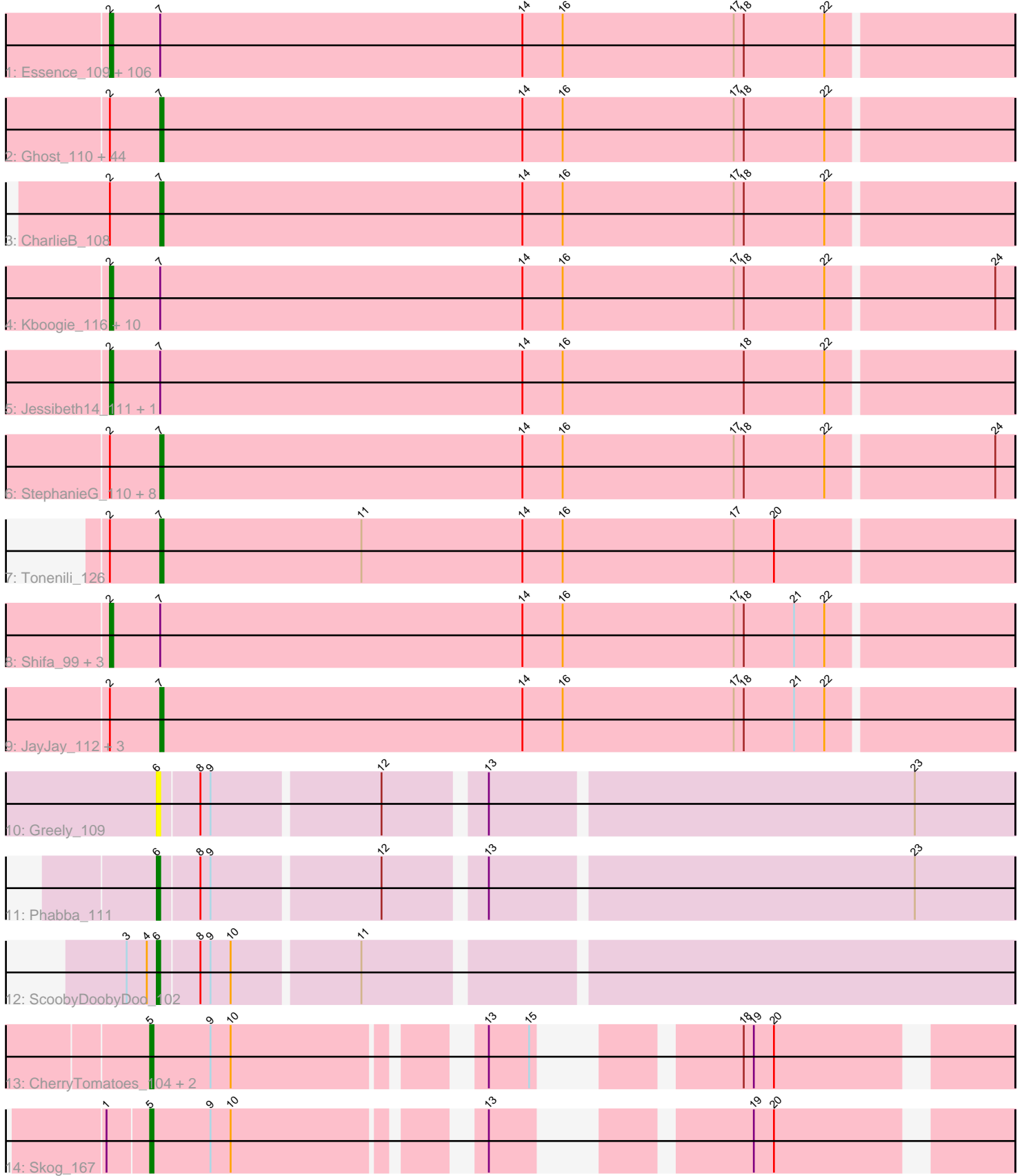


Pham 171221



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 171221 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171221 has 191 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Essence\_109, I3\_117, ValleyTerrace\_112, Bipolarisk\_111, BadAgartude\_108, Naija\_111, FudgeTart\_110, LRRHood\_105, Audrick\_114, YemiJoy2021\_113, Basquiat\_108, CindyLou\_113, ShiaLabeouf\_111, Ewok\_113, Rizal\_107, Khaleesi\_111, Colt\_103, Delilah\_112, EasyJones\_114, NedWong\_113, ArcherS7\_111, Pivoine\_111, Melpomini\_106, Shaqnato\_105, DTDevon\_112, Grasshills\_118, SrishMeg2525\_111, ErnieJ\_106, Loanshark\_111, Megamind\_111, Erdmann\_112, DirtMonster\_106, Yassified\_109, Derek\_111, Quasimodo\_113, EggyFarm\_119, LolaVinca\_112, ET08\_100, Gizmo\_116, Sauce\_112, Shelob\_114, Ading\_112, Rahel\_111, BackyardAgain\_109, Mangeria\_112, Patter\_112, Amataga\_112, Maby2021\_112, Cali\_107, Napoleon13\_108, Capablanca\_114, TinyTim\_112, ZygoTaiga\_110, Breeniome\_111, Burrough\_112, Pier\_116, Atlantean\_111, MikeLiesIn\_113, Cane17\_102, Bonray\_112, Flabslab\_106, JustHall\_109, Zeenon\_113, Nidhogg\_113, DrPhinkDaddy\_111, SmallFry\_112, Jedediah\_115, Ngannou\_108, Specks\_117, Koguma\_109, Adlitam\_112, Latch\_112, Ava3\_113, IkeLoa\_105, JulietS\_106, Shnickers\_112, Norm\_113, Chargie21\_108, Phusco\_112, ParkTD\_113, EmmaElysia\_112, Roots515\_110, FrayBell\_117, Phox\_109, Fludd\_112, Tyke\_112, Lukilu\_102, Spud\_111, Zalkecks\_113, McWolfish\_110, PurduePete\_112, BigCity\_119, Pio\_116, QBert\_106, Iota\_107, BeanWater\_104, LifeSavor\_110, Yucca\_111, Babyland\_113, Teardrop\_111, Gabriel\_112, FoxtrotP1\_112, Darko\_112, JPickles\_109, SilverDipper\_113, Concombre\_117, Daffodil\_117
- Track 2 : Ghost\_110, Caravan\_106, LordLeafolot\_115, Dietrick\_104, Gamgam\_112, Jaygup\_112, Drazdys\_110, InterFolia\_118, Blackdragon\_107, Naval22\_116, Delylah\_115, Sebata\_112, Bigswole\_115, Astraea\_108, Halldule\_105, Spec\_107, Mikro\_109, Issimir\_110, Shrimp\_112, Matsumoto\_108, Blubba\_103, Momo\_111, Sprinklers\_108, MoMoMixon\_112, Janiyra\_114, Phlegm\_114, Nappy\_114, Rabinovish\_109, YoungMoneyMata\_113, Guwapp\_111, Bread\_111, InigoMontoya\_113, Morizzled23\_112, Jemmno\_112, BananaFence\_111, Pleione\_115, Salacia\_116, Ronan\_106, Lee7\_109, NuevoMundo\_117, Grungle\_99, Bangla1971\_113, Bxz1\_109, Izajani\_112, Willis\_113
- Track 3 : CharlieB\_108
- Track 4 : Kboogie\_116, ChaylaJr\_107, ChickenPhender\_108, RoMag\_107, Kamryn\_112, McGee\_114, Blackbrain\_107, StubbySaigey\_115, Tortoise16\_109, Wally\_111, Turret\_107
- Track 5 : Jessibeth14\_111, Stubby\_104
- Track 6 : StephanieG\_110, Trinitium\_109, ScottMcG\_108, Asterius\_108, Littleton\_112, Chomp\_109, Catera\_108, NoodleTree\_119, Cactojaque\_107

- Track 7 : Tonenili\_126
- Track 8 : Shifa\_99, Pinkcreek\_103, EmToTheThree\_114, Dandelion\_117
- Track 9 : JayJay\_112, HyRo\_102, LinStu\_110, Alice\_104
- Track 10 : Greely\_109
- Track 11 : Phabba\_111
- Track 12 : ScoobyDoobyDoo\_102
- Track 13 : CherryTomatoes\_104, Pupper\_104, SCentae\_103
- Track 14 : Skog\_167

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

The start number called the most often in the published annotations is 2, it was called in 119 of the 173 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading\_112, Adlitam\_112, Amataga\_112, ArcherS7\_111, Atlantean\_111, Audrick\_114, Ava3\_113, Babyland\_113, BackyardAgain\_109, BadAgartude\_108, Basquiat\_108, BeanWater\_104, BigCity\_119, Bipolarisk\_111, Blackbrain\_107, Bonray\_112, Breeniome\_111, Burrough\_112, Cali\_107, Cane17\_102, Capablanca\_114, Chargie21\_108, ChaylaJr\_107, ChickenPhender\_108, CindyLou\_113, Colt\_103, Concombre\_117, DTDevon\_112, Daffodil\_117, Dandelion\_117, Darko\_112, Delilah\_112, Derek\_111, DirtMonster\_106, DrPhinkDaddy\_111, ET08\_100, EasyJones\_114, EggyFarm\_119, EmToTheThree\_114, EmmaElysia\_112, Erdmann\_112, ErnieJ\_106, Essence\_109, Ewok\_113, Flabslab\_106, Fludd\_112, FoxtrotP1\_112, FrayBell\_117, FudgeTart\_110, Gabriel\_112, Gizmo\_116, Grasshills\_118, I3\_117, IkeLoa\_105, Iota\_107, JPickles\_109, Jedediah\_115, Jessibeth14\_111, JulietS\_106, JustHall\_109, Kamryn\_112, Kboogie\_116, Khaleesi\_111, Koguma\_109, LRRHood\_105, Latch\_112, LifeSavor\_110, Loanshark\_111, LolaVinca\_112, Lukilu\_102, Maby2021\_112, Mangeria\_112, McGee\_114, McWolfish\_110, Megamind\_111, Melpomini\_106, MikeLiesIn\_113, Naija\_111, Napoleon13\_108, NedWong\_113, Ngannou\_108, Nidhogg\_113, Norm\_113, ParkTD\_113, Patter\_112, Phox\_109, Phusco\_112, Pier\_116, Pinkcreek\_103, Pio\_116, Pivoine\_111, PurduePete\_112, QBert\_106, Quasimodo\_113, Rahel\_111, Rizal\_107, RoMag\_107, Roots515\_110, Sauce\_112, Shaq nato\_105, Shelob\_114, ShiaLabeouf\_111, Shifa\_99, Shnickers\_112, SilverDipper\_113, SmallFry\_112, Specks\_117, Spud\_111, SrishMeg2525\_111, StubbySaigey\_115, Stubby\_104, Teardrop\_111, TinyTim\_112, Tortoise16\_109, Turret\_107, Tyke\_112, ValleyTerrace\_112, Wally\_111, Yassified\_109, YemiJoy2021\_113, Yucca\_111, Zalkecks\_113, Zeenon\_113, ZygoTaiga\_110,

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

- Alice\_104, Asterius\_108, Astraea\_108, BananaFence\_111, Bangla1971\_113, Bigswole\_115, Blackdragon\_107, Blubba\_103, Bread\_111, Bxz1\_109, Cactojaque\_107, Caravan\_106, Catera\_108, CharlieB\_108, Chomp\_109, Delylah\_115, Dietrick\_104, Drazdys\_110, Gangam\_112, Ghost\_110, Grungle\_99, Guwapp\_111, Halldule\_105, HyRo\_102, InigoMontoya\_113, InterFolia\_118, Issimir\_110, Izajani\_112, Janiyra\_114, JayJay\_112, Jaygup\_112, Jemmno\_112, Lee7\_109, LinStu\_110, Littleton\_112, LordLeafolot\_115, Matsumoto\_108, Mikro\_109, MoMoMixon\_112, Momo\_111, Morizzled23\_112, Nappy\_114, Naval22\_116, NoodleTree\_119, NuevoMundo\_117, Phlegm\_114, Pleione\_115, Rabinovish\_109,

Ronan\_106, Salacia\_116, ScottMcG\_108, Sebata\_112, Shrimp\_112, Spec\_107, Sprinklers\_108, StephanieG\_110, Tonenili\_126, Trinitium\_109, Willis\_113, YoungMoneyMata\_113,

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

- CherryTomatoes\_104, Greely\_109, Phabba\_111, Pupper\_104, SCentae\_103, ScoobyDoobyDoo\_102, Skog\_167,

### Summary by start number:

Start 2:

- Found in 184 of 191 ( 96.3% ) of genes in pham
- Manual Annotations of this start: 119 of 173
- Called 67.4% of time when present
- Phage (with cluster) where this start called: Ading\_112 (C1), Adlitam\_112 (C1), Amataga\_112 (C1), ArcherS7\_111 (C1), Atlantean\_111 (C1), Audrick\_114 (C1), Ava3\_113 (C1), Babyland\_113 (C1), BackyardAgain\_109 (C1), BadAgartude\_108 (C1), Basquiat\_108 (C1), BeanWater\_104 (C1), BigCity\_119 (C1), Bipolarisk\_111 (C1), Blackbrain\_107 (C1), Bonray\_112 (C1), Breeniome\_111 (C1), Burrough\_112 (C1), Cali\_107 (C1), Cane17\_102 (C1), Capablanca\_114 (C1), Chargie21\_108 (C1), ChaylaJr\_107 (C1), ChickenPhender\_108 (C1), CindyLou\_113 (C1), Colt\_103 (C1), Concombre\_117 (C1), DTDevon\_112 (C1), Daffodil\_117 (C1), Dandelion\_117 (C1), Darko\_112 (C1), Delilah\_112 (C1), Derek\_111 (C1), DirtMonster\_106 (C1), DrPhinkDaddy\_111 (C1), ET08\_100 (C1), EasyJones\_114 (C1), EggyFarm\_119 (C1), EmToTheThree\_114 (C1), EmmaElysia\_112 (C1), Erdmann\_112 (C1), ErnieJ\_106 (C1), Essence\_109 (C1), Ewok\_113 (C1), Flabslab\_106 (C1), Fludd\_112 (C1), FoxtrotP1\_112 (C1), FrayBell\_117 (C1), FudgeTart\_110 (C1), Gabriel\_112 (C1), Gizmo\_116 (C1), Grasshills\_118 (C1), I3\_117 (C1), IkeLoa\_105 (C1), Iota\_107 (C1), JPickles\_109 (C1), Jedediah\_115 (C1), Jessibeth14\_111 (C1), JulietS\_106 (C1), JustHall\_109 (C1), Kamryn\_112 (C1), Kboogie\_116 (C1), Khaleesi\_111 (C1), Koguma\_109 (C1), LRRHood\_105 (C1), Latch\_112 (C1), LifeSavor\_110 (C1), Loanshark\_111 (C1), LolaVinca\_112 (C1), Lukilu\_102 (C1), Maby2021\_112 (C1), Mangeria\_112 (C1), McGee\_114 (C1), McWolfish\_110 (C1), Megamind\_111 (C1), Melpomini\_106 (C1), MikeLiesIn\_113 (C1), Naija\_111 (C1), Napoleon13\_108 (C1), NedWong\_113 (C1), Ngannou\_108 (C1), Nidhogg\_113 (C1), Norm\_113 (C1), ParkTD\_113 (C1), Patter\_112 (C1), Phox\_109 (C1), Phusco\_112 (C1), Pier\_116 (C1), Pinkcreek\_103 (C1), Pio\_116 (C1), Pivoine\_111 (C1), PurduePete\_112 (C1), QBert\_106 (C1), Quasimodo\_113 (C1), Rahel\_111 (C1), Rizal\_107 (C1), RoMag\_107 (C1), Roots515\_110 (C1), Sauce\_112 (C1), Shaqnato\_105 (C1), Shelob\_114 (C1), ShiaLabeouf\_111 (C1), Shifa\_99 (C1), Shnickers\_112 (C1), SilverDipper\_113 (C1), SmallFry\_112 (C1), Specks\_117 (C1), Spud\_111 (C1), SrishMeg2525\_111 (C1), StubbySaigey\_115 (C1), Stubby\_104 (C1), Teardrop\_111 (C1), TinyTim\_112 (C1), Tortoise16\_109 (C1), Turret\_107 (C1), Tyke\_112 (C1), ValleyTerrace\_112 (C1), Wally\_111 (C1), Yassified\_109 (C1), YemiJoy2021\_113 (C1), Yucca\_111 (C1), Zalkecks\_113 (C1), Zeenon\_113 (C1), ZygoTaiga\_110 (C1),

Start 5:

- Found in 4 of 191 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 4 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_104 (DO), Pupper\_104 (DO), SCentae\_103 (DO), Skog\_167 (DO),

#### Start 6:

- Found in 3 of 191 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 2 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_109 (C2), Phabba\_111 (C2), ScoobyDoobyDoo\_102 (C2),

#### Start 7:

- Found in 184 of 191 ( 96.3% ) of genes in pham
- Manual Annotations of this start: 48 of 173
- Called 32.6% of time when present
- Phage (with cluster) where this start called: Alice\_104 (C1), Asterius\_108 (C1), Astraea\_108 (C1), BananaFence\_111 (C1), Bangla1971\_113 (C1), Bigswole\_115 (C1), Blackdragon\_107 (C1), Blubba\_103 (C1), Bread\_111 (C1), Bxz1\_109 (C1), Cactojaque\_107 (C1), Caravan\_106 (C1), Catera\_108 (C1), CharlieB\_108 (C1), Chomp\_109 (C1), Delylah\_115 (C1), Dietrick\_104 (C1), Drazdys\_110 (C1), Gamgam\_112 (C1), Ghost\_110 (C1), Grungle\_99 (C1), Guwapp\_111 (C1), Halldule\_105 (C1), HyRo\_102 (C1), InigoMontoya\_113 (C1), InterFolia\_118 (C1), Issimir\_110 (C1), Izajani\_112 (C1), Janiyra\_114 (C1), JayJay\_112 (C1), Jaygup\_112 (C1), Jemmno\_112 (C1), Lee7\_109 (C1), LinStu\_110 (C1), Littleton\_112 (C1), LordLeafolot\_115 (C1), Matsumoto\_108 (C1), Mikro\_109 (C1), MoMoMixon\_112 (C1), Momo\_111 (C1), Morizzled23\_112 (C1), Nappy\_114 (C1), Naval22\_116 (C1), NoodleTree\_119 (C1), NuevoMundo\_117 (C1), Phlegm\_114 (C1), Pleione\_115 (C1), Rabinovish\_109 (C1), Ronan\_106 (C1), Salacia\_116 (C1), ScottMcG\_108 (C1), Sebata\_112 (C1), Shrimp\_112 (C1), Spec\_107 (C1), Sprinklers\_108 (C1), StephanieG\_110 (C1), Tonenili\_126 (C1), Trinitium\_109 (C1), Willis\_113 (C1), YoungMoneyMata\_113 (C1),

#### Summary by clusters:

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

Info for manual annotations of cluster C1:

- Start number 2 was manually annotated 119 times for cluster C1.
- Start number 7 was manually annotated 48 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 6 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster DO:

- Start number 5 was manually annotated 4 times for cluster DO.

#### Gene Information:

Gene: Ading\_112 Start: 57327, Stop: 57593, Start Num: 2

Candidate Starts for Ading\_112:

(Start: 2 @57327 has 119 MA's), (Start: 7 @57342 has 48 MA's), (14, 57450), (16, 57462), (17, 57513), (18, 57516), (22, 57540),

Gene: Adlitam\_112 Start: 57344, Stop: 57610, Start Num: 2

Candidate Starts for Adlitam\_112:

(Start: 2 @57344 has 119 MA's), (Start: 7 @57359 has 48 MA's), (14, 57467), (16, 57479), (17, 57530), (18, 57533), (22, 57557),

Gene: Alice\_104 Start: 56637, Stop: 56888, Start Num: 7

Candidate Starts for Alice\_104:

(Start: 2 @56622 has 119 MA's), (Start: 7 @56637 has 48 MA's), (14, 56745), (16, 56757), (17, 56808), (18, 56811), (21, 56826), (22, 56835),

Gene: Amataga\_112 Start: 56589, Stop: 56855, Start Num: 2

Candidate Starts for Amataga\_112:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: ArcherS7\_111 Start: 56907, Stop: 57173, Start Num: 2

Candidate Starts for ArcherS7\_111:

(Start: 2 @56907 has 119 MA's), (Start: 7 @56922 has 48 MA's), (14, 57030), (16, 57042), (17, 57093), (18, 57096), (22, 57120),

Gene: Asterius\_108 Start: 57598, Stop: 57849, Start Num: 7

Candidate Starts for Asterius\_108:

(Start: 2 @57583 has 119 MA's), (Start: 7 @57598 has 48 MA's), (14, 57706), (16, 57718), (17, 57769), (18, 57772), (22, 57796), (24, 57844),

Gene: Astraea\_108 Start: 56373, Stop: 56624, Start Num: 7

Candidate Starts for Astraea\_108:

(Start: 2 @56358 has 119 MA's), (Start: 7 @56373 has 48 MA's), (14, 56481), (16, 56493), (17, 56544), (18, 56547), (22, 56571),

Gene: Atlantean\_111 Start: 56589, Stop: 56855, Start Num: 2

Candidate Starts for Atlantean\_111:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Audrick\_114 Start: 56568, Stop: 56834, Start Num: 2

Candidate Starts for Audrick\_114:

(Start: 2 @56568 has 119 MA's), (Start: 7 @56583 has 48 MA's), (14, 56691), (16, 56703), (17, 56754), (18, 56757), (22, 56781),

Gene: Ava3\_113 Start: 57502, Stop: 57768, Start Num: 2

Candidate Starts for Ava3\_113:

(Start: 2 @57502 has 119 MA's), (Start: 7 @57517 has 48 MA's), (14, 57625), (16, 57637), (17, 57688), (18, 57691), (22, 57715),

Gene: Babyland\_113 Start: 56677, Stop: 56943, Start Num: 2

Candidate Starts for Babyland\_113:

(Start: 2 @56677 has 119 MA's), (Start: 7 @56692 has 48 MA's), (14, 56800), (16, 56812), (17, 56863), (18, 56866), (22, 56890),

Gene: BackyardAgain\_109 Start: 56505, Stop: 56771, Start Num: 2

Candidate Starts for BackyardAgain\_109:

(Start: 2 @56505 has 119 MA's), (Start: 7 @56520 has 48 MA's), (14, 56628), (16, 56640), (17, 56691), (18, 56694), (22, 56718),

Gene: BadAgartude\_108 Start: 57794, Stop: 58060, Start Num: 2  
Candidate Starts for BadAgartude\_108:  
(Start: 2 @57794 has 119 MA's), (Start: 7 @57809 has 48 MA's), (14, 57917), (16, 57929), (17, 57980), (18, 57983), (22, 58007),

Gene: BananaFence\_111 Start: 57773, Stop: 58024, Start Num: 7  
Candidate Starts for BananaFence\_111:  
(Start: 2 @57758 has 119 MA's), (Start: 7 @57773 has 48 MA's), (14, 57881), (16, 57893), (17, 57944), (18, 57947), (22, 57971),

Gene: Bangla1971\_113 Start: 57052, Stop: 57303, Start Num: 7  
Candidate Starts for Bangla1971\_113:  
(Start: 2 @57037 has 119 MA's), (Start: 7 @57052 has 48 MA's), (14, 57160), (16, 57172), (17, 57223), (18, 57226), (22, 57250),

Gene: Basquiat\_108 Start: 56221, Stop: 56487, Start Num: 2  
Candidate Starts for Basquiat\_108:  
(Start: 2 @56221 has 119 MA's), (Start: 7 @56236 has 48 MA's), (14, 56344), (16, 56356), (17, 56407), (18, 56410), (22, 56434),

Gene: BeanWater\_104 Start: 57356, Stop: 57622, Start Num: 2  
Candidate Starts for BeanWater\_104:  
(Start: 2 @57356 has 119 MA's), (Start: 7 @57371 has 48 MA's), (14, 57479), (16, 57491), (17, 57542), (18, 57545), (22, 57569),

Gene: BigCity\_119 Start: 60018, Stop: 60284, Start Num: 2  
Candidate Starts for BigCity\_119:  
(Start: 2 @60018 has 119 MA's), (Start: 7 @60033 has 48 MA's), (14, 60141), (16, 60153), (17, 60204), (18, 60207), (22, 60231),

Gene: Bigswole\_115 Start: 59318, Stop: 59569, Start Num: 7  
Candidate Starts for Bigswole\_115:  
(Start: 2 @59303 has 119 MA's), (Start: 7 @59318 has 48 MA's), (14, 59426), (16, 59438), (17, 59489), (18, 59492), (22, 59516),

Gene: Bipolarisk\_111 Start: 57760, Stop: 58026, Start Num: 2  
Candidate Starts for Bipolarisk\_111:  
(Start: 2 @57760 has 119 MA's), (Start: 7 @57775 has 48 MA's), (14, 57883), (16, 57895), (17, 57946), (18, 57949), (22, 57973),

Gene: Blackbrain\_107 Start: 56052, Stop: 56318, Start Num: 2  
Candidate Starts for Blackbrain\_107:  
(Start: 2 @56052 has 119 MA's), (Start: 7 @56067 has 48 MA's), (14, 56175), (16, 56187), (17, 56238), (18, 56241), (22, 56265), (24, 56313),

Gene: Blackdragon\_107 Start: 57200, Stop: 57451, Start Num: 7  
Candidate Starts for Blackdragon\_107:  
(Start: 2 @57185 has 119 MA's), (Start: 7 @57200 has 48 MA's), (14, 57308), (16, 57320), (17, 57371), (18, 57374), (22, 57398),

Gene: Blubba\_103 Start: 57806, Stop: 58057, Start Num: 7  
Candidate Starts for Blubba\_103:

(Start: 2 @57791 has 119 MA's), (Start: 7 @57806 has 48 MA's), (14, 57914), (16, 57926), (17, 57977), (18, 57980), (22, 58004),

Gene: Bonray\_112 Start: 57933, Stop: 58199, Start Num: 2

Candidate Starts for Bonray\_112:

(Start: 2 @57933 has 119 MA's), (Start: 7 @57948 has 48 MA's), (14, 58056), (16, 58068), (17, 58119), (18, 58122), (22, 58146),

Gene: Bread\_111 Start: 57603, Stop: 57854, Start Num: 7

Candidate Starts for Bread\_111:

(Start: 2 @57588 has 119 MA's), (Start: 7 @57603 has 48 MA's), (14, 57711), (16, 57723), (17, 57774), (18, 57777), (22, 57801),

Gene: Breeniome\_111 Start: 55936, Stop: 56202, Start Num: 2

Candidate Starts for Breeniome\_111:

(Start: 2 @55936 has 119 MA's), (Start: 7 @55951 has 48 MA's), (14, 56059), (16, 56071), (17, 56122), (18, 56125), (22, 56149),

Gene: Burrough\_112 Start: 58087, Stop: 58353, Start Num: 2

Candidate Starts for Burrough\_112:

(Start: 2 @58087 has 119 MA's), (Start: 7 @58102 has 48 MA's), (14, 58210), (16, 58222), (17, 58273), (18, 58276), (22, 58300),

Gene: Bxz1\_109 Start: 59305, Stop: 59556, Start Num: 7

Candidate Starts for Bxz1\_109:

(Start: 2 @59290 has 119 MA's), (Start: 7 @59305 has 48 MA's), (14, 59413), (16, 59425), (17, 59476), (18, 59479), (22, 59503),

Gene: Cactojaque\_107 Start: 56174, Stop: 56425, Start Num: 7

Candidate Starts for Cactojaque\_107:

(Start: 2 @56159 has 119 MA's), (Start: 7 @56174 has 48 MA's), (14, 56282), (16, 56294), (17, 56345), (18, 56348), (22, 56372), (24, 56420),

Gene: Cali\_107 Start: 58089, Stop: 58355, Start Num: 2

Candidate Starts for Cali\_107:

(Start: 2 @58089 has 119 MA's), (Start: 7 @58104 has 48 MA's), (14, 58212), (16, 58224), (17, 58275), (18, 58278), (22, 58302),

Gene: Cane17\_102 Start: 57849, Stop: 58115, Start Num: 2

Candidate Starts for Cane17\_102:

(Start: 2 @57849 has 119 MA's), (Start: 7 @57864 has 48 MA's), (14, 57972), (16, 57984), (17, 58035), (18, 58038), (22, 58062),

Gene: Capablanca\_114 Start: 58339, Stop: 58605, Start Num: 2

Candidate Starts for Capablanca\_114:

(Start: 2 @58339 has 119 MA's), (Start: 7 @58354 has 48 MA's), (14, 58462), (16, 58474), (17, 58525), (18, 58528), (22, 58552),

Gene: Caravan\_106 Start: 57461, Stop: 57712, Start Num: 7

Candidate Starts for Caravan\_106:

(Start: 2 @57446 has 119 MA's), (Start: 7 @57461 has 48 MA's), (14, 57569), (16, 57581), (17, 57632), (18, 57635), (22, 57659),



Gene: Catera\_108 Start: 56378, Stop: 56629, Start Num: 7

Candidate Starts for Catera\_108:

(Start: 2 @56363 has 119 MA's), (Start: 7 @56378 has 48 MA's), (14, 56486), (16, 56498), (17, 56549), (18, 56552), (22, 56576), (24, 56624),

Gene: Chargie21\_108 Start: 56221, Stop: 56487, Start Num: 2

Candidate Starts for Chargie21\_108:

(Start: 2 @56221 has 119 MA's), (Start: 7 @56236 has 48 MA's), (14, 56344), (16, 56356), (17, 56407), (18, 56410), (22, 56434),

Gene: CharlieB\_108 Start: 56508, Stop: 56759, Start Num: 7

Candidate Starts for CharlieB\_108:

(Start: 2 @56493 has 119 MA's), (Start: 7 @56508 has 48 MA's), (14, 56616), (16, 56628), (17, 56679), (18, 56682), (22, 56706),

Gene: ChaylaJr\_107 Start: 55985, Stop: 56251, Start Num: 2

Candidate Starts for ChaylaJr\_107:

(Start: 2 @55985 has 119 MA's), (Start: 7 @56000 has 48 MA's), (14, 56108), (16, 56120), (17, 56171), (18, 56174), (22, 56198), (24, 56246),

Gene: CherryTomatoes\_104 Start: 60626, Stop: 60835, Start Num: 5

Candidate Starts for CherryTomatoes\_104:

(Start: 5 @60626 has 4 MA's), (9, 60644), (10, 60650), (13, 60713), (15, 60725), (18, 60764), (19, 60767), (20, 60773),

Gene: ChickenPhender\_108 Start: 56288, Stop: 56554, Start Num: 2

Candidate Starts for ChickenPhender\_108:

(Start: 2 @56288 has 119 MA's), (Start: 7 @56303 has 48 MA's), (14, 56411), (16, 56423), (17, 56474), (18, 56477), (22, 56501), (24, 56549),

Gene: Chomp\_109 Start: 57893, Stop: 58144, Start Num: 7

Candidate Starts for Chomp\_109:

(Start: 2 @57878 has 119 MA's), (Start: 7 @57893 has 48 MA's), (14, 58001), (16, 58013), (17, 58064), (18, 58067), (22, 58091), (24, 58139),

Gene: CindyLou\_113 Start: 57918, Stop: 58184, Start Num: 2

Candidate Starts for CindyLou\_113:

(Start: 2 @57918 has 119 MA's), (Start: 7 @57933 has 48 MA's), (14, 58041), (16, 58053), (17, 58104), (18, 58107), (22, 58131),

Gene: Colt\_103 Start: 58445, Stop: 58711, Start Num: 2

Candidate Starts for Colt\_103:

(Start: 2 @58445 has 119 MA's), (Start: 7 @58460 has 48 MA's), (14, 58568), (16, 58580), (17, 58631), (18, 58634), (22, 58658),

Gene: Concombre\_117 Start: 60251, Stop: 60517, Start Num: 2

Candidate Starts for Concombre\_117:

(Start: 2 @60251 has 119 MA's), (Start: 7 @60266 has 48 MA's), (14, 60374), (16, 60386), (17, 60437), (18, 60440), (22, 60464),

Gene: DTDevon\_112 Start: 58129, Stop: 58395, Start Num: 2

Candidate Starts for DTDevon\_112:

(Start: 2 @58129 has 119 MA's), (Start: 7 @58144 has 48 MA's), (14, 58252), (16, 58264), (17, 58315), (18, 58318), (22, 58342),

Gene: Daffodil\_117 Start: 58060, Stop: 58326, Start Num: 2

Candidate Starts for Daffodil\_117:

(Start: 2 @58060 has 119 MA's), (Start: 7 @58075 has 48 MA's), (14, 58183), (16, 58195), (17, 58246), (18, 58249), (22, 58273),

Gene: Dandelion\_117 Start: 60242, Stop: 60508, Start Num: 2

Candidate Starts for Dandelion\_117:

(Start: 2 @60242 has 119 MA's), (Start: 7 @60257 has 48 MA's), (14, 60365), (16, 60377), (17, 60428), (18, 60431), (21, 60446), (22, 60455),

Gene: Darko\_112 Start: 57762, Stop: 58028, Start Num: 2

Candidate Starts for Darko\_112:

(Start: 2 @57762 has 119 MA's), (Start: 7 @57777 has 48 MA's), (14, 57885), (16, 57897), (17, 57948), (18, 57951), (22, 57975),

Gene: Delilah\_112 Start: 58214, Stop: 58480, Start Num: 2

Candidate Starts for Delilah\_112:

(Start: 2 @58214 has 119 MA's), (Start: 7 @58229 has 48 MA's), (14, 58337), (16, 58349), (17, 58400), (18, 58403), (22, 58427),

Gene: Delylah\_115 Start: 57768, Stop: 58019, Start Num: 7

Candidate Starts for Delylah\_115:

(Start: 2 @57753 has 119 MA's), (Start: 7 @57768 has 48 MA's), (14, 57876), (16, 57888), (17, 57939), (18, 57942), (22, 57966),

Gene: Derek\_111 Start: 57679, Stop: 57945, Start Num: 2

Candidate Starts for Derek\_111:

(Start: 2 @57679 has 119 MA's), (Start: 7 @57694 has 48 MA's), (14, 57802), (16, 57814), (17, 57865), (18, 57868), (22, 57892),

Gene: Dietrick\_104 Start: 55770, Stop: 56021, Start Num: 7

Candidate Starts for Dietrick\_104:

(Start: 2 @55755 has 119 MA's), (Start: 7 @55770 has 48 MA's), (14, 55878), (16, 55890), (17, 55941), (18, 55944), (22, 55968),

Gene: DirtMonster\_106 Start: 57013, Stop: 57279, Start Num: 2

Candidate Starts for DirtMonster\_106:

(Start: 2 @57013 has 119 MA's), (Start: 7 @57028 has 48 MA's), (14, 57136), (16, 57148), (17, 57199), (18, 57202), (22, 57226),

Gene: DrPhinkDaddy\_111 Start: 58282, Stop: 58548, Start Num: 2

Candidate Starts for DrPhinkDaddy\_111:

(Start: 2 @58282 has 119 MA's), (Start: 7 @58297 has 48 MA's), (14, 58405), (16, 58417), (17, 58468), (18, 58471), (22, 58495),

Gene: Drazdys\_110 Start: 56758, Stop: 57009, Start Num: 7

Candidate Starts for Drazdys\_110:

(Start: 2 @56743 has 119 MA's), (Start: 7 @56758 has 48 MA's), (14, 56866), (16, 56878), (17, 56929), (18, 56932), (22, 56956),

Gene: ET08\_100 Start: 56743, Stop: 57009, Start Num: 2

Candidate Starts for ET08\_100:

(Start: 2 @56743 has 119 MA's), (Start: 7 @56758 has 48 MA's), (14, 56866), (16, 56878), (17, 56929), (18, 56932), (22, 56956),

Gene: EasyJones\_114 Start: 56885, Stop: 57151, Start Num: 2

Candidate Starts for EasyJones\_114:

(Start: 2 @56885 has 119 MA's), (Start: 7 @56900 has 48 MA's), (14, 57008), (16, 57020), (17, 57071), (18, 57074), (22, 57098),

Gene: EggyFarm\_119 Start: 60018, Stop: 60284, Start Num: 2

Candidate Starts for EggyFarm\_119:

(Start: 2 @60018 has 119 MA's), (Start: 7 @60033 has 48 MA's), (14, 60141), (16, 60153), (17, 60204), (18, 60207), (22, 60231),

Gene: EmToTheThree\_114 Start: 59022, Stop: 59288, Start Num: 2

Candidate Starts for EmToTheThree\_114:

(Start: 2 @59022 has 119 MA's), (Start: 7 @59037 has 48 MA's), (14, 59145), (16, 59157), (17, 59208), (18, 59211), (21, 59226), (22, 59235),

Gene: EmmaElysia\_112 Start: 56808, Stop: 57074, Start Num: 2

Candidate Starts for EmmaElysia\_112:

(Start: 2 @56808 has 119 MA's), (Start: 7 @56823 has 48 MA's), (14, 56931), (16, 56943), (17, 56994), (18, 56997), (22, 57021),

Gene: Erdmann\_112 Start: 58061, Stop: 58327, Start Num: 2

Candidate Starts for Erdmann\_112:

(Start: 2 @58061 has 119 MA's), (Start: 7 @58076 has 48 MA's), (14, 58184), (16, 58196), (17, 58247), (18, 58250), (22, 58274),

Gene: ErnieJ\_106 Start: 56016, Stop: 56282, Start Num: 2

Candidate Starts for ErnieJ\_106:

(Start: 2 @56016 has 119 MA's), (Start: 7 @56031 has 48 MA's), (14, 56139), (16, 56151), (17, 56202), (18, 56205), (22, 56229),

Gene: Essence\_109 Start: 56909, Stop: 57175, Start Num: 2

Candidate Starts for Essence\_109:

(Start: 2 @56909 has 119 MA's), (Start: 7 @56924 has 48 MA's), (14, 57032), (16, 57044), (17, 57095), (18, 57098), (22, 57122),

Gene: Ewok\_113 Start: 57448, Stop: 57714, Start Num: 2

Candidate Starts for Ewok\_113:

(Start: 2 @57448 has 119 MA's), (Start: 7 @57463 has 48 MA's), (14, 57571), (16, 57583), (17, 57634), (18, 57637), (22, 57661),

Gene: Flabslab\_106 Start: 55140, Stop: 55406, Start Num: 2

Candidate Starts for Flabslab\_106:

(Start: 2 @55140 has 119 MA's), (Start: 7 @55155 has 48 MA's), (14, 55263), (16, 55275), (17, 55326), (18, 55329), (22, 55353),

Gene: Fludd\_112 Start: 56656, Stop: 56922, Start Num: 2

Candidate Starts for Fludd\_112:

(Start: 2 @56656 has 119 MA's), (Start: 7 @56671 has 48 MA's), (14, 56779), (16, 56791), (17, 56842), (18, 56845), (22, 56869),

Gene: FoxtrotP1\_112 Start: 59231, Stop: 59497, Start Num: 2

Candidate Starts for FoxtrotP1\_112:

(Start: 2 @59231 has 119 MA's), (Start: 7 @59246 has 48 MA's), (14, 59354), (16, 59366), (17, 59417), (18, 59420), (22, 59444),

Gene: FrayBell\_117 Start: 58395, Stop: 58661, Start Num: 2

Candidate Starts for FrayBell\_117:

(Start: 2 @58395 has 119 MA's), (Start: 7 @58410 has 48 MA's), (14, 58518), (16, 58530), (17, 58581), (18, 58584), (22, 58608),

Gene: FudgeTart\_110 Start: 57090, Stop: 57356, Start Num: 2

Candidate Starts for FudgeTart\_110:

(Start: 2 @57090 has 119 MA's), (Start: 7 @57105 has 48 MA's), (14, 57213), (16, 57225), (17, 57276), (18, 57279), (22, 57303),

Gene: Gabriel\_112 Start: 56315, Stop: 56581, Start Num: 2

Candidate Starts for Gabriel\_112:

(Start: 2 @56315 has 119 MA's), (Start: 7 @56330 has 48 MA's), (14, 56438), (16, 56450), (17, 56501), (18, 56504), (22, 56528),

Gene: Gamgam\_112 Start: 56604, Stop: 56855, Start Num: 7

Candidate Starts for Gamgam\_112:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Ghost\_110 Start: 56604, Stop: 56855, Start Num: 7

Candidate Starts for Ghost\_110:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Gizmo\_116 Start: 59211, Stop: 59477, Start Num: 2

Candidate Starts for Gizmo\_116:

(Start: 2 @59211 has 119 MA's), (Start: 7 @59226 has 48 MA's), (14, 59334), (16, 59346), (17, 59397), (18, 59400), (22, 59424),

Gene: Grasshills\_118 Start: 60018, Stop: 60284, Start Num: 2

Candidate Starts for Grasshills\_118:

(Start: 2 @60018 has 119 MA's), (Start: 7 @60033 has 48 MA's), (14, 60141), (16, 60153), (17, 60204), (18, 60207), (22, 60231),

Gene: Greely\_109 Start: 55472, Stop: 55714, Start Num: 6

Candidate Starts for Greely\_109:

(Start: 6 @55472 has 2 MA's), (8, 55484), (9, 55487), (12, 55535), (13, 55562), (23, 55685),

Gene: Grungle\_99 Start: 54348, Stop: 54599, Start Num: 7

Candidate Starts for Grungle\_99:

(Start: 2 @54333 has 119 MA's), (Start: 7 @54348 has 48 MA's), (14, 54456), (16, 54468), (17, 54519), (18, 54522), (22, 54546),

Gene: Guwapp\_111 Start: 56495, Stop: 56746, Start Num: 7

Candidate Starts for Guwapp\_111:

(Start: 2 @56480 has 119 MA's), (Start: 7 @56495 has 48 MA's), (14, 56603), (16, 56615), (17, 56666), (18, 56669), (22, 56693),

Gene: Halldule\_105 Start: 55374, Stop: 55625, Start Num: 7

Candidate Starts for Halldule\_105:

(Start: 2 @55359 has 119 MA's), (Start: 7 @55374 has 48 MA's), (14, 55482), (16, 55494), (17, 55545), (18, 55548), (22, 55572),

Gene: HyRo\_102 Start: 56601, Stop: 56852, Start Num: 7

Candidate Starts for HyRo\_102:

(Start: 2 @56586 has 119 MA's), (Start: 7 @56601 has 48 MA's), (14, 56709), (16, 56721), (17, 56772), (18, 56775), (21, 56790), (22, 56799),

Gene: l3\_117 Start: 58546, Stop: 58812, Start Num: 2

Candidate Starts for l3\_117:

(Start: 2 @58546 has 119 MA's), (Start: 7 @58561 has 48 MA's), (14, 58669), (16, 58681), (17, 58732), (18, 58735), (22, 58759),

Gene: IkeLoa\_105 Start: 56415, Stop: 56681, Start Num: 2

Candidate Starts for IkeLoa\_105:

(Start: 2 @56415 has 119 MA's), (Start: 7 @56430 has 48 MA's), (14, 56538), (16, 56550), (17, 56601), (18, 56604), (22, 56628),

Gene: InigoMontoya\_113 Start: 56565, Stop: 56816, Start Num: 7

Candidate Starts for InigoMontoya\_113:

(Start: 2 @56550 has 119 MA's), (Start: 7 @56565 has 48 MA's), (14, 56673), (16, 56685), (17, 56736), (18, 56739), (22, 56763),

Gene: InterFolia\_118 Start: 59345, Stop: 59596, Start Num: 7

Candidate Starts for InterFolia\_118:

(Start: 2 @59330 has 119 MA's), (Start: 7 @59345 has 48 MA's), (14, 59453), (16, 59465), (17, 59516), (18, 59519), (22, 59543),

Gene: Iota\_107 Start: 57026, Stop: 57292, Start Num: 2

Candidate Starts for Iota\_107:

(Start: 2 @57026 has 119 MA's), (Start: 7 @57041 has 48 MA's), (14, 57149), (16, 57161), (17, 57212), (18, 57215), (22, 57239),

Gene: Issimir\_110 Start: 58050, Stop: 58301, Start Num: 7

Candidate Starts for Issimir\_110:

(Start: 2 @58035 has 119 MA's), (Start: 7 @58050 has 48 MA's), (14, 58158), (16, 58170), (17, 58221), (18, 58224), (22, 58248),

Gene: Izajani\_112 Start: 58256, Stop: 58507, Start Num: 7

Candidate Starts for Izajani\_112:

(Start: 2 @58241 has 119 MA's), (Start: 7 @58256 has 48 MA's), (14, 58364), (16, 58376), (17, 58427), (18, 58430), (22, 58454),

Gene: JPickles\_109 Start: 55820, Stop: 56086, Start Num: 2

Candidate Starts for JPickles\_109:

(Start: 2 @55820 has 119 MA's), (Start: 7 @55835 has 48 MA's), (14, 55943), (16, 55955), (17, 56006), (18, 56009), (22, 56033),

Gene: Janiyra\_114 Start: 57531, Stop: 57782, Start Num: 7  
Candidate Starts for Janiyra\_114:  
(Start: 2 @57516 has 119 MA's), (Start: 7 @57531 has 48 MA's), (14, 57639), (16, 57651), (17, 57702), (18, 57705), (22, 57729),

Gene: JayJay\_112 Start: 59041, Stop: 59292, Start Num: 7  
Candidate Starts for JayJay\_112:  
(Start: 2 @59026 has 119 MA's), (Start: 7 @59041 has 48 MA's), (14, 59149), (16, 59161), (17, 59212), (18, 59215), (21, 59230), (22, 59239),

Gene: Jaygup\_112 Start: 57360, Stop: 57611, Start Num: 7  
Candidate Starts for Jaygup\_112:  
(Start: 2 @57345 has 119 MA's), (Start: 7 @57360 has 48 MA's), (14, 57468), (16, 57480), (17, 57531), (18, 57534), (22, 57558),

Gene: Jedediah\_115 Start: 57878, Stop: 58144, Start Num: 2  
Candidate Starts for Jedediah\_115:  
(Start: 2 @57878 has 119 MA's), (Start: 7 @57893 has 48 MA's), (14, 58001), (16, 58013), (17, 58064), (18, 58067), (22, 58091),

Gene: Jemmno\_112 Start: 57340, Stop: 57591, Start Num: 7  
Candidate Starts for Jemmno\_112:  
(Start: 2 @57325 has 119 MA's), (Start: 7 @57340 has 48 MA's), (14, 57448), (16, 57460), (17, 57511), (18, 57514), (22, 57538),

Gene: Jessibeth14\_111 Start: 57847, Stop: 58113, Start Num: 2  
Candidate Starts for Jessibeth14\_111:  
(Start: 2 @57847 has 119 MA's), (Start: 7 @57862 has 48 MA's), (14, 57970), (16, 57982), (18, 58036), (22, 58060),

Gene: JulietS\_106 Start: 55212, Stop: 55478, Start Num: 2  
Candidate Starts for JulietS\_106:  
(Start: 2 @55212 has 119 MA's), (Start: 7 @55227 has 48 MA's), (14, 55335), (16, 55347), (17, 55398), (18, 55401), (22, 55425),

Gene: JustHall\_109 Start: 57384, Stop: 57650, Start Num: 2  
Candidate Starts for JustHall\_109:  
(Start: 2 @57384 has 119 MA's), (Start: 7 @57399 has 48 MA's), (14, 57507), (16, 57519), (17, 57570), (18, 57573), (22, 57597),

Gene: Kamryn\_112 Start: 58662, Stop: 58928, Start Num: 2  
Candidate Starts for Kamryn\_112:  
(Start: 2 @58662 has 119 MA's), (Start: 7 @58677 has 48 MA's), (14, 58785), (16, 58797), (17, 58848), (18, 58851), (22, 58875), (24, 58923),

Gene: Kboogie\_116 Start: 57018, Stop: 57284, Start Num: 2  
Candidate Starts for Kboogie\_116:  
(Start: 2 @57018 has 119 MA's), (Start: 7 @57033 has 48 MA's), (14, 57141), (16, 57153), (17, 57204), (18, 57207), (22, 57231), (24, 57279),

Gene: Khaleesi\_111 Start: 57960, Stop: 58226, Start Num: 2  
Candidate Starts for Khaleesi\_111:

(Start: 2 @57960 has 119 MA's), (Start: 7 @57975 has 48 MA's), (14, 58083), (16, 58095), (17, 58146), (18, 58149), (22, 58173),

Gene: Koguma\_109 Start: 55505, Stop: 55771, Start Num: 2

Candidate Starts for Koguma\_109:

(Start: 2 @55505 has 119 MA's), (Start: 7 @55520 has 48 MA's), (14, 55628), (16, 55640), (17, 55691), (18, 55694), (22, 55718),

Gene: LRRHood\_105 Start: 57303, Stop: 57569, Start Num: 2

Candidate Starts for LRRHood\_105:

(Start: 2 @57303 has 119 MA's), (Start: 7 @57318 has 48 MA's), (14, 57426), (16, 57438), (17, 57489), (18, 57492), (22, 57516),

Gene: Latch\_112 Start: 56589, Stop: 56855, Start Num: 2

Candidate Starts for Latch\_112:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Lee7\_109 Start: 58609, Stop: 58860, Start Num: 7

Candidate Starts for Lee7\_109:

(Start: 2 @58594 has 119 MA's), (Start: 7 @58609 has 48 MA's), (14, 58717), (16, 58729), (17, 58780), (18, 58783), (22, 58807),

Gene: LifeSavor\_110 Start: 57277, Stop: 57543, Start Num: 2

Candidate Starts for LifeSavor\_110:

(Start: 2 @57277 has 119 MA's), (Start: 7 @57292 has 48 MA's), (14, 57400), (16, 57412), (17, 57463), (18, 57466), (22, 57490),

Gene: LinStu\_110 Start: 57927, Stop: 58178, Start Num: 7

Candidate Starts for LinStu\_110:

(Start: 2 @57912 has 119 MA's), (Start: 7 @57927 has 48 MA's), (14, 58035), (16, 58047), (17, 58098), (18, 58101), (21, 58116), (22, 58125),

Gene: Littleton\_112 Start: 57422, Stop: 57673, Start Num: 7

Candidate Starts for Littleton\_112:

(Start: 2 @57407 has 119 MA's), (Start: 7 @57422 has 48 MA's), (14, 57530), (16, 57542), (17, 57593), (18, 57596), (22, 57620), (24, 57668),

Gene: Loanshark\_111 Start: 57928, Stop: 58194, Start Num: 2

Candidate Starts for Loanshark\_111:

(Start: 2 @57928 has 119 MA's), (Start: 7 @57943 has 48 MA's), (14, 58051), (16, 58063), (17, 58114), (18, 58117), (22, 58141),

Gene: LolaVinca\_112 Start: 58280, Stop: 58546, Start Num: 2

Candidate Starts for LolaVinca\_112:

(Start: 2 @58280 has 119 MA's), (Start: 7 @58295 has 48 MA's), (14, 58403), (16, 58415), (17, 58466), (18, 58469), (22, 58493),

Gene: LordLeafolot\_115 Start: 59262, Stop: 59513, Start Num: 7

Candidate Starts for LordLeafolot\_115:

(Start: 2 @59247 has 119 MA's), (Start: 7 @59262 has 48 MA's), (14, 59370), (16, 59382), (17, 59433), (18, 59436), (22, 59460),

Gene: Lukilu\_102 Start: 57694, Stop: 57960, Start Num: 2  
Candidate Starts for Lukilu\_102:  
(Start: 2 @57694 has 119 MA's), (Start: 7 @57709 has 48 MA's), (14, 57817), (16, 57829), (17, 57880), (18, 57883), (22, 57907),

Gene: Maby2021\_112 Start: 58054, Stop: 58320, Start Num: 2  
Candidate Starts for Maby2021\_112:  
(Start: 2 @58054 has 119 MA's), (Start: 7 @58069 has 48 MA's), (14, 58177), (16, 58189), (17, 58240), (18, 58243), (22, 58267),

Gene: Mangeria\_112 Start: 58123, Stop: 58389, Start Num: 2  
Candidate Starts for Mangeria\_112:  
(Start: 2 @58123 has 119 MA's), (Start: 7 @58138 has 48 MA's), (14, 58246), (16, 58258), (17, 58309), (18, 58312), (22, 58336),

Gene: Matsumoto\_108 Start: 56921, Stop: 57172, Start Num: 7  
Candidate Starts for Matsumoto\_108:  
(Start: 2 @56906 has 119 MA's), (Start: 7 @56921 has 48 MA's), (14, 57029), (16, 57041), (17, 57092), (18, 57095), (22, 57119),

Gene: McGee\_114 Start: 56659, Stop: 56925, Start Num: 2  
Candidate Starts for McGee\_114:  
(Start: 2 @56659 has 119 MA's), (Start: 7 @56674 has 48 MA's), (14, 56782), (16, 56794), (17, 56845), (18, 56848), (22, 56872), (24, 56920),

Gene: McWolfish\_110 Start: 57843, Stop: 58109, Start Num: 2  
Candidate Starts for McWolfish\_110:  
(Start: 2 @57843 has 119 MA's), (Start: 7 @57858 has 48 MA's), (14, 57966), (16, 57978), (17, 58029), (18, 58032), (22, 58056),

Gene: Megamind\_111 Start: 57727, Stop: 57993, Start Num: 2  
Candidate Starts for Megamind\_111:  
(Start: 2 @57727 has 119 MA's), (Start: 7 @57742 has 48 MA's), (14, 57850), (16, 57862), (17, 57913), (18, 57916), (22, 57940),

Gene: Melpomini\_106 Start: 55193, Stop: 55459, Start Num: 2  
Candidate Starts for Melpomini\_106:  
(Start: 2 @55193 has 119 MA's), (Start: 7 @55208 has 48 MA's), (14, 55316), (16, 55328), (17, 55379), (18, 55382), (22, 55406),

Gene: MikeLiesIn\_113 Start: 58074, Stop: 58340, Start Num: 2  
Candidate Starts for MikeLiesIn\_113:  
(Start: 2 @58074 has 119 MA's), (Start: 7 @58089 has 48 MA's), (14, 58197), (16, 58209), (17, 58260), (18, 58263), (22, 58287),

Gene: Mikro\_109 Start: 59312, Stop: 59563, Start Num: 7  
Candidate Starts for Mikro\_109:  
(Start: 2 @59297 has 119 MA's), (Start: 7 @59312 has 48 MA's), (14, 59420), (16, 59432), (17, 59483), (18, 59486), (22, 59510),

Gene: MoMoMixon\_112 Start: 57565, Stop: 57816, Start Num: 7  
Candidate Starts for MoMoMixon\_112:



(Start: 2 @57550 has 119 MA's), (Start: 7 @57565 has 48 MA's), (14, 57673), (16, 57685), (17, 57736), (18, 57739), (22, 57763),

Gene: Momo\_111 Start: 56604, Stop: 56855, Start Num: 7

Candidate Starts for Momo\_111:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Morizzled23\_112 Start: 56969, Stop: 57220, Start Num: 7

Candidate Starts for Morizzled23\_112:

(Start: 2 @56954 has 119 MA's), (Start: 7 @56969 has 48 MA's), (14, 57077), (16, 57089), (17, 57140), (18, 57143), (22, 57167),

Gene: Naija\_111 Start: 56589, Stop: 56855, Start Num: 2

Candidate Starts for Naija\_111:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Napoleon13\_108 Start: 55631, Stop: 55897, Start Num: 2

Candidate Starts for Napoleon13\_108:

(Start: 2 @55631 has 119 MA's), (Start: 7 @55646 has 48 MA's), (14, 55754), (16, 55766), (17, 55817), (18, 55820), (22, 55844),

Gene: Nappy\_114 Start: 58999, Stop: 59250, Start Num: 7

Candidate Starts for Nappy\_114:

(Start: 2 @58984 has 119 MA's), (Start: 7 @58999 has 48 MA's), (14, 59107), (16, 59119), (17, 59170), (18, 59173), (22, 59197),

Gene: Naval22\_116 Start: 59532, Stop: 59783, Start Num: 7

Candidate Starts for Naval22\_116:

(Start: 2 @59517 has 119 MA's), (Start: 7 @59532 has 48 MA's), (14, 59640), (16, 59652), (17, 59703), (18, 59706), (22, 59730),

Gene: NedWong\_113 Start: 58061, Stop: 58327, Start Num: 2

Candidate Starts for NedWong\_113:

(Start: 2 @58061 has 119 MA's), (Start: 7 @58076 has 48 MA's), (14, 58184), (16, 58196), (17, 58247), (18, 58250), (22, 58274),

Gene: Ngannou\_108 Start: 55571, Stop: 55837, Start Num: 2

Candidate Starts for Ngannou\_108:

(Start: 2 @55571 has 119 MA's), (Start: 7 @55586 has 48 MA's), (14, 55694), (16, 55706), (17, 55757), (18, 55760), (22, 55784),

Gene: Nidhogg\_113 Start: 57795, Stop: 58061, Start Num: 2

Candidate Starts for Nidhogg\_113:

(Start: 2 @57795 has 119 MA's), (Start: 7 @57810 has 48 MA's), (14, 57918), (16, 57930), (17, 57981), (18, 57984), (22, 58008),

Gene: NoodleTree\_119 Start: 58169, Stop: 58420, Start Num: 7

Candidate Starts for NoodleTree\_119:

(Start: 2 @58154 has 119 MA's), (Start: 7 @58169 has 48 MA's), (14, 58277), (16, 58289), (17, 58340), (18, 58343), (22, 58367), (24, 58415),

Gene: Norm\_113 Start: 58756, Stop: 59022, Start Num: 2

Candidate Starts for Norm\_113:

(Start: 2 @58756 has 119 MA's), (Start: 7 @58771 has 48 MA's), (14, 58879), (16, 58891), (17, 58942), (18, 58945), (22, 58969),

Gene: NuevoMundo\_117 Start: 60350, Stop: 60601, Start Num: 7

Candidate Starts for NuevoMundo\_117:

(Start: 2 @60335 has 119 MA's), (Start: 7 @60350 has 48 MA's), (14, 60458), (16, 60470), (17, 60521), (18, 60524), (22, 60548),

Gene: ParkTD\_113 Start: 58057, Stop: 58323, Start Num: 2

Candidate Starts for ParkTD\_113:

(Start: 2 @58057 has 119 MA's), (Start: 7 @58072 has 48 MA's), (14, 58180), (16, 58192), (17, 58243), (18, 58246), (22, 58270),

Gene: Patter\_112 Start: 56606, Stop: 56872, Start Num: 2

Candidate Starts for Patter\_112:

(Start: 2 @56606 has 119 MA's), (Start: 7 @56621 has 48 MA's), (14, 56729), (16, 56741), (17, 56792), (18, 56795), (22, 56819),

Gene: Phabba\_111 Start: 55223, Stop: 55465, Start Num: 6

Candidate Starts for Phabba\_111:

(Start: 6 @55223 has 2 MA's), (8, 55235), (9, 55238), (12, 55286), (13, 55313), (23, 55436),

Gene: Phlegm\_114 Start: 56604, Stop: 56855, Start Num: 7

Candidate Starts for Phlegm\_114:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Phox\_109 Start: 58337, Stop: 58603, Start Num: 2

Candidate Starts for Phox\_109:

(Start: 2 @58337 has 119 MA's), (Start: 7 @58352 has 48 MA's), (14, 58460), (16, 58472), (17, 58523), (18, 58526), (22, 58550),

Gene: Phusco\_112 Start: 57354, Stop: 57620, Start Num: 2

Candidate Starts for Phusco\_112:

(Start: 2 @57354 has 119 MA's), (Start: 7 @57369 has 48 MA's), (14, 57477), (16, 57489), (17, 57540), (18, 57543), (22, 57567),

Gene: Pier\_116 Start: 60343, Stop: 60609, Start Num: 2

Candidate Starts for Pier\_116:

(Start: 2 @60343 has 119 MA's), (Start: 7 @60358 has 48 MA's), (14, 60466), (16, 60478), (17, 60529), (18, 60532), (22, 60556),

Gene: Pinkcreek\_103 Start: 55678, Stop: 55944, Start Num: 2

Candidate Starts for Pinkcreek\_103:

(Start: 2 @55678 has 119 MA's), (Start: 7 @55693 has 48 MA's), (14, 55801), (16, 55813), (17, 55864), (18, 55867), (21, 55882), (22, 55891),

Gene: Pio\_116 Start: 59947, Stop: 60213, Start Num: 2

Candidate Starts for Pio\_116:

(Start: 2 @59947 has 119 MA's), (Start: 7 @59962 has 48 MA's), (14, 60070), (16, 60082), (17, 60133), (18, 60136), (22, 60160),

Gene: Pivoine\_111 Start: 56589, Stop: 56855, Start Num: 2

Candidate Starts for Pivoine\_111:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Pleione\_115 Start: 58239, Stop: 58490, Start Num: 7

Candidate Starts for Pleione\_115:

(Start: 2 @58224 has 119 MA's), (Start: 7 @58239 has 48 MA's), (14, 58347), (16, 58359), (17, 58410), (18, 58413), (22, 58437),

Gene: Pupper\_104 Start: 60747, Stop: 60956, Start Num: 5

Candidate Starts for Pupper\_104:

(Start: 5 @60747 has 4 MA's), (9, 60765), (10, 60771), (13, 60834), (15, 60846), (18, 60885), (19, 60888), (20, 60894),

Gene: PurduePete\_112 Start: 58481, Stop: 58747, Start Num: 2

Candidate Starts for PurduePete\_112:

(Start: 2 @58481 has 119 MA's), (Start: 7 @58496 has 48 MA's), (14, 58604), (16, 58616), (17, 58667), (18, 58670), (22, 58694),

Gene: QBert\_106 Start: 57061, Stop: 57327, Start Num: 2

Candidate Starts for QBert\_106:

(Start: 2 @57061 has 119 MA's), (Start: 7 @57076 has 48 MA's), (14, 57184), (16, 57196), (17, 57247), (18, 57250), (22, 57274),

Gene: Quasimodo\_113 Start: 58016, Stop: 58282, Start Num: 2

Candidate Starts for Quasimodo\_113:

(Start: 2 @58016 has 119 MA's), (Start: 7 @58031 has 48 MA's), (14, 58139), (16, 58151), (17, 58202), (18, 58205), (22, 58229),

Gene: Rabinovish\_109 Start: 58269, Stop: 58520, Start Num: 7

Candidate Starts for Rabinovish\_109:

(Start: 2 @58254 has 119 MA's), (Start: 7 @58269 has 48 MA's), (14, 58377), (16, 58389), (17, 58440), (18, 58443), (22, 58467),

Gene: Rahel\_111 Start: 56946, Stop: 57212, Start Num: 2

Candidate Starts for Rahel\_111:

(Start: 2 @56946 has 119 MA's), (Start: 7 @56961 has 48 MA's), (14, 57069), (16, 57081), (17, 57132), (18, 57135), (22, 57159),

Gene: Rizal\_107 Start: 56094, Stop: 56360, Start Num: 2

Candidate Starts for Rizal\_107:

(Start: 2 @56094 has 119 MA's), (Start: 7 @56109 has 48 MA's), (14, 56217), (16, 56229), (17, 56280), (18, 56283), (22, 56307),

Gene: RoMag\_107 Start: 57267, Stop: 57533, Start Num: 2

Candidate Starts for RoMag\_107:

(Start: 2 @57267 has 119 MA's), (Start: 7 @57282 has 48 MA's), (14, 57390), (16, 57402), (17, 57453), (18, 57456), (22, 57480), (24, 57528),

Gene: Ronan\_106 Start: 55232, Stop: 55483, Start Num: 7

Candidate Starts for Ronan\_106:

(Start: 2 @55217 has 119 MA's), (Start: 7 @55232 has 48 MA's), (14, 55340), (16, 55352), (17, 55403), (18, 55406), (22, 55430),

Gene: Roots515\_110 Start: 58254, Stop: 58520, Start Num: 2

Candidate Starts for Roots515\_110:

(Start: 2 @58254 has 119 MA's), (Start: 7 @58269 has 48 MA's), (14, 58377), (16, 58389), (17, 58440), (18, 58443), (22, 58467),

Gene: SCentae\_103 Start: 60893, Stop: 61102, Start Num: 5

Candidate Starts for SCentae\_103:

(Start: 5 @60893 has 4 MA's), (9, 60911), (10, 60917), (13, 60980), (15, 60992), (18, 61031), (19, 61034), (20, 61040),

Gene: Salacia\_116 Start: 58410, Stop: 58661, Start Num: 7

Candidate Starts for Salacia\_116:

(Start: 2 @58395 has 119 MA's), (Start: 7 @58410 has 48 MA's), (14, 58518), (16, 58530), (17, 58581), (18, 58584), (22, 58608),

Gene: Sauce\_112 Start: 57001, Stop: 57267, Start Num: 2

Candidate Starts for Sauce\_112:

(Start: 2 @57001 has 119 MA's), (Start: 7 @57016 has 48 MA's), (14, 57124), (16, 57136), (17, 57187), (18, 57190), (22, 57214),

Gene: ScoobyDoobyDoo\_102 Start: 54803, Stop: 55045, Start Num: 6

Candidate Starts for ScoobyDoobyDoo\_102:

(3, 54794), (4, 54800), (Start: 6 @54803 has 2 MA's), (8, 54815), (9, 54818), (10, 54824), (11, 54860),

Gene: ScottMcG\_108 Start: 57032, Stop: 57283, Start Num: 7

Candidate Starts for ScottMcG\_108:

(Start: 2 @57017 has 119 MA's), (Start: 7 @57032 has 48 MA's), (14, 57140), (16, 57152), (17, 57203), (18, 57206), (22, 57230), (24, 57278),

Gene: Sebata\_112 Start: 58485, Stop: 58736, Start Num: 7

Candidate Starts for Sebata\_112:

(Start: 2 @58470 has 119 MA's), (Start: 7 @58485 has 48 MA's), (14, 58593), (16, 58605), (17, 58656), (18, 58659), (22, 58683),

Gene: Shaqnato\_105 Start: 56061, Stop: 56327, Start Num: 2

Candidate Starts for Shaqnato\_105:

(Start: 2 @56061 has 119 MA's), (Start: 7 @56076 has 48 MA's), (14, 56184), (16, 56196), (17, 56247), (18, 56250), (22, 56274),

Gene: Shelob\_114 Start: 58843, Stop: 59109, Start Num: 2

Candidate Starts for Shelob\_114:

(Start: 2 @58843 has 119 MA's), (Start: 7 @58858 has 48 MA's), (14, 58966), (16, 58978), (17, 59029), (18, 59032), (22, 59056),

Gene: ShiaLabeouf\_111 Start: 57381, Stop: 57647, Start Num: 2

Candidate Starts for ShiaLabeouf\_111:

(Start: 2 @57381 has 119 MA's), (Start: 7 @57396 has 48 MA's), (14, 57504), (16, 57516), (17, 57567), (18, 57570), (22, 57594),

Gene: Shifa\_99 Start: 55852, Stop: 56118, Start Num: 2

Candidate Starts for Shifa\_99:

(Start: 2 @55852 has 119 MA's), (Start: 7 @55867 has 48 MA's), (14, 55975), (16, 55987), (17, 56038), (18, 56041), (21, 56056), (22, 56065),

Gene: Shnickers\_112 Start: 57345, Stop: 57611, Start Num: 2

Candidate Starts for Shnickers\_112:

(Start: 2 @57345 has 119 MA's), (Start: 7 @57360 has 48 MA's), (14, 57468), (16, 57480), (17, 57531), (18, 57534), (22, 57558),

Gene: Shrimp\_112 Start: 58080, Stop: 58331, Start Num: 7

Candidate Starts for Shrimp\_112:

(Start: 2 @58065 has 119 MA's), (Start: 7 @58080 has 48 MA's), (14, 58188), (16, 58200), (17, 58251), (18, 58254), (22, 58278),

Gene: SilverDipper\_113 Start: 56589, Stop: 56855, Start Num: 2

Candidate Starts for SilverDipper\_113:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Skog\_167 Start: 91814, Stop: 92023, Start Num: 5

Candidate Starts for Skog\_167:

(1, 91802), (Start: 5 @91814 has 4 MA's), (9, 91832), (10, 91838), (13, 91901), (19, 91955), (20, 91961),

Gene: SmallFry\_112 Start: 56570, Stop: 56836, Start Num: 2

Candidate Starts for SmallFry\_112:

(Start: 2 @56570 has 119 MA's), (Start: 7 @56585 has 48 MA's), (14, 56693), (16, 56705), (17, 56756), (18, 56759), (22, 56783),

Gene: Spec\_107 Start: 57125, Stop: 57376, Start Num: 7

Candidate Starts for Spec\_107:

(Start: 2 @57110 has 119 MA's), (Start: 7 @57125 has 48 MA's), (14, 57233), (16, 57245), (17, 57296), (18, 57299), (22, 57323),

Gene: Specks\_117 Start: 59245, Stop: 59511, Start Num: 2

Candidate Starts for Specks\_117:

(Start: 2 @59245 has 119 MA's), (Start: 7 @59260 has 48 MA's), (14, 59368), (16, 59380), (17, 59431), (18, 59434), (22, 59458),

Gene: Sprinklers\_108 Start: 56641, Stop: 56892, Start Num: 7

Candidate Starts for Sprinklers\_108:

(Start: 2 @56626 has 119 MA's), (Start: 7 @56641 has 48 MA's), (14, 56749), (16, 56761), (17, 56812), (18, 56815), (22, 56839),

Gene: Spud\_111 Start: 58141, Stop: 58407, Start Num: 2

Candidate Starts for Spud\_111:

(Start: 2 @58141 has 119 MA's), (Start: 7 @58156 has 48 MA's), (14, 58264), (16, 58276), (17, 58327), (18, 58330), (22, 58354),

Gene: SrishMeg2525\_111 Start: 58163, Stop: 58429, Start Num: 2

Candidate Starts for SrishMeg2525\_111:

(Start: 2 @58163 has 119 MA's), (Start: 7 @58178 has 48 MA's), (14, 58286), (16, 58298), (17, 58349), (18, 58352), (22, 58376),

Gene: StephanieG\_110 Start: 58987, Stop: 59238, Start Num: 7

Candidate Starts for StephanieG\_110:

(Start: 2 @58972 has 119 MA's), (Start: 7 @58987 has 48 MA's), (14, 59095), (16, 59107), (17, 59158), (18, 59161), (22, 59185), (24, 59233),

Gene: Stubby\_104 Start: 56168, Stop: 56434, Start Num: 2

Candidate Starts for Stubby\_104:

(Start: 2 @56168 has 119 MA's), (Start: 7 @56183 has 48 MA's), (14, 56291), (16, 56303), (18, 56357), (22, 56381),

Gene: StubbySaigey\_115 Start: 56759, Stop: 57025, Start Num: 2

Candidate Starts for StubbySaigey\_115:

(Start: 2 @56759 has 119 MA's), (Start: 7 @56774 has 48 MA's), (14, 56882), (16, 56894), (17, 56945), (18, 56948), (22, 56972), (24, 57020),

Gene: Teardrop\_111 Start: 56569, Stop: 56835, Start Num: 2

Candidate Starts for Teardrop\_111:

(Start: 2 @56569 has 119 MA's), (Start: 7 @56584 has 48 MA's), (14, 56692), (16, 56704), (17, 56755), (18, 56758), (22, 56782),

Gene: TinyTim\_112 Start: 57821, Stop: 58087, Start Num: 2

Candidate Starts for TinyTim\_112:

(Start: 2 @57821 has 119 MA's), (Start: 7 @57836 has 48 MA's), (14, 57944), (16, 57956), (17, 58007), (18, 58010), (22, 58034),

Gene: Tonenili\_126 Start: 61299, Stop: 61550, Start Num: 7

Candidate Starts for Tonenili\_126:

(Start: 2 @61284 has 119 MA's), (Start: 7 @61299 has 48 MA's), (11, 61359), (14, 61407), (16, 61419), (17, 61470), (20, 61482),

Gene: Tortoise16\_109 Start: 57170, Stop: 57436, Start Num: 2

Candidate Starts for Tortoise16\_109:

(Start: 2 @57170 has 119 MA's), (Start: 7 @57185 has 48 MA's), (14, 57293), (16, 57305), (17, 57356), (18, 57359), (22, 57383), (24, 57431),

Gene: Trinitium\_109 Start: 56540, Stop: 56791, Start Num: 7

Candidate Starts for Trinitium\_109:

(Start: 2 @56525 has 119 MA's), (Start: 7 @56540 has 48 MA's), (14, 56648), (16, 56660), (17, 56711), (18, 56714), (22, 56738), (24, 56786),

Gene: Turret\_107 Start: 55970, Stop: 56236, Start Num: 2

Candidate Starts for Turret\_107:

(Start: 2 @55970 has 119 MA's), (Start: 7 @55985 has 48 MA's), (14, 56093), (16, 56105), (17, 56156), (18, 56159), (22, 56183), (24, 56231),

Gene: Tyke\_112 Start: 58476, Stop: 58742, Start Num: 2

Candidate Starts for Tyke\_112:

(Start: 2 @58476 has 119 MA's), (Start: 7 @58491 has 48 MA's), (14, 58599), (16, 58611), (17, 58662), (18, 58665), (22, 58689),

Gene: ValleyTerrace\_112 Start: 56589, Stop: 56855, Start Num: 2

Candidate Starts for ValleyTerrace\_112:

(Start: 2 @56589 has 119 MA's), (Start: 7 @56604 has 48 MA's), (14, 56712), (16, 56724), (17, 56775), (18, 56778), (22, 56802),

Gene: Wally\_111 Start: 56599, Stop: 56865, Start Num: 2

Candidate Starts for Wally\_111:

(Start: 2 @56599 has 119 MA's), (Start: 7 @56614 has 48 MA's), (14, 56722), (16, 56734), (17, 56785), (18, 56788), (22, 56812), (24, 56860),

Gene: Willis\_113 Start: 57971, Stop: 58222, Start Num: 7

Candidate Starts for Willis\_113:

(Start: 2 @57956 has 119 MA's), (Start: 7 @57971 has 48 MA's), (14, 58079), (16, 58091), (17, 58142), (18, 58145), (22, 58169),

Gene: Yassified\_109 Start: 56676, Stop: 56942, Start Num: 2

Candidate Starts for Yassified\_109:

(Start: 2 @56676 has 119 MA's), (Start: 7 @56691 has 48 MA's), (14, 56799), (16, 56811), (17, 56862), (18, 56865), (22, 56889),

Gene: YemiJoy2021\_113 Start: 58058, Stop: 58324, Start Num: 2

Candidate Starts for YemiJoy2021\_113:

(Start: 2 @58058 has 119 MA's), (Start: 7 @58073 has 48 MA's), (14, 58181), (16, 58193), (17, 58244), (18, 58247), (22, 58271),

Gene: YoungMoneyMata\_113 Start: 57240, Stop: 57491, Start Num: 7

Candidate Starts for YoungMoneyMata\_113:

(Start: 2 @57225 has 119 MA's), (Start: 7 @57240 has 48 MA's), (14, 57348), (16, 57360), (17, 57411), (18, 57414), (22, 57438),

Gene: Yucca\_111 Start: 57740, Stop: 58006, Start Num: 2

Candidate Starts for Yucca\_111:

(Start: 2 @57740 has 119 MA's), (Start: 7 @57755 has 48 MA's), (14, 57863), (16, 57875), (17, 57926), (18, 57929), (22, 57953),

Gene: Zalkecks\_113 Start: 57741, Stop: 58007, Start Num: 2

Candidate Starts for Zalkecks\_113:

(Start: 2 @57741 has 119 MA's), (Start: 7 @57756 has 48 MA's), (14, 57864), (16, 57876), (17, 57927), (18, 57930), (22, 57954),

Gene: Zeenon\_113 Start: 57826, Stop: 58092, Start Num: 2

Candidate Starts for Zeenon\_113:

(Start: 2 @57826 has 119 MA's), (Start: 7 @57841 has 48 MA's), (14, 57949), (16, 57961), (17, 58012), (18, 58015), (22, 58039),

Gene: ZygoTaiga\_110 Start: 58986, Stop: 59252, Start Num: 2

Candidate Starts for ZygoTaiga\_110:

(Start: 2 @58986 has 119 MA's), (Start: 7 @59001 has 48 MA's), (14, 59109), (16, 59121), (17, 59172), (18, 59175), (22, 59199),