2021\_197, Mangeria\_198, Matsumoto\_196, Maturis\_195, McGee\_197, McWolfish\_195, Megamind\_195, Melpomini\_192, MikeLiesIn\_199, Mikro\_193, MoMoMixon\_195, Moby\_194, Moiqah\_193, Momo\_198, Montpel\_196, Naija\_198, Napoleon13\_195, Nappy\_198, Naval22\_205, NedWong\_197, Ngannou\_194, Nidhogg\_199, NoodleTree\_204, Norm\_197, NuevoMundo\_200, OrediggerDelux\_194, ParkTD\_196, Patter\_198, PharkleMinkus\_199, Phlegm\_201, Phox\_198, Phusco\_196, Pier\_198, Pinkcreek\_182, Pio\_205, Pivoine\_198, Pleione\_202, Primadonna\_192, Pupusa\_201, PurduePete\_198, QBert\_189, Quasimodo\_200, Rabinovish\_191, Rahel\_198, Rizal\_190, RoMag\_192, Rocha\_195, Ronan\_193, Roots515\_200, SVoro\_193, Salacia\_197, Sauce\_193, ScottMcG\_191, Sebata\_199, Shaqnato\_189, Shelob\_199, ShiaLabeouf\_194, Shnickers\_195, Shrimp\_199, SilverDipper\_201, SmallFry\_197, SoilZilla\_193, Spec\_192, Specks\_201, Sprinklers\_195, Spud\_192, SrishMeg2525\_195, StephanieG\_194, StubbySaigey\_202, Stubby\_182, Substance289\_194, Tainan\_198, Teardrop\_194, TinyTim\_196, Tortoise16\_195, Trinitium\_194, Turret\_191, Tyke\_195, ValleyTerrace\_198, Wally\_196, Willis\_198, Yassified\_194, YemiJoy2021\_198, YoungMoneyMata\_196, Yucca\_198, Zalkecks\_197, Zeenon\_200, ZygoTaiga\_194,

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

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

- Greely\_187, I3\_207, JeanGrey\_68, Myrna\_182, Phabba\_192, Tonenili\_218, Vortrix\_216,

### Summary by start number:

Start 21:

- Found in 213 of 220 ( 96.8% ) of genes in pham
- Manual Annotations of this start: 177 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia\_197 (C1), Ading\_198 (C1), Adlitam\_196 (C1), Alice\_184 (C1), Amataga\_198 (C1), ArcherS7\_197 (C1), Asterius\_199 (C1), Astraea\_191 (C1), Atlantean\_197 (C1), Audrick\_200 (C1), Ava3\_196 (C1), Babyland\_200 (C1), BackyardAgain\_194 (C1), BadAgartude\_191 (C1), BananaFence\_194 (C1), Bangla1971\_197 (C1), Basquiat\_195 (C1), BeanWater\_189 (C1), Belieber\_191 (C1), Bezza\_186 (C1), BigCity\_206 (C1), Bigswole\_202 (C1), Bipolarisk\_196 (C1), Blackbrain\_195 (C1), Blackdragon\_192 (C1), Blubba\_187 (C1), BobaPhatt\_190 (C1), Bonray\_200 (C1), Bowman\_195 (C1), Bread\_193 (C1), Breeniome\_196 (C1), Burrough\_199 (C1), Bxz1\_187 (C1), Cactojaque\_193 (C1), Cali\_191 (C1), Cane17\_189 (C1), Capablanca\_202 (C1), Caravan\_188 (C1), Catera\_191 (C1), Chargie21\_195 (C1), CharlieB\_191 (C1), ChaylaJr\_195 (C1), ChickenPhender\_194 (C1), Chomp\_197 (C1), CindyLou\_198 (C1), Cleatunium\_191 (C1), Colt\_189 (C1), Concombre\_202 (C1), DTDevon\_199 (C1), Daffodil\_202 (C1), Dandelion\_205 (C1), Darko\_196 (C1), DeejaClivia\_186 (C1), Delilah\_196 (C1), Delylah\_199 (C1), Demodog\_203 (C1), Derek\_194 (C1), Dessert\_195 (C1), Dietrick\_187 (C1), DirtMonster\_191 (C1), Domi\_191 (C1), DrPhinkDaddy\_195 (C1), Drazdys\_195 (C1), Duckfeet\_191 (C1), ET08\_185 (C1), EasyJones\_201 (C1), EggyFarm\_206 (C1), EmToTheThree\_198 (C1), EmmaElysia\_200 (C1), Erdmann\_199 (C1), ErnieJ\_190 (C1), Essence\_194 (C1), Ewok\_197 (C1), Fixie\_197 (C1), Flabslab\_193 (C1), Fludd\_198 (C1), Fongie\_198 (C1), FoxtrotP1\_196 (C1), FrayBell\_200 (C1), FudgeTart\_193 (C1), Gabriel\_200 (C1),

Gamgam\_198 (C1), Ghost\_197 (C1), Gizmo\_203 (C1), GlutenPhree\_198 (C1), Grasshills\_205 (C1), Grungle\_182 (C1), Guwapp\_192 (C1), Halldule\_190 (C1), HyRo\_185 (C1), IkeLoa\_189 (C1), InigoMontoya\_200 (C1), InterFolia\_200 (C1), Iota\_192 (C1), Issimir\_191 (C1), Izajani\_196 (C1), JPickles\_193 (C1), Janiyra\_201 (C1), JayJay\_200 (C1), Jaygup\_193 (C1), Jedediah\_197 (C1), Jemmno\_196 (C1), Jessibeth14\_198 (C1), Jezreel\_195 (C1), JigglyPuff\_204 (C1), JulietS\_188 (C1), JustHall\_192 (C1), Kamryn\_196 (C1), Kboogie\_201 (C1), Khaleesi\_197 (C1), Koguma\_196 (C1), LRRHood\_190 (C1), Labradorite\_195 (C1), Latch\_197 (C1), Lee7\_198 (C1), Lethe\_198 (C1), LifeSavor\_196 (C1), LinStu\_196 (C1), Littleton\_200 (C1), Loanshark\_195 (C1), LolaVinca\_195 (C1), LookingGlass\_196 (C1), LordLeafolot\_198 (C1), Lukilu\_188 (C1), Lunareta\_196 (C1), Maby2021\_197 (C1), Mangeria\_198 (C1), Matsumoto\_196 (C1), Maturis\_195 (C1), McGee\_197 (C1), McWolfish\_195 (C1), Megamind\_195 (C1), Melpomini\_192 (C1), MikeLiesIn\_199 (C1), Mikro\_193 (C1), MoMoMixon\_195 (C1), Moby\_194 (C1), Moiqah\_193 (C1), Momo\_198 (C1), Montpel\_196 (C1), Naija\_198 (C1), Napoleon13\_195 (C1), Nappy\_198 (C1), Naval22\_205 (C1), NedWong\_197 (C1), Ngannou\_194 (C1), Nidhogg\_199 (C1), NoodleTree\_204 (C1), Norm\_197 (C1), NuevoMundo\_200 (C1), OrediggerDelux\_194 (C1), ParkTD\_196 (C1), Patter\_198 (C1), PharkleMinkus\_199 (C1), Phlegm\_201 (C1), Phox\_198 (C1), Phusco\_196 (C1), Pier\_198 (C1), Pinkcreek\_182 (C1), Pio\_205 (C1), Pivoine\_198 (C1), Pleione\_202 (C1), Primadonna\_192 (C1), Pupusa\_201 (C1), PurduePete\_198 (C1), QBert\_189 (C1), Quasimodo\_200 (C1), Rabinovish\_191 (C1), Rahel\_198 (C1), Rizal\_190 (C1), RoMag\_192 (C1), Rocha\_195 (C1), Ronan\_193 (C1), Roots515\_200 (C1), SVoro\_193 (C1), Salacia\_197 (C1), Sauce\_193 (C1), ScottMcG\_191 (C1), Sebata\_199 (C1), Shaqnato\_189 (C1), Shelob\_199 (C1), ShiaLabeouf\_194 (C1), Shnickers\_195 (C1), Shrimp\_199 (C1), SilverDipper\_201 (C1), SmallFry\_197 (C1), SoilZilla\_193 (C1), Spec\_192 (C1), Specks\_201 (C1), Sprinklers\_195 (C1), Spud\_192 (C1), SrishMeg2525\_195 (C1), StephanieG\_194 (C1), StubbySaigey\_202 (C1), Stubby\_182 (C1), Substance289\_194 (C1), Tainan\_198 (C1), Teardrop\_194 (C1), TinyTim\_196 (C1), Tortoise16\_195 (C1), Trinitium\_194 (C1), Turret\_191 (C1), Tyke\_195 (C1), ValleyTerrace\_198 (C1), Wally\_196 (C1), Willis\_198 (C1), Yassified\_194 (C1), YemiJoy2021\_198 (C1), YoungMoneyMata\_196 (C1), Yucca\_198 (C1), Zalkecks\_197 (C1), Zeenon\_200 (C1), ZygoTaiga\_194 (C1),

#### Start 22:

- Found in 3 of 220 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 2 of 182
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Myrna\_182 (C2), Phabba\_192 (C2),

#### Start 23:

- Found in 3 of 220 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Tonenili\_218 (C1), Vortrix\_216 (C1),

#### Start 24:

- Found in 1 of 220 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JeanGrey\_68 (singleton),

#### Start 25:

- Found in 3 of 220 ( 1.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Greely\_187 (C2),

Start 34:

- Found in 103 of 220 ( 46.8% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 1.0% of time when present
- Phage (with cluster) where this start called: I3\_207 (C1),

### **Summary by clusters:**

There are 3 clusters represented in this pham: C2, C1, singleton,

Info for manual annotations of cluster C1:

- Start number 21 was manually annotated 177 times for cluster C1.
- Start number 23 was manually annotated 1 time for cluster C1.
- Start number 34 was manually annotated 1 time for cluster C1.

Info for manual annotations of cluster C2:

- Start number 22 was manually annotated 2 times for cluster C2.

### **Gene Information:**

Gene: Ablatia\_197 Start: 105076, Stop: 105765, Start Num: 21

Candidate Starts for Ablatia\_197:

(9, 104833), (Start: 21 @105076 has 177 MA's), (28, 105169), (Start: 34 @105214 has 1 MA's), (42, 105313), (43, 105322), (48, 105427), (56, 105640), (58, 105676),

Gene: Ading\_198 Start: 105394, Stop: 106083, Start Num: 21

Candidate Starts for Ading\_198:

(7, 105109), (Start: 21 @105394 has 177 MA's), (28, 105487), (42, 105631), (43, 105640), (48, 105745), (56, 105958), (58, 105994),

Gene: Adlitam\_196 Start: 103998, Stop: 104687, Start Num: 21

Candidate Starts for Adlitam\_196:

(9, 103755), (Start: 21 @103998 has 177 MA's), (28, 104091), (Start: 34 @104136 has 1 MA's), (42, 104235), (43, 104244), (48, 104349), (56, 104562), (58, 104598),

Gene: Alice\_184 Start: 103966, Stop: 104655, Start Num: 21

Candidate Starts for Alice\_184:

(9, 103723), (Start: 21 @103966 has 177 MA's), (28, 104059), (Start: 34 @104104 has 1 MA's), (42, 104203), (43, 104212), (48, 104317), (56, 104530), (58, 104566),

Gene: Amataga\_198 Start: 103810, Stop: 104499, Start Num: 21

Candidate Starts for Amataga\_198:

(7, 103525), (Start: 21 @103810 has 177 MA's), (28, 103903), (42, 104047), (43, 104056), (48, 104161), (56, 104374), (58, 104410),

Gene: ArcherS7\_197 Start: 104852, Stop: 105541, Start Num: 21

Candidate Starts for ArcherS7\_197:

(Start: 21 @104852 has 177 MA's), (28, 104945), (29, 104948), (42, 105089), (43, 105098), (48, 105203), (56, 105416), (58, 105452),

Gene: Asterius\_199 Start: 104528, Stop: 105217, Start Num: 21

Candidate Starts for Asterius\_199:

(7, 104243), (Start: 21 @104528 has 177 MA's), (28, 104621), (42, 104765), (43, 104774), (48, 104879), (56, 105092), (58, 105128),

Gene: Astraea\_191 Start: 103416, Stop: 104105, Start Num: 21

Candidate Starts for Astraea\_191:

(9, 103173), (Start: 21 @103416 has 177 MA's), (28, 103509), (Start: 34 @103554 has 1 MA's), (42, 103653), (43, 103662), (48, 103767), (51, 103815), (56, 103980), (58, 104016),

Gene: Atlantean\_197 Start: 103810, Stop: 104499, Start Num: 21

Candidate Starts for Atlantean\_197:

(7, 103525), (Start: 21 @103810 has 177 MA's), (28, 103903), (42, 104047), (43, 104056), (48, 104161), (56, 104374), (58, 104410),

Gene: Audrick\_200 Start: 104009, Stop: 104698, Start Num: 21

Candidate Starts for Audrick\_200:

(9, 103766), (Start: 21 @104009 has 177 MA's), (28, 104102), (Start: 34 @104147 has 1 MA's), (42, 104246), (43, 104255), (48, 104360), (56, 104573), (58, 104609),

Gene: Ava3\_196 Start: 104553, Stop: 105242, Start Num: 21

Candidate Starts for Ava3\_196:

(7, 104268), (Start: 21 @104553 has 177 MA's), (28, 104646), (42, 104790), (43, 104799), (48, 104904), (56, 105117), (58, 105153),

Gene: Babyland\_200 Start: 104587, Stop: 105276, Start Num: 21

Candidate Starts for Babyland\_200:

(7, 104302), (Start: 21 @104587 has 177 MA's), (28, 104680), (42, 104824), (43, 104833), (48, 104938), (56, 105151), (58, 105187),

Gene: BackyardAgain\_194 Start: 102805, Stop: 103494, Start Num: 21

Candidate Starts for BackyardAgain\_194:

(9, 102562), (Start: 21 @102805 has 177 MA's), (28, 102898), (Start: 34 @102943 has 1 MA's), (42, 103042), (43, 103051), (48, 103156), (56, 103369), (58, 103405),

Gene: BadAgartude\_191 Start: 103909, Stop: 104598, Start Num: 21

Candidate Starts for BadAgartude\_191:

(9, 103666), (Start: 21 @103909 has 177 MA's), (28, 104002), (Start: 34 @104047 has 1 MA's), (42, 104146), (43, 104155), (48, 104260), (56, 104473), (58, 104509),

Gene: BananaFence\_194 Start: 104045, Stop: 104734, Start Num: 21

Candidate Starts for BananaFence\_194:

(9, 103802), (Start: 21 @104045 has 177 MA's), (28, 104138), (Start: 34 @104183 has 1 MA's), (42, 104282), (43, 104291), (48, 104396), (56, 104609), (58, 104645),

Gene: Bangla1971\_197 Start: 103816, Stop: 104505, Start Num: 21

Candidate Starts for Bangla1971\_197:

(9, 103573), (Start: 21 @103816 has 177 MA's), (28, 103909), (Start: 34 @103954 has 1 MA's), (42, 104053), (43, 104062), (48, 104167), (56, 104380), (58, 104416),

Gene: Basquiat\_195 Start: 103631, Stop: 104320, Start Num: 21

Candidate Starts for Basquiat\_195:

(9, 103388), (Start: 21 @103631 has 177 MA's), (28, 103724), (Start: 34 @103769 has 1 MA's), (42, 103868), (43, 103877), (48, 103982), (56, 104195), (58, 104231),

Gene: BeanWater\_189 Start: 103848, Stop: 104537, Start Num: 21

Candidate Starts for BeanWater\_189:

(Start: 21 @103848 has 177 MA's), (28, 103941), (29, 103944), (42, 104085), (43, 104094), (48, 104199), (56, 104412), (58, 104448),

Gene: Belieber\_191 Start: 102945, Stop: 103634, Start Num: 21

Candidate Starts for Belieber\_191:

(9, 102702), (Start: 21 @102945 has 177 MA's), (28, 103038), (Start: 34 @103083 has 1 MA's), (42, 103182), (43, 103191), (48, 103296), (56, 103509), (58, 103545),

Gene: Bezza\_186 Start: 104360, Stop: 105049, Start Num: 21

Candidate Starts for Bezza\_186:

(Start: 21 @104360 has 177 MA's), (28, 104453), (29, 104456), (42, 104597), (43, 104606), (48, 104711), (56, 104924), (58, 104960),

Gene: BigCity\_206 Start: 107419, Stop: 108108, Start Num: 21

Candidate Starts for BigCity\_206:

(Start: 21 @107419 has 177 MA's), (28, 107512), (29, 107515), (42, 107656), (43, 107665), (48, 107770), (56, 107983), (58, 108019),

Gene: Bigswole\_202 Start: 107270, Stop: 107959, Start Num: 21

Candidate Starts for Bigswole\_202:

(Start: 21 @107270 has 177 MA's), (28, 107363), (29, 107366), (42, 107507), (43, 107516), (48, 107621), (56, 107834), (58, 107870),

Gene: Bipolarisk\_196 Start: 104822, Stop: 105511, Start Num: 21

Candidate Starts for Bipolarisk\_196:

(7, 104537), (Start: 21 @104822 has 177 MA's), (28, 104915), (42, 105059), (43, 105068), (48, 105173), (56, 105386), (58, 105422),

Gene: Blackbrain\_195 Start: 104716, Stop: 105405, Start Num: 21

Candidate Starts for Blackbrain\_195:

(7, 104431), (Start: 21 @104716 has 177 MA's), (28, 104809), (42, 104953), (43, 104962), (48, 105067), (56, 105280), (58, 105316),

Gene: Blackdragon\_192 Start: 104146, Stop: 104835, Start Num: 21

Candidate Starts for Blackdragon\_192:

(Start: 21 @104146 has 177 MA's), (28, 104239), (29, 104242), (42, 104383), (43, 104392), (48, 104497), (56, 104710), (58, 104746),

Gene: Blubba\_187 Start: 108026, Stop: 108703, Start Num: 21

Candidate Starts for Blubba\_187:

(6, 107732), (8, 107747), (17, 108002), (Start: 21 @108026 has 177 MA's), (28, 108119), (29, 108122), (Start: 34 @108164 has 1 MA's), (44, 108272), (48, 108365), (56, 108578), (58, 108614),

Gene: BobaPhatt\_190 Start: 102830, Stop: 103519, Start Num: 21

Candidate Starts for BobaPhatt\_190:

(9, 102587), (Start: 21 @102830 has 177 MA's), (28, 102923), (Start: 34 @102968 has 1 MA's), (42, 103067), (43, 103076), (48, 103181), (56, 103394), (58, 103430),

Gene: Bonray\_200 Start: 106224, Stop: 106913, Start Num: 21

Candidate Starts for Bonray\_200:

(7, 105939), (Start: 21 @106224 has 177 MA's), (28, 106317), (42, 106461), (43, 106470), (48, 106575), (56, 106788), (58, 106824),

Gene: Bowman\_195 Start: 105022, Stop: 105711, Start Num: 21

Candidate Starts for Bowman\_195:

(9, 104779), (Start: 21 @105022 has 177 MA's), (28, 105115), (Start: 34 @105160 has 1 MA's), (42, 105259), (43, 105268), (48, 105373), (56, 105586), (58, 105622),

Gene: Bread\_193 Start: 104222, Stop: 104911, Start Num: 21

Candidate Starts for Bread\_193:

(7, 103937), (Start: 21 @104222 has 177 MA's), (28, 104315), (42, 104459), (43, 104468), (48, 104573), (56, 104786), (58, 104822),

Gene: Breeniome\_196 Start: 103367, Stop: 104056, Start Num: 21

Candidate Starts for Breeniome\_196:

(9, 103124), (Start: 21 @103367 has 177 MA's), (28, 103460), (Start: 34 @103505 has 1 MA's), (42, 103604), (43, 103613), (48, 103718), (56, 103931), (58, 103967),

Gene: Burrough\_199 Start: 105683, Stop: 106372, Start Num: 21

Candidate Starts for Burrough\_199:

(9, 105440), (Start: 21 @105683 has 177 MA's), (28, 105776), (Start: 34 @105821 has 1 MA's), (42, 105920), (43, 105929), (48, 106034), (56, 106247), (58, 106283),

Gene: Bxz1\_187 Start: 106882, Stop: 107571, Start Num: 21

Candidate Starts for Bxz1\_187:

(9, 106639), (Start: 21 @106882 has 177 MA's), (28, 106975), (Start: 34 @107020 has 1 MA's), (42, 107119), (43, 107128), (48, 107233), (56, 107446), (58, 107482),

Gene: Cactojaque\_193 Start: 103651, Stop: 104340, Start Num: 21

Candidate Starts for Cactojaque\_193:

(9, 103408), (Start: 21 @103651 has 177 MA's), (28, 103744), (Start: 34 @103789 has 1 MA's), (42, 103888), (43, 103897), (48, 104002), (56, 104215), (58, 104251),

Gene: Cali\_191 Start: 105598, Stop: 106287, Start Num: 21

Candidate Starts for Cali\_191:

(9, 104878), (18, 105313), (Start: 21 @105598 has 177 MA's), (28, 105691), (42, 105835), (43, 105844), (48, 105949), (56, 106162), (58, 106198),

Gene: Cane17\_189 Start: 108435, Stop: 109112, Start Num: 21

Candidate Starts for Cane17\_189:

(6, 108141), (8, 108156), (17, 108411), (Start: 21 @108435 has 177 MA's), (28, 108528), (29, 108531), (Start: 34 @108573 has 1 MA's), (44, 108681), (48, 108774), (56, 108987), (58, 109023),

Gene: Capablanca\_202 Start: 106819, Stop: 107508, Start Num: 21

Candidate Starts for Capablanca\_202:

(7, 106534), (Start: 21 @106819 has 177 MA's), (28, 106912), (42, 107056), (43, 107065), (48, 107170), (56, 107383), (58, 107419),

Gene: Caravan\_188 Start: 104630, Stop: 105319, Start Num: 21

Candidate Starts for Caravan\_188:

(Start: 21 @104630 has 177 MA's), (28, 104723), (29, 104726), (42, 104867), (43, 104876), (48, 104981), (56, 105194), (58, 105230),

Gene: Catera\_191 Start: 103332, Stop: 104021, Start Num: 21

Candidate Starts for Catera\_191:

(12, 103140), (13, 103194), (14, 103287), (16, 103293), (Start: 21 @103332 has 177 MA's), (28, 103425), (Start: 34 @103470 has 1 MA's), (42, 103569), (43, 103578), (48, 103683), (56, 103896), (58, 103932),

Gene: Chargie21\_195 Start: 103631, Stop: 104320, Start Num: 21

Candidate Starts for Chargie21\_195:

(9, 103388), (Start: 21 @103631 has 177 MA's), (28, 103724), (Start: 34 @103769 has 1 MA's), (42, 103868), (43, 103877), (48, 103982), (56, 104195), (58, 104231),

Gene: CharlieB\_191 Start: 104050, Stop: 104739, Start Num: 21

Candidate Starts for CharlieB\_191:

(Start: 21 @104050 has 177 MA's), (28, 104143), (29, 104146), (42, 104287), (43, 104296), (48, 104401), (56, 104614), (58, 104650),

Gene: ChaylaJr\_195 Start: 104059, Stop: 104748, Start Num: 21

Candidate Starts for ChaylaJr\_195:

(9, 103816), (Start: 21 @104059 has 177 MA's), (28, 104152), (Start: 34 @104197 has 1 MA's), (42, 104296), (43, 104305), (48, 104410), (56, 104623), (58, 104659),

Gene: ChickenPhender\_194 Start: 103778, Stop: 104467, Start Num: 21

Candidate Starts for ChickenPhender\_194:

(9, 103535), (Start: 21 @103778 has 177 MA's), (28, 103871), (Start: 34 @103916 has 1 MA's), (42, 104015), (43, 104024), (48, 104129), (56, 104342), (58, 104378),

Gene: Chomp\_197 Start: 105099, Stop: 105788, Start Num: 21

Candidate Starts for Chomp\_197:

(7, 104814), (Start: 21 @105099 has 177 MA's), (28, 105192), (42, 105336), (43, 105345), (48, 105450), (56, 105663), (58, 105699),

Gene: CindyLou\_198 Start: 105359, Stop: 106048, Start Num: 21

Candidate Starts for CindyLou\_198:

(9, 105116), (Start: 21 @105359 has 177 MA's), (28, 105452), (Start: 34 @105497 has 1 MA's), (42, 105596), (43, 105605), (48, 105710), (56, 105923), (58, 105959),

Gene: Cleatunium\_191 Start: 104051, Stop: 104740, Start Num: 21

Candidate Starts for Cleatunium\_191:

(7, 103766), (Start: 21 @104051 has 177 MA's), (28, 104144), (42, 104288), (43, 104297), (48, 104402), (56, 104615), (58, 104651),

Gene: Colt\_189 Start: 107666, Stop: 108343, Start Num: 21

Candidate Starts for Colt\_189:

(6, 107372), (8, 107387), (17, 107642), (Start: 21 @107666 has 177 MA's), (28, 107759), (29, 107762), (Start: 34 @107804 has 1 MA's), (44, 107912), (48, 108005), (56, 108218), (58, 108254),

Gene: Concombres\_202 Start: 106962, Stop: 107651, Start Num: 21

Candidate Starts for Concombres\_202:

(Start: 21 @106962 has 177 MA's), (28, 107055), (29, 107058), (42, 107199), (43, 107208), (48, 107313), (56, 107526), (58, 107562),

Gene: DTDevon\_199 Start: 105848, Stop: 106537, Start Num: 21

Candidate Starts for DTDevon\_199:

(9, 105605), (Start: 21 @105848 has 177 MA's), (28, 105941), (Start: 34 @105986 has 1 MA's), (42, 106085), (43, 106094), (48, 106199), (56, 106412), (58, 106448),

Gene: Daffodil\_202 Start: 105122, Stop: 105811, Start Num: 21

Candidate Starts for Daffodil\_202:

(7, 104837), (Start: 21 @105122 has 177 MA's), (28, 105215), (42, 105359), (43, 105368), (48, 105473), (56, 105686), (58, 105722),

Gene: Dandelion\_205 Start: 108755, Stop: 109444, Start Num: 21

Candidate Starts for Dandelion\_205:

(7, 108470), (Start: 21 @108755 has 177 MA's), (28, 108848), (42, 108992), (43, 109001), (48, 109106), (56, 109319), (58, 109355),

Gene: Darko\_196 Start: 104049, Stop: 104738, Start Num: 21

Candidate Starts for Darko\_196:

(9, 103806), (Start: 21 @104049 has 177 MA's), (28, 104142), (Start: 34 @104187 has 1 MA's), (42, 104286), (43, 104295), (48, 104400), (56, 104613), (58, 104649),

Gene: DeejaClivia\_186 Start: 103491, Stop: 104180, Start Num: 21

Candidate Starts for DeejaClivia\_186:

(7, 103206), (Start: 21 @103491 has 177 MA's), (28, 103584), (42, 103728), (43, 103737), (48, 103842), (56, 104055), (58, 104091),

Gene: Delilah\_196 Start: 105240, Stop: 105929, Start Num: 21

Candidate Starts for Delilah\_196:

(7, 104955), (Start: 21 @105240 has 177 MA's), (28, 105333), (42, 105477), (43, 105486), (48, 105591), (56, 105804), (58, 105840),

Gene: Delylah\_199 Start: 105220, Stop: 105909, Start Num: 21

Candidate Starts for Delylah\_199:

(7, 104935), (Start: 21 @105220 has 177 MA's), (28, 105313), (42, 105457), (43, 105466), (48, 105571), (56, 105784), (58, 105820),

Gene: Demodog\_203 Start: 106972, Stop: 107661, Start Num: 21

Candidate Starts for Demodog\_203:

(Start: 21 @106972 has 177 MA's), (28, 107065), (29, 107068), (42, 107209), (43, 107218), (48, 107323), (56, 107536), (58, 107572),

Gene: Derek\_194 Start: 104376, Stop: 105065, Start Num: 21

Candidate Starts for Derek\_194:

(9, 104133), (Start: 21 @104376 has 177 MA's), (28, 104469), (Start: 34 @104514 has 1 MA's), (42, 104613), (43, 104622), (48, 104727), (56, 104940), (58, 104976),

Gene: Dessert\_195 Start: 103376, Stop: 104065, Start Num: 21

Candidate Starts for Dessert\_195:

(7, 103091), (Start: 21 @103376 has 177 MA's), (28, 103469), (42, 103613), (43, 103622), (48, 103727), (56, 103940), (58, 103976),

Gene: Dietrick\_187 Start: 103361, Stop: 104050, Start Num: 21  
Candidate Starts for Dietrick\_187:  
(9, 103118), (Start: 21 @103361 has 177 MA's), (28, 103454), (Start: 34 @103499 has 1 MA's), (42, 103598), (43, 103607), (48, 103712), (56, 103925), (58, 103961),

Gene: DirtMonster\_191 Start: 104601, Stop: 105290, Start Num: 21  
Candidate Starts for DirtMonster\_191:  
(7, 104316), (15, 104562), (Start: 21 @104601 has 177 MA's), (28, 104694), (42, 104838), (43, 104847), (48, 104952), (56, 105165), (58, 105201),

Gene: Domi\_191 Start: 104403, Stop: 105092, Start Num: 21  
Candidate Starts for Domi\_191:  
(9, 104160), (Start: 21 @104403 has 177 MA's), (28, 104496), (Start: 34 @104541 has 1 MA's), (42, 104640), (43, 104649), (48, 104754), (56, 104967), (58, 105003),

Gene: DrPhinkDaddy\_195 Start: 105900, Stop: 106589, Start Num: 21  
Candidate Starts for DrPhinkDaddy\_195:  
(7, 105615), (Start: 21 @105900 has 177 MA's), (28, 105993), (42, 106137), (43, 106146), (48, 106251), (56, 106464), (58, 106500),

Gene: Drazdys\_195 Start: 104493, Stop: 105182, Start Num: 21  
Candidate Starts for Drazdys\_195:  
(9, 104250), (Start: 21 @104493 has 177 MA's), (28, 104586), (Start: 34 @104631 has 1 MA's), (42, 104730), (43, 104739), (48, 104844), (56, 105057), (58, 105093),

Gene: Duckfeet\_191 Start: 104019, Stop: 104708, Start Num: 21  
Candidate Starts for Duckfeet\_191:  
(9, 103776), (Start: 21 @104019 has 177 MA's), (28, 104112), (29, 104115), (42, 104256), (43, 104265), (48, 104370), (56, 104583), (58, 104619),

Gene: ET08\_185 Start: 104084, Stop: 104773, Start Num: 21  
Candidate Starts for ET08\_185:  
(Start: 21 @104084 has 177 MA's), (28, 104177), (29, 104180), (42, 104321), (43, 104330), (48, 104435), (56, 104648), (58, 104684),

Gene: EasyJones\_201 Start: 104874, Stop: 105563, Start Num: 21  
Candidate Starts for EasyJones\_201:  
(9, 104631), (Start: 21 @104874 has 177 MA's), (28, 104967), (Start: 34 @105012 has 1 MA's), (42, 105111), (43, 105120), (48, 105225), (56, 105438), (58, 105474),

Gene: EggyFarm\_206 Start: 107420, Stop: 108109, Start Num: 21  
Candidate Starts for EggyFarm\_206:  
(Start: 21 @107420 has 177 MA's), (28, 107513), (29, 107516), (42, 107657), (43, 107666), (48, 107771), (56, 107984), (58, 108020),

Gene: EmToTheThree\_198 Start: 105273, Stop: 105962, Start Num: 21  
Candidate Starts for EmToTheThree\_198:  
(9, 105030), (Start: 21 @105273 has 177 MA's), (28, 105366), (Start: 34 @105411 has 1 MA's), (42, 105510), (43, 105519), (48, 105624), (56, 105837), (58, 105873),

Gene: EmmaElysia\_200 Start: 104983, Stop: 105672, Start Num: 21  
Candidate Starts for EmmaElysia\_200:

(9, 104740), (Start: 21 @104983 has 177 MA's), (28, 105076), (Start: 34 @105121 has 1 MA's), (42, 105220), (43, 105229), (48, 105334), (56, 105547), (58, 105583),

Gene: Erdmann\_199 Start: 105231, Stop: 105920, Start Num: 21

Candidate Starts for Erdmann\_199:

(7, 104946), (Start: 21 @105231 has 177 MA's), (28, 105324), (42, 105468), (43, 105477), (48, 105582), (56, 105795), (58, 105831),

Gene: ErnieJ\_190 Start: 103053, Stop: 103742, Start Num: 21

Candidate Starts for ErnieJ\_190:

(9, 102810), (Start: 21 @103053 has 177 MA's), (28, 103146), (Start: 34 @103191 has 1 MA's), (42, 103290), (43, 103299), (48, 103404), (56, 103617), (58, 103653),

Gene: Essence\_194 Start: 103705, Stop: 104394, Start Num: 21

Candidate Starts for Essence\_194:

(9, 103462), (Start: 21 @103705 has 177 MA's), (28, 103798), (Start: 34 @103843 has 1 MA's), (42, 103942), (43, 103951), (48, 104056), (56, 104269), (58, 104305),

Gene: Ewok\_197 Start: 105150, Stop: 105839, Start Num: 21

Candidate Starts for Ewok\_197:

(7, 104865), (Start: 21 @105150 has 177 MA's), (28, 105243), (42, 105387), (43, 105396), (48, 105501), (56, 105714), (58, 105750),

Gene: Fixie\_197 Start: 104485, Stop: 105174, Start Num: 21

Candidate Starts for Fixie\_197:

(7, 104200), (Start: 21 @104485 has 177 MA's), (28, 104578), (42, 104722), (43, 104731), (48, 104836), (56, 105049), (58, 105085),

Gene: Flabslab\_193 Start: 103195, Stop: 103884, Start Num: 21

Candidate Starts for Flabslab\_193:

(9, 102952), (Start: 21 @103195 has 177 MA's), (28, 103288), (Start: 34 @103333 has 1 MA's), (42, 103432), (43, 103441), (48, 103546), (56, 103759), (58, 103795),

Gene: Fludd\_198 Start: 104586, Stop: 105275, Start Num: 21

Candidate Starts for Fludd\_198:

(9, 104343), (Start: 21 @104586 has 177 MA's), (28, 104679), (Start: 34 @104724 has 1 MA's), (42, 104823), (43, 104832), (48, 104937), (56, 105150), (58, 105186),

Gene: Fongie\_198 Start: 104864, Stop: 105553, Start Num: 21

Candidate Starts for Fongie\_198:

(9, 104621), (Start: 21 @104864 has 177 MA's), (28, 104957), (Start: 34 @105002 has 1 MA's), (42, 105101), (43, 105110), (48, 105215), (56, 105428), (58, 105464),

Gene: FoxtrotP1\_196 Start: 105830, Stop: 106519, Start Num: 21

Candidate Starts for FoxtrotP1\_196:

(7, 105545), (Start: 21 @105830 has 177 MA's), (28, 105923), (42, 106067), (43, 106076), (48, 106181), (56, 106394), (58, 106430),

Gene: FrayBell\_200 Start: 104368, Stop: 105057, Start Num: 21

Candidate Starts for FrayBell\_200:

(9, 104125), (Start: 21 @104368 has 177 MA's), (28, 104461), (Start: 34 @104506 has 1 MA's), (42, 104605), (43, 104614), (48, 104719), (56, 104932), (58, 104968),

Gene: FudgeTart\_193 Start: 104297, Stop: 104986, Start Num: 21

Candidate Starts for FudgeTart\_193:

(7, 104012), (Start: 21 @104297 has 177 MA's), (28, 104390), (42, 104534), (43, 104543), (48, 104648), (56, 104861), (58, 104897),

Gene: Gabriel\_200 Start: 103443, Stop: 104132, Start Num: 21

Candidate Starts for Gabriel\_200:

(9, 103200), (Start: 21 @103443 has 177 MA's), (28, 103536), (Start: 34 @103581 has 1 MA's), (42, 103680), (43, 103689), (48, 103794), (56, 104007), (58, 104043),

Gene: Gamgam\_198 Start: 103800, Stop: 104489, Start Num: 21

Candidate Starts for Gamgam\_198:

(7, 103515), (Start: 21 @103800 has 177 MA's), (28, 103893), (42, 104037), (43, 104046), (48, 104151), (56, 104364), (58, 104400),

Gene: Ghost\_197 Start: 104030, Stop: 104719, Start Num: 21

Candidate Starts for Ghost\_197:

(9, 103787), (Start: 21 @104030 has 177 MA's), (28, 104123), (Start: 34 @104168 has 1 MA's), (42, 104267), (43, 104276), (48, 104381), (56, 104594), (58, 104630),

Gene: Gizmo\_203 Start: 107148, Stop: 107837, Start Num: 21

Candidate Starts for Gizmo\_203:

(7, 106863), (Start: 21 @107148 has 177 MA's), (28, 107241), (42, 107385), (43, 107394), (48, 107499), (56, 107712), (58, 107748),

Gene: GlutenPhree\_198 Start: 103811, Stop: 104500, Start Num: 21

Candidate Starts for GlutenPhree\_198:

(7, 103526), (Start: 21 @103811 has 177 MA's), (28, 103904), (42, 104048), (43, 104057), (48, 104162), (56, 104375), (58, 104411),

Gene: Grasshills\_205 Start: 107419, Stop: 108108, Start Num: 21

Candidate Starts for Grasshills\_205:

(Start: 21 @107419 has 177 MA's), (28, 107512), (29, 107515), (42, 107656), (43, 107665), (48, 107770), (56, 107983), (58, 108019),

Gene: Greely\_187 Start: 102022, Stop: 102657, Start Num: 25

Candidate Starts for Greely\_187:

(19, 101896), (20, 101998), (Start: 22 @102007 has 2 MA's), (25, 102022), (26, 102073), (27, 102088), (31, 102115), (35, 102163), (36, 102175), (38, 102208), (45, 102271), (47, 102325), (48, 102355), (50, 102400), (55, 102466),

Gene: Grungle\_182 Start: 102067, Stop: 102756, Start Num: 21

Candidate Starts for Grungle\_182:

(9, 101824), (Start: 21 @102067 has 177 MA's), (28, 102160), (Start: 34 @102205 has 1 MA's), (42, 102304), (43, 102313), (48, 102418), (56, 102631), (58, 102667),

Gene: Guwapp\_192 Start: 102555, Stop: 103244, Start Num: 21

Candidate Starts for Guwapp\_192:

(9, 102312), (Start: 21 @102555 has 177 MA's), (28, 102648), (Start: 34 @102693 has 1 MA's), (42, 102792), (43, 102801), (48, 102906), (56, 103119), (58, 103155),

Gene: Halldule\_190 Start: 102940, Stop: 103629, Start Num: 21

Candidate Starts for Halldule\_190:

(Start: 21 @102940 has 177 MA's), (28, 103033), (29, 103036), (42, 103177), (43, 103186), (48, 103291), (56, 103504), (58, 103540),

Gene: HyRo\_185 Start: 104064, Stop: 104753, Start Num: 21

Candidate Starts for HyRo\_185:

(9, 103821), (Start: 21 @104064 has 177 MA's), (28, 104157), (Start: 34 @104202 has 1 MA's), (42, 104301), (43, 104310), (48, 104415), (56, 104628), (58, 104664),

Gene: I3\_207 Start: 106932, Stop: 107489, Start Num: 34

Candidate Starts for I3\_207:

(1, 106434), (2, 106458), (5, 106479), (10, 106575), (11, 106605), (Start: 23 @106797 has 1 MA's), (Start: 34 @106932 has 1 MA's), (35, 106950), (36, 106962), (37, 106992), (42, 107040), (52, 107199), (54, 107217), (57, 107394), (59, 107406),

Gene: IkeLoa\_189 Start: 103462, Stop: 104151, Start Num: 21

Candidate Starts for IkeLoa\_189:

(9, 103219), (Start: 21 @103462 has 177 MA's), (28, 103555), (Start: 34 @103600 has 1 MA's), (42, 103699), (43, 103708), (48, 103813), (56, 104026), (58, 104062),

Gene: InigoMontoya\_200 Start: 104474, Stop: 105163, Start Num: 21

Candidate Starts for InigoMontoya\_200:

(7, 104189), (Start: 21 @104474 has 177 MA's), (28, 104567), (42, 104711), (43, 104720), (48, 104825), (56, 105038), (58, 105074),

Gene: InterFolia\_200 Start: 106174, Stop: 106863, Start Num: 21

Candidate Starts for InterFolia\_200:

(9, 105931), (Start: 21 @106174 has 177 MA's), (28, 106267), (Start: 34 @106312 has 1 MA's), (42, 106411), (43, 106420), (48, 106525), (56, 106738), (58, 106774),

Gene: Iota\_192 Start: 104159, Stop: 104848, Start Num: 21

Candidate Starts for Iota\_192:

(Start: 21 @104159 has 177 MA's), (28, 104252), (29, 104255), (42, 104396), (43, 104405), (48, 104510), (56, 104723), (58, 104759),

Gene: Issimir\_191 Start: 104421, Stop: 105110, Start Num: 21

Candidate Starts for Issimir\_191:

(7, 104136), (Start: 21 @104421 has 177 MA's), (28, 104514), (42, 104658), (43, 104667), (48, 104772), (56, 104985), (58, 105021),

Gene: Izajani\_196 Start: 105290, Stop: 105979, Start Num: 21

Candidate Starts for Izajani\_196:

(7, 105005), (Start: 21 @105290 has 177 MA's), (28, 105383), (42, 105527), (43, 105536), (48, 105641), (56, 105854), (58, 105890),

Gene: JPickles\_193 Start: 102459, Stop: 103148, Start Num: 21

Candidate Starts for JPickles\_193:

(9, 102216), (Start: 21 @102459 has 177 MA's), (28, 102552), (Start: 34 @102597 has 1 MA's), (42, 102696), (43, 102705), (48, 102810), (56, 103023), (58, 103059),

Gene: Janiyra\_201 Start: 105008, Stop: 105697, Start Num: 21

Candidate Starts for Janiyra\_201:

(9, 104765), (Start: 21 @105008 has 177 MA's), (28, 105101), (Start: 34 @105146 has 1 MA's), (42, 105245), (43, 105254), (48, 105359), (56, 105572), (58, 105608),

Gene: JayJay\_200 Start: 105705, Stop: 106394, Start Num: 21

Candidate Starts for JayJay\_200:

(7, 105420), (15, 105666), (Start: 21 @105705 has 177 MA's), (28, 105798), (42, 105942), (43, 105951), (48, 106056), (56, 106269), (58, 106305),

Gene: Jaygup\_193 Start: 103520, Stop: 104209, Start Num: 21

Candidate Starts for Jaygup\_193:

(9, 103277), (Start: 21 @103520 has 177 MA's), (28, 103613), (Start: 34 @103658 has 1 MA's), (42, 103757), (43, 103766), (48, 103871), (56, 104084), (58, 104120),

Gene: JeanGrey\_68 Start: 53439, Stop: 54056, Start Num: 24

Candidate Starts for JeanGrey\_68:

(Start: 24 @53439 has 1 MA's), (30, 53532), (31, 53541), (32, 53550), (39, 53637), (41, 53646), (57, 53967), (60, 54015),

Gene: Jedediah\_197 Start: 104573, Stop: 105262, Start Num: 21

Candidate Starts for Jedediah\_197:

(9, 104330), (Start: 21 @104573 has 177 MA's), (28, 104666), (Start: 34 @104711 has 1 MA's), (42, 104810), (43, 104819), (48, 104924), (56, 105137), (58, 105173),

Gene: Jemmno\_196 Start: 103402, Stop: 104091, Start Num: 21

Candidate Starts for Jemmno\_196:

(9, 103159), (Start: 21 @103402 has 177 MA's), (28, 103495), (Start: 34 @103540 has 1 MA's), (42, 103639), (43, 103648), (48, 103753), (56, 103966), (58, 104002),

Gene: Jessibeth14\_198 Start: 105899, Stop: 106588, Start Num: 21

Candidate Starts for Jessibeth14\_198:

(7, 105614), (Start: 21 @105899 has 177 MA's), (28, 105992), (42, 106136), (43, 106145), (48, 106250), (56, 106463), (58, 106499),

Gene: Jezreel\_195 Start: 104968, Stop: 105657, Start Num: 21

Candidate Starts for Jezreel\_195:

(7, 104683), (Start: 21 @104968 has 177 MA's), (28, 105061), (42, 105205), (43, 105214), (48, 105319), (56, 105532), (58, 105568),

Gene: JigglyPuff\_204 Start: 106970, Stop: 107659, Start Num: 21

Candidate Starts for JigglyPuff\_204:

(Start: 21 @106970 has 177 MA's), (28, 107063), (29, 107066), (42, 107207), (43, 107216), (48, 107321), (56, 107534), (58, 107570),

Gene: JulietS\_188 Start: 101691, Stop: 102380, Start Num: 21

Candidate Starts for JulietS\_188:

(9, 101448), (Start: 21 @101691 has 177 MA's), (28, 101784), (Start: 34 @101829 has 1 MA's), (42, 101928), (43, 101937), (48, 102042), (56, 102255), (58, 102291),

Gene: JustHall\_192 Start: 103915, Stop: 104604, Start Num: 21

Candidate Starts for JustHall\_192:

(9, 103672), (Start: 21 @103915 has 177 MA's), (28, 104008), (Start: 34 @104053 has 1 MA's), (42, 104152), (43, 104161), (48, 104266), (56, 104479), (58, 104515),

Gene: Kamryn\_196 Start: 105236, Stop: 105925, Start Num: 21

Candidate Starts for Kamryn\_196:

(9, 104993), (Start: 21 @105236 has 177 MA's), (28, 105329), (Start: 34 @105374 has 1 MA's), (42, 105473), (43, 105482), (48, 105587), (56, 105800), (58, 105836),

Gene: Kboogie\_201 Start: 104573, Stop: 105262, Start Num: 21

Candidate Starts for Kboogie\_201:

(9, 104330), (Start: 21 @104573 has 177 MA's), (28, 104666), (Start: 34 @104711 has 1 MA's), (42, 104810), (43, 104819), (48, 104924), (56, 105137), (58, 105173),

Gene: Khaleesi\_197 Start: 105366, Stop: 106055, Start Num: 21

Candidate Starts for Khaleesi\_197:

(7, 105081), (Start: 21 @105366 has 177 MA's), (28, 105459), (42, 105603), (43, 105612), (48, 105717), (56, 105930), (58, 105966),

Gene: Koguma\_196 Start: 103917, Stop: 104606, Start Num: 21

Candidate Starts for Koguma\_196:

(Start: 21 @103917 has 177 MA's), (28, 104010), (29, 104013), (42, 104154), (43, 104163), (48, 104268), (56, 104481), (58, 104517),

Gene: LRRHood\_190 Start: 104262, Stop: 104951, Start Num: 21

Candidate Starts for LRRHood\_190:

(Start: 21 @104262 has 177 MA's), (28, 104355), (29, 104358), (42, 104499), (43, 104508), (48, 104613), (56, 104826), (58, 104862),

Gene: Labradorite\_195 Start: 103012, Stop: 103701, Start Num: 21

Candidate Starts for Labradorite\_195:

(9, 102769), (Start: 21 @103012 has 177 MA's), (28, 103105), (Start: 34 @103150 has 1 MA's), (42, 103249), (43, 103258), (48, 103363), (56, 103576), (58, 103612),

Gene: Latch\_197 Start: 103810, Stop: 104499, Start Num: 21

Candidate Starts for Latch\_197:

(7, 103525), (Start: 21 @103810 has 177 MA's), (28, 103903), (42, 104047), (43, 104056), (48, 104161), (56, 104374), (58, 104410),

Gene: Lee7\_198 Start: 106746, Stop: 107435, Start Num: 21

Candidate Starts for Lee7\_198:

(7, 106461), (Start: 21 @106746 has 177 MA's), (28, 106839), (42, 106983), (43, 106992), (48, 107097), (56, 107310), (58, 107346),

Gene: Lethe\_198 Start: 106009, Stop: 106698, Start Num: 21

Candidate Starts for Lethe\_198:

(7, 105724), (Start: 21 @106009 has 177 MA's), (28, 106102), (42, 106246), (43, 106255), (48, 106360), (56, 106573), (58, 106609),

Gene: LifeSavor\_196 Start: 104335, Stop: 105024, Start Num: 21

Candidate Starts for LifeSavor\_196:

(9, 104092), (Start: 21 @104335 has 177 MA's), (28, 104428), (Start: 34 @104473 has 1 MA's), (42, 104572), (43, 104581), (48, 104686), (56, 104899), (58, 104935),

Gene: LinStu\_196 Start: 104858, Stop: 105547, Start Num: 21

Candidate Starts for LinStu\_196:

(3, 104042), (9, 104138), (18, 104573), (Start: 21 @104858 has 177 MA's), (28, 104951), (42, 105095), (43, 105104), (48, 105209), (56, 105422), (58, 105458),

Gene: Littleton\_200 Start: 105047, Stop: 105736, Start Num: 21  
Candidate Starts for Littleton\_200:  
(9, 104804), (Start: 21 @105047 has 177 MA's), (28, 105140), (Start: 34 @105185 has 1 MA's), (42, 105284), (43, 105293), (48, 105398), (56, 105611), (58, 105647),

Gene: Loanshark\_195 Start: 104681, Stop: 105370, Start Num: 21  
Candidate Starts for Loanshark\_195:  
(7, 104396), (Start: 21 @104681 has 177 MA's), (28, 104774), (42, 104918), (43, 104927), (48, 105032), (56, 105245), (58, 105281),

Gene: LolaVinca\_195 Start: 105604, Stop: 106293, Start Num: 21  
Candidate Starts for LolaVinca\_195:  
(9, 105361), (Start: 21 @105604 has 177 MA's), (28, 105697), (Start: 34 @105742 has 1 MA's), (42, 105841), (43, 105850), (48, 105955), (56, 106168), (58, 106204),

Gene: LookingGlass\_196 Start: 104564, Stop: 105253, Start Num: 21  
Candidate Starts for LookingGlass\_196:  
(9, 104321), (Start: 21 @104564 has 177 MA's), (28, 104657), (Start: 34 @104702 has 1 MA's), (42, 104801), (43, 104810), (48, 104915), (56, 105128), (58, 105164),

Gene: LordLeafolot\_198 Start: 105216, Stop: 105905, Start Num: 21  
Candidate Starts for LordLeafolot\_198:  
(9, 104973), (Start: 21 @105216 has 177 MA's), (28, 105309), (Start: 34 @105354 has 1 MA's), (42, 105453), (43, 105462), (48, 105567), (56, 105780), (58, 105816),

Gene: Lukilu\_188 Start: 105272, Stop: 105961, Start Num: 21  
Candidate Starts for Lukilu\_188:  
(Start: 21 @105272 has 177 MA's), (28, 105365), (29, 105368), (42, 105509), (43, 105518), (48, 105623), (56, 105836), (58, 105872),

Gene: Lunareta\_196 Start: 106217, Stop: 106906, Start Num: 21  
Candidate Starts for Lunareta\_196:  
(4, 105884), (9, 105974), (Start: 21 @106217 has 177 MA's), (28, 106310), (Start: 34 @106355 has 1 MA's), (42, 106454), (43, 106463), (48, 106568), (56, 106781), (58, 106817),

Gene: Maby2021\_197 Start: 105810, Stop: 106499, Start Num: 21  
Candidate Starts for Maby2021\_197:  
(7, 105525), (Start: 21 @105810 has 177 MA's), (28, 105903), (42, 106047), (43, 106056), (48, 106161), (56, 106374), (58, 106410),

Gene: Mangeria\_198 Start: 105603, Stop: 106292, Start Num: 21  
Candidate Starts for Mangeria\_198:  
(7, 105318), (Start: 21 @105603 has 177 MA's), (28, 105696), (42, 105840), (43, 105849), (48, 105954), (56, 106167), (58, 106203),

Gene: Matsumoto\_196 Start: 104561, Stop: 105250, Start Num: 21  
Candidate Starts for Matsumoto\_196:  
(9, 104318), (Start: 21 @104561 has 177 MA's), (28, 104654), (Start: 34 @104699 has 1 MA's), (42, 104798), (43, 104807), (48, 104912), (56, 105125), (58, 105161),

Gene: Maturis\_195 Start: 105073, Stop: 105762, Start Num: 21  
Candidate Starts for Maturis\_195:

(4, 104740), (9, 104830), (Start: 21 @105073 has 177 MA's), (28, 105166), (Start: 34 @105211 has 1 MA's), (42, 105310), (43, 105319), (48, 105424), (56, 105637), (58, 105673),

Gene: McGee\_197 Start: 103755, Stop: 104444, Start Num: 21

Candidate Starts for McGee\_197:

(9, 103512), (Start: 21 @103755 has 177 MA's), (28, 103848), (Start: 34 @103893 has 1 MA's), (42, 103992), (43, 104001), (48, 104106), (56, 104319), (58, 104355),

Gene: McWolfish\_195 Start: 104577, Stop: 105266, Start Num: 21

Candidate Starts for McWolfish\_195:

(7, 104292), (Start: 21 @104577 has 177 MA's), (28, 104670), (42, 104814), (43, 104823), (48, 104928), (56, 105141), (58, 105177),

Gene: Megamind\_195 Start: 104868, Stop: 105557, Start Num: 21

Candidate Starts for Megamind\_195:

(7, 104583), (Start: 21 @104868 has 177 MA's), (28, 104961), (42, 105105), (43, 105114), (48, 105219), (56, 105432), (58, 105468),

Gene: Melpomini\_192 Start: 103344, Stop: 104033, Start Num: 21

Candidate Starts for Melpomini\_192:

(7, 103059), (Start: 21 @103344 has 177 MA's), (28, 103437), (42, 103581), (43, 103590), (48, 103695), (56, 103908), (58, 103944),

Gene: MikeLiesIn\_199 Start: 106004, Stop: 106693, Start Num: 21

Candidate Starts for MikeLiesIn\_199:

(7, 105719), (Start: 21 @106004 has 177 MA's), (28, 106097), (42, 106241), (43, 106250), (48, 106355), (56, 106568), (58, 106604),

Gene: Mikro\_193 Start: 106244, Stop: 106933, Start Num: 21

Candidate Starts for Mikro\_193:

(7, 105959), (Start: 21 @106244 has 177 MA's), (28, 106337), (42, 106481), (43, 106490), (48, 106595), (56, 106808), (58, 106844),

Gene: MoMoMixon\_195 Start: 104734, Stop: 105423, Start Num: 21

Candidate Starts for MoMoMixon\_195:

(Start: 21 @104734 has 177 MA's), (28, 104827), (29, 104830), (42, 104971), (43, 104980), (48, 105085), (56, 105298), (58, 105334),

Gene: Moby\_194 Start: 104018, Stop: 104707, Start Num: 21

Candidate Starts for Moby\_194:

(7, 103733), (Start: 21 @104018 has 177 MA's), (28, 104111), (42, 104255), (43, 104264), (48, 104369), (56, 104582), (58, 104618),

Gene: Moiqah\_193 Start: 103995, Stop: 104684, Start Num: 21

Candidate Starts for Moiqah\_193:

(7, 103710), (Start: 21 @103995 has 177 MA's), (28, 104088), (42, 104232), (43, 104241), (48, 104346), (56, 104559), (58, 104595),

Gene: Momo\_198 Start: 103810, Stop: 104499, Start Num: 21

Candidate Starts for Momo\_198:

(7, 103525), (Start: 21 @103810 has 177 MA's), (28, 103903), (42, 104047), (43, 104056), (48, 104161), (56, 104374), (58, 104410),

Gene: Montpel\_196 Start: 106215, Stop: 106904, Start Num: 21

Candidate Starts for Montpel\_196:

(4, 105882), (9, 105972), (Start: 21 @106215 has 177 MA's), (28, 106308), (Start: 34 @106353 has 1 MA's), (42, 106452), (43, 106461), (48, 106566), (56, 106779), (58, 106815),

Gene: Myrna\_182 Start: 101680, Stop: 102324, Start Num: 22

Candidate Starts for Myrna\_182:

(20, 101671), (Start: 22 @101680 has 2 MA's), (25, 101695), (26, 101746), (33, 101809), (35, 101836), (36, 101848), (38, 101881), (54, 102091), (55, 102133),

Gene: Naija\_198 Start: 104513, Stop: 105202, Start Num: 21

Candidate Starts for Naija\_198:

(7, 104228), (Start: 21 @104513 has 177 MA's), (28, 104606), (42, 104750), (43, 104759), (48, 104864), (56, 105077), (58, 105113),

Gene: Napoleon13\_195 Start: 103850, Stop: 104539, Start Num: 21

Candidate Starts for Napoleon13\_195:

(9, 103607), (Start: 21 @103850 has 177 MA's), (28, 103943), (Start: 34 @103988 has 1 MA's), (42, 104087), (43, 104096), (48, 104201), (56, 104414), (58, 104450),

Gene: Nappy\_198 Start: 106206, Stop: 106895, Start Num: 21

Candidate Starts for Nappy\_198:

(Start: 21 @106206 has 177 MA's), (28, 106299), (29, 106302), (42, 106443), (43, 106452), (48, 106557), (56, 106770), (58, 106806),

Gene: Naval22\_205 Start: 106599, Stop: 107288, Start Num: 21

Candidate Starts for Naval22\_205:

(7, 106314), (Start: 21 @106599 has 177 MA's), (28, 106692), (42, 106836), (43, 106845), (48, 106950), (56, 107163), (58, 107199),

Gene: NedWong\_197 Start: 105255, Stop: 105944, Start Num: 21

Candidate Starts for NedWong\_197:

(7, 104970), (Start: 21 @105255 has 177 MA's), (28, 105348), (42, 105492), (43, 105501), (48, 105606), (56, 105819), (58, 105855),

Gene: Ngannou\_194 Start: 102792, Stop: 103481, Start Num: 21

Candidate Starts for Ngannou\_194:

(7, 102507), (Start: 21 @102792 has 177 MA's), (28, 102885), (42, 103029), (43, 103038), (48, 103143), (56, 103356), (58, 103392),

Gene: Nidhogg\_199 Start: 105648, Stop: 106337, Start Num: 21

Candidate Starts for Nidhogg\_199:

(7, 105363), (Start: 21 @105648 has 177 MA's), (28, 105741), (42, 105885), (43, 105894), (48, 105999), (56, 106212), (58, 106248),

Gene: NoodleTree\_204 Start: 105555, Stop: 106244, Start Num: 21

Candidate Starts for NoodleTree\_204:

(7, 105270), (Start: 21 @105555 has 177 MA's), (28, 105648), (42, 105792), (43, 105801), (48, 105906), (56, 106119), (58, 106155),

Gene: Norm\_197 Start: 105248, Stop: 105937, Start Num: 21

Candidate Starts for Norm\_197:

(Start: 21 @105248 has 177 MA's), (28, 105341), (29, 105344), (42, 105485), (43, 105494), (48, 105599), (56, 105812), (58, 105848),

Gene: NuevoMundo\_200 Start: 106800, Stop: 107489, Start Num: 21

Candidate Starts for NuevoMundo\_200:

(9, 106557), (Start: 21 @106800 has 177 MA's), (28, 106893), (Start: 34 @106938 has 1 MA's), (42, 107037), (43, 107046), (48, 107151), (56, 107364), (58, 107400),

Gene: OrediggerDelux\_194 Start: 105787, Stop: 106476, Start Num: 21

Candidate Starts for OrediggerDelux\_194:

(7, 105502), (Start: 21 @105787 has 177 MA's), (28, 105880), (42, 106024), (43, 106033), (48, 106138), (56, 106351), (58, 106387),

Gene: ParkTD\_196 Start: 105119, Stop: 105808, Start Num: 21

Candidate Starts for ParkTD\_196:

(7, 104834), (Start: 21 @105119 has 177 MA's), (28, 105212), (42, 105356), (43, 105365), (48, 105470), (56, 105683), (58, 105719),

Gene: Patter\_198 Start: 103824, Stop: 104513, Start Num: 21

Candidate Starts for Patter\_198:

(7, 103539), (Start: 21 @103824 has 177 MA's), (28, 103917), (42, 104061), (43, 104070), (48, 104175), (56, 104388), (58, 104424),

Gene: Phabba\_192 Start: 101582, Stop: 102232, Start Num: 22

Candidate Starts for Phabba\_192:

(20, 101573), (Start: 22 @101582 has 2 MA's), (25, 101597), (26, 101648), (27, 101663), (31, 101690), (35, 101738), (36, 101750), (38, 101783), (45, 101846), (47, 101900), (48, 101930), (55, 102041),

Gene: PharkleMinkus\_199 Start: 104367, Stop: 105056, Start Num: 21

Candidate Starts for PharkleMinkus\_199:

(9, 104124), (Start: 21 @104367 has 177 MA's), (28, 104460), (Start: 34 @104505 has 1 MA's), (42, 104604), (43, 104613), (48, 104718), (56, 104931), (58, 104967),

Gene: Phlegm\_201 Start: 104513, Stop: 105202, Start Num: 21

Candidate Starts for Phlegm\_201:

(7, 104228), (Start: 21 @104513 has 177 MA's), (28, 104606), (42, 104750), (43, 104759), (48, 104864), (56, 105077), (58, 105113),

Gene: Phox\_198 Start: 105468, Stop: 106157, Start Num: 21

Candidate Starts for Phox\_198:

(Start: 21 @105468 has 177 MA's), (28, 105561), (29, 105564), (42, 105705), (43, 105714), (48, 105819), (56, 106032), (58, 106068),

Gene: Phusco\_196 Start: 103654, Stop: 104343, Start Num: 21

Candidate Starts for Phusco\_196:

(9, 103411), (Start: 21 @103654 has 177 MA's), (28, 103747), (Start: 34 @103792 has 1 MA's), (42, 103891), (43, 103900), (48, 104005), (56, 104218), (58, 104254),

Gene: Pier\_198 Start: 106342, Stop: 107031, Start Num: 21

Candidate Starts for Pier\_198:

(9, 106099), (Start: 21 @106342 has 177 MA's), (28, 106435), (Start: 34 @106480 has 1 MA's), (42, 106579), (43, 106588), (48, 106693), (56, 106906), (58, 106942),

Gene: Pinkcreek\_182 Start: 104030, Stop: 104719, Start Num: 21  
Candidate Starts for Pinkcreek\_182:  
(7, 103745), (Start: 21 @104030 has 177 MA's), (28, 104123), (42, 104267), (43, 104276), (48, 104381), (56, 104594), (58, 104630),

Gene: Pio\_205 Start: 107537, Stop: 108226, Start Num: 21  
Candidate Starts for Pio\_205:  
(9, 107294), (Start: 21 @107537 has 177 MA's), (28, 107630), (Start: 34 @107675 has 1 MA's), (42, 107774), (43, 107783), (48, 107888), (56, 108101), (58, 108137),

Gene: Pivoine\_198 Start: 104513, Stop: 105202, Start Num: 21  
Candidate Starts for Pivoine\_198:  
(7, 104228), (Start: 21 @104513 has 177 MA's), (28, 104606), (42, 104750), (43, 104759), (48, 104864), (56, 105077), (58, 105113),

Gene: Pleione\_202 Start: 105597, Stop: 106286, Start Num: 21  
Candidate Starts for Pleione\_202:  
(7, 105312), (Start: 21 @105597 has 177 MA's), (28, 105690), (42, 105834), (43, 105843), (48, 105948), (56, 106161), (58, 106197),

Gene: Primadonna\_192 Start: 104174, Stop: 104863, Start Num: 21  
Candidate Starts for Primadonna\_192:  
(Start: 21 @104174 has 177 MA's), (28, 104267), (29, 104270), (42, 104411), (43, 104420), (48, 104525), (56, 104738), (58, 104774),

Gene: Pupusa\_201 Start: 105842, Stop: 106531, Start Num: 21  
Candidate Starts for Pupusa\_201:  
(9, 105599), (Start: 21 @105842 has 177 MA's), (28, 105935), (Start: 34 @105980 has 1 MA's), (42, 106079), (43, 106088), (48, 106193), (56, 106406), (58, 106442),

Gene: PurduePete\_198 Start: 105825, Stop: 106514, Start Num: 21  
Candidate Starts for PurduePete\_198:  
(7, 105540), (Start: 21 @105825 has 177 MA's), (28, 105918), (42, 106062), (43, 106071), (48, 106176), (56, 106389), (58, 106425),

Gene: QBert\_189 Start: 103869, Stop: 104558, Start Num: 21  
Candidate Starts for QBert\_189:  
(9, 103149), (18, 103584), (Start: 21 @103869 has 177 MA's), (28, 103962), (42, 104106), (43, 104115), (48, 104220), (56, 104433), (58, 104469),

Gene: Quasimodo\_200 Start: 105448, Stop: 106137, Start Num: 21  
Candidate Starts for Quasimodo\_200:  
(9, 105205), (Start: 21 @105448 has 177 MA's), (28, 105541), (Start: 34 @105586 has 1 MA's), (42, 105685), (43, 105694), (48, 105799), (56, 106012), (58, 106048),

Gene: Rabinovish\_191 Start: 105723, Stop: 106412, Start Num: 21  
Candidate Starts for Rabinovish\_191:  
(9, 105480), (Start: 21 @105723 has 177 MA's), (28, 105816), (Start: 34 @105861 has 1 MA's), (42, 105960), (43, 105969), (48, 106074), (56, 106287), (58, 106323),

Gene: Rahel\_198 Start: 104248, Stop: 104937, Start Num: 21  
Candidate Starts for Rahel\_198:

(9, 104005), (Start: 21 @104248 has 177 MA's), (28, 104341), (Start: 34 @104386 has 1 MA's), (42, 104485), (43, 104494), (48, 104599), (56, 104812), (58, 104848),

Gene: Rizal\_190 Start: 103075, Stop: 103764, Start Num: 21

Candidate Starts for Rizal\_190:

(9, 102832), (Start: 21 @103075 has 177 MA's), (28, 103168), (Start: 34 @103213 has 1 MA's), (42, 103312), (43, 103321), (48, 103426), (56, 103639), (58, 103675),

Gene: RoMag\_192 Start: 104559, Stop: 105248, Start Num: 21

Candidate Starts for RoMag\_192:

(9, 104316), (Start: 21 @104559 has 177 MA's), (28, 104652), (Start: 34 @104697 has 1 MA's), (42, 104796), (43, 104805), (48, 104910), (56, 105123), (58, 105159),

Gene: Rocha\_195 Start: 104310, Stop: 104999, Start Num: 21

Candidate Starts for Rocha\_195:

(7, 104025), (Start: 21 @104310 has 177 MA's), (28, 104403), (42, 104547), (43, 104556), (48, 104661), (56, 104874), (58, 104910),

Gene: Ronan\_193 Start: 102951, Stop: 103640, Start Num: 21

Candidate Starts for Ronan\_193:

(Start: 21 @102951 has 177 MA's), (28, 103044), (29, 103047), (42, 103188), (43, 103197), (48, 103302), (56, 103515), (58, 103551),

Gene: Roots515\_200 Start: 106376, Stop: 107065, Start Num: 21

Candidate Starts for Roots515\_200:

(7, 106091), (Start: 21 @106376 has 177 MA's), (28, 106469), (42, 106613), (43, 106622), (48, 106727), (56, 106940), (58, 106976),

Gene: SVoro\_193 Start: 104860, Stop: 105549, Start Num: 21

Candidate Starts for SVoro\_193:

(9, 104617), (Start: 21 @104860 has 177 MA's), (28, 104953), (42, 105097), (43, 105106), (48, 105211), (56, 105424), (58, 105460),

Gene: Salacia\_197 Start: 104651, Stop: 105340, Start Num: 21

Candidate Starts for Salacia\_197:

(9, 104408), (Start: 21 @104651 has 177 MA's), (28, 104744), (Start: 34 @104789 has 1 MA's), (42, 104888), (43, 104897), (48, 105002), (56, 105215), (58, 105251),

Gene: Sauce\_193 Start: 103465, Stop: 104154, Start Num: 21

Candidate Starts for Sauce\_193:

(9, 103222), (Start: 21 @103465 has 177 MA's), (28, 103558), (Start: 34 @103603 has 1 MA's), (42, 103702), (43, 103711), (48, 103816), (56, 104029), (58, 104065),

Gene: ScottMcG\_191 Start: 103581, Stop: 104270, Start Num: 21

Candidate Starts for ScottMcG\_191:

(7, 103296), (Start: 21 @103581 has 177 MA's), (28, 103674), (42, 103818), (43, 103827), (48, 103932), (56, 104145), (58, 104181),

Gene: Sebata\_199 Start: 106283, Stop: 106972, Start Num: 21

Candidate Starts for Sebata\_199:

(3, 105467), (9, 105563), (18, 105998), (Start: 21 @106283 has 177 MA's), (28, 106376), (42, 106520), (43, 106529), (48, 106634), (56, 106847), (58, 106883),

Gene: Shaqnato\_189 Start: 103991, Stop: 104680, Start Num: 21  
Candidate Starts for Shaqnato\_189:  
(9, 103748), (Start: 21 @103991 has 177 MA's), (28, 104084), (Start: 34 @104129 has 1 MA's), (42, 104228), (43, 104237), (48, 104342), (56, 104555), (58, 104591),

Gene: Shelob\_199 Start: 106731, Stop: 107420, Start Num: 21  
Candidate Starts for Shelob\_199:  
(7, 106446), (Start: 21 @106731 has 177 MA's), (28, 106824), (42, 106968), (43, 106977), (48, 107082), (56, 107295), (58, 107331),

Gene: ShiaLabeouf\_194 Start: 103456, Stop: 104145, Start Num: 21  
Candidate Starts for ShiaLabeouf\_194:  
(9, 103213), (Start: 21 @103456 has 177 MA's), (28, 103549), (Start: 34 @103594 has 1 MA's), (42, 103693), (43, 103702), (48, 103807), (56, 104020), (58, 104056),

Gene: Shnickers\_195 Start: 103520, Stop: 104209, Start Num: 21  
Candidate Starts for Shnickers\_195:  
(9, 103277), (Start: 21 @103520 has 177 MA's), (28, 103613), (Start: 34 @103658 has 1 MA's), (42, 103757), (43, 103766), (48, 103871), (56, 104084), (58, 104120),

Gene: Shrimp\_199 Start: 105577, Stop: 106266, Start Num: 21  
Candidate Starts for Shrimp\_199:  
(Start: 21 @105577 has 177 MA's), (28, 105670), (29, 105673), (42, 105814), (43, 105823), (48, 105928), (56, 106141), (58, 106177),

Gene: SilverDipper\_201 Start: 105069, Stop: 105758, Start Num: 21  
Candidate Starts for SilverDipper\_201:  
(7, 104784), (Start: 21 @105069 has 177 MA's), (28, 105162), (42, 105306), (43, 105315), (48, 105420), (56, 105633), (58, 105669),

Gene: SmallFry\_197 Start: 103614, Stop: 104303, Start Num: 21  
Candidate Starts for SmallFry\_197:  
(9, 103371), (Start: 21 @103614 has 177 MA's), (28, 103707), (Start: 34 @103752 has 1 MA's), (42, 103851), (43, 103860), (48, 103965), (56, 104178), (58, 104214),

Gene: SoilZilla\_193 Start: 104476, Stop: 105165, Start Num: 21  
Candidate Starts for SoilZilla\_193:  
(9, 104233), (Start: 21 @104476 has 177 MA's), (28, 104569), (Start: 34 @104614 has 1 MA's), (42, 104713), (43, 104722), (48, 104827), (56, 105040), (58, 105076),

Gene: Spec\_192 Start: 103805, Stop: 104494, Start Num: 21  
Candidate Starts for Spec\_192:  
(9, 103562), (Start: 21 @103805 has 177 MA's), (28, 103898), (Start: 34 @103943 has 1 MA's), (42, 104042), (43, 104051), (48, 104156), (56, 104369), (58, 104405),

Gene: Specks\_201 Start: 105923, Stop: 106612, Start Num: 21  
Candidate Starts for Specks\_201:  
(9, 105680), (Start: 21 @105923 has 177 MA's), (28, 106016), (Start: 34 @106061 has 1 MA's), (42, 106160), (43, 106169), (48, 106274), (56, 106487), (58, 106523),

Gene: Sprinklers\_195 Start: 104172, Stop: 104861, Start Num: 21  
Candidate Starts for Sprinklers\_195:

(Start: 21 @104172 has 177 MA's), (28, 104265), (29, 104268), (42, 104409), (43, 104418), (48, 104523), (56, 104736), (58, 104772),

Gene: Spud\_192 Start: 104193, Stop: 104882, Start Num: 21

Candidate Starts for Spud\_192:

(9, 103950), (Start: 21 @104193 has 177 MA's), (28, 104286), (Start: 34 @104331 has 1 MA's), (42, 104430), (43, 104439), (48, 104544), (56, 104757), (58, 104793),

Gene: SrishMeg2525\_195 Start: 105357, Stop: 106046, Start Num: 21

Candidate Starts for SrishMeg2525\_195:

(7, 105072), (Start: 21 @105357 has 177 MA's), (28, 105450), (42, 105594), (43, 105603), (48, 105708), (56, 105921), (58, 105957),

Gene: StephanieG\_194 Start: 105388, Stop: 106077, Start Num: 21

Candidate Starts for StephanieG\_194:

(9, 105145), (Start: 21 @105388 has 177 MA's), (28, 105481), (Start: 34 @105526 has 1 MA's), (42, 105625), (43, 105634), (48, 105739), (56, 105952), (58, 105988),

Gene: Stubby\_182 Start: 104233, Stop: 104922, Start Num: 21

Candidate Starts for Stubby\_182:

(9, 103990), (Start: 21 @104233 has 177 MA's), (28, 104326), (Start: 34 @104371 has 1 MA's), (42, 104470), (43, 104479), (48, 104584), (56, 104797), (58, 104833),

Gene: StubbySaigey\_202 Start: 104603, Stop: 105292, Start Num: 21

Candidate Starts for StubbySaigey\_202:

(7, 104318), (Start: 21 @104603 has 177 MA's), (28, 104696), (42, 104840), (43, 104849), (48, 104954), (56, 105167), (58, 105203),

Gene: Substance289\_194 Start: 103662, Stop: 104351, Start Num: 21

Candidate Starts for Substance289\_194:

(9, 103419), (Start: 21 @103662 has 177 MA's), (28, 103755), (Start: 34 @103800 has 1 MA's), (42, 103899), (43, 103908), (48, 104013), (56, 104226), (58, 104262),

Gene: Tainan\_198 Start: 104942, Stop: 105631, Start Num: 21

Candidate Starts for Tainan\_198:

(9, 104699), (Start: 21 @104942 has 177 MA's), (28, 105035), (Start: 34 @105080 has 1 MA's), (42, 105179), (43, 105188), (48, 105293), (56, 105506), (58, 105542),

Gene: Teardrop\_194 Start: 103118, Stop: 103807, Start Num: 21

Candidate Starts for Teardrop\_194:

(9, 102875), (Start: 21 @103118 has 177 MA's), (28, 103211), (Start: 34 @103256 has 1 MA's), (42, 103355), (43, 103364), (48, 103469), (56, 103682), (58, 103718),

Gene: TinyTim\_196 Start: 104206, Stop: 104895, Start Num: 21

Candidate Starts for TinyTim\_196:

(7, 103921), (Start: 21 @104206 has 177 MA's), (28, 104299), (42, 104443), (43, 104452), (48, 104557), (56, 104770), (58, 104806),

Gene: Tonenili\_218 Start: 110509, Stop: 111189, Start Num: 23

Candidate Starts for Tonenili\_218:

(1, 110146), (2, 110170), (5, 110191), (10, 110287), (11, 110317), (Start: 23 @110509 has 1 MA's), (Start: 34 @110644 has 1 MA's), (35, 110662), (36, 110674), (37, 110704), (40, 110722), (43, 110755), (46, 110782), (49, 110866), (53, 110905), (54, 110917), (57, 111094), (59, 111106),

Gene: Tortoise16\_195 Start: 104359, Stop: 105048, Start Num: 21

Candidate Starts for Tortoise16\_195:

(9, 104116), (Start: 21 @104359 has 177 MA's), (28, 104452), (Start: 34 @104497 has 1 MA's), (42, 104596), (43, 104605), (48, 104710), (56, 104923), (58, 104959),

Gene: Trinitium\_194 Start: 103953, Stop: 104642, Start Num: 21

Candidate Starts for Trinitium\_194:

(9, 103710), (Start: 21 @103953 has 177 MA's), (28, 104046), (Start: 34 @104091 has 1 MA's), (42, 104190), (43, 104199), (48, 104304), (56, 104517), (58, 104553),

Gene: Turret\_191 Start: 103535, Stop: 104224, Start Num: 21

Candidate Starts for Turret\_191:

(9, 103292), (Start: 21 @103535 has 177 MA's), (28, 103628), (Start: 34 @103673 has 1 MA's), (42, 103772), (43, 103781), (48, 103886), (56, 104099), (58, 104135),

Gene: Tyke\_195 Start: 105726, Stop: 106415, Start Num: 21

Candidate Starts for Tyke\_195:

(9, 105483), (Start: 21 @105726 has 177 MA's), (28, 105819), (Start: 34 @105864 has 1 MA's), (42, 105963), (43, 105972), (48, 106077), (56, 106290), (58, 106326),

Gene: ValleyTerrace\_198 Start: 103810, Stop: 104499, Start Num: 21

Candidate Starts for ValleyTerrace\_198:

(7, 103525), (Start: 21 @103810 has 177 MA's), (28, 103903), (42, 104047), (43, 104056), (48, 104161), (56, 104374), (58, 104410),

Gene: Vortrix\_216 Start: 109296, Stop: 109976, Start Num: 23

Candidate Starts for Vortrix\_216:

(6, 108981), (8, 108996), (10, 109074), (11, 109104), (Start: 23 @109296 has 1 MA's), (Start: 34 @109431 has 1 MA's), (35, 109449), (36, 109461), (37, 109491), (40, 109509), (43, 109542), (46, 109569), (49, 109653), (53, 109692), (54, 109704), (57, 109881), (59, 109893),

Gene: Wally\_196 Start: 104103, Stop: 104792, Start Num: 21

Candidate Starts for Wally\_196:

(9, 103860), (Start: 21 @104103 has 177 MA's), (28, 104196), (Start: 34 @104241 has 1 MA's), (42, 104340), (43, 104349), (48, 104454), (56, 104667), (58, 104703),

Gene: Willis\_198 Start: 105017, Stop: 105706, Start Num: 21

Candidate Starts for Willis\_198:

(7, 104732), (Start: 21 @105017 has 177 MA's), (28, 105110), (42, 105254), (43, 105263), (48, 105368), (56, 105581), (58, 105617),

Gene: Yassified\_194 Start: 104149, Stop: 104838, Start Num: 21

Candidate Starts for Yassified\_194:

(Start: 21 @104149 has 177 MA's), (28, 104242), (29, 104245), (42, 104386), (43, 104395), (48, 104500), (56, 104713), (58, 104749),

Gene: YemiJoy2021\_198 Start: 105773, Stop: 106462, Start Num: 21

Candidate Starts for YemiJoy2021\_198:

(7, 105488), (Start: 21 @105773 has 177 MA's), (28, 105866), (42, 106010), (43, 106019), (48, 106124), (56, 106337), (58, 106373),

Gene: YoungMoneyMata\_196 Start: 104315, Stop: 105004, Start Num: 21

Candidate Starts for YoungMoneyMata\_196:

(9, 104072), (Start: 21 @104315 has 177 MA's), (28, 104408), (Start: 34 @104453 has 1 MA's), (42, 104552), (43, 104561), (48, 104666), (56, 104879), (58, 104915),

Gene: Yucca\_198 Start: 105765, Stop: 106454, Start Num: 21

Candidate Starts for Yucca\_198:

(7, 105480), (Start: 21 @105765 has 177 MA's), (28, 105858), (42, 106002), (43, 106011), (48, 106116), (56, 106329), (58, 106365),

Gene: Zalkecks\_197 Start: 104846, Stop: 105535, Start Num: 21

Candidate Starts for Zalkecks\_197:

(7, 104561), (Start: 21 @104846 has 177 MA's), (28, 104939), (42, 105083), (43, 105092), (48, 105197), (56, 105410), (58, 105446),

Gene: Zeenon\_200 Start: 105417, Stop: 106106, Start Num: 21

Candidate Starts for Zeenon\_200:

(7, 105132), (Start: 21 @105417 has 177 MA's), (28, 105510), (42, 105654), (43, 105663), (48, 105768), (56, 105981), (58, 106017),

Gene: ZygoTaiga\_194 Start: 106037, Stop: 106726, Start Num: 21

Candidate Starts for ZygoTaiga\_194:

(7, 105752), (Start: 21 @106037 has 177 MA's), (28, 106130), (42, 106274), (43, 106283), (48, 106388), (56, 106601), (58, 106637),