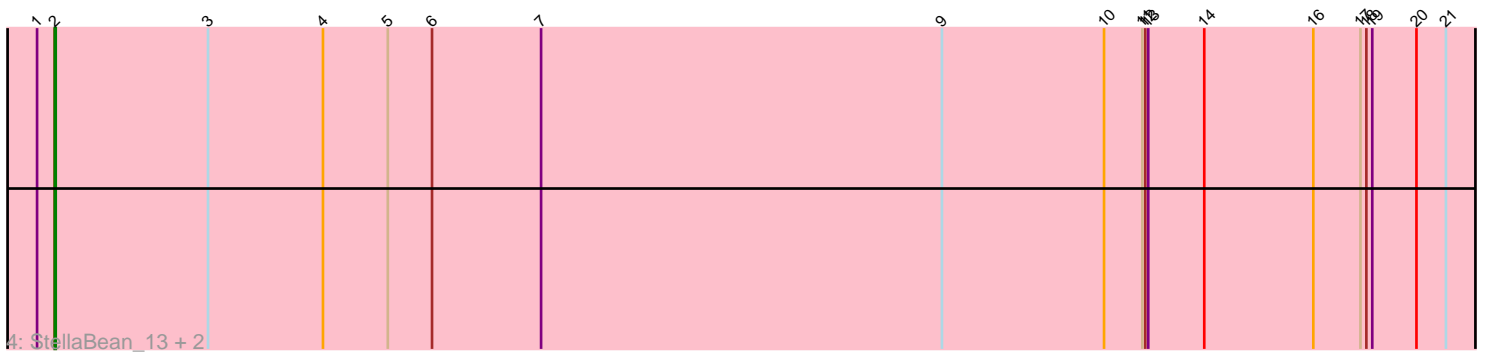
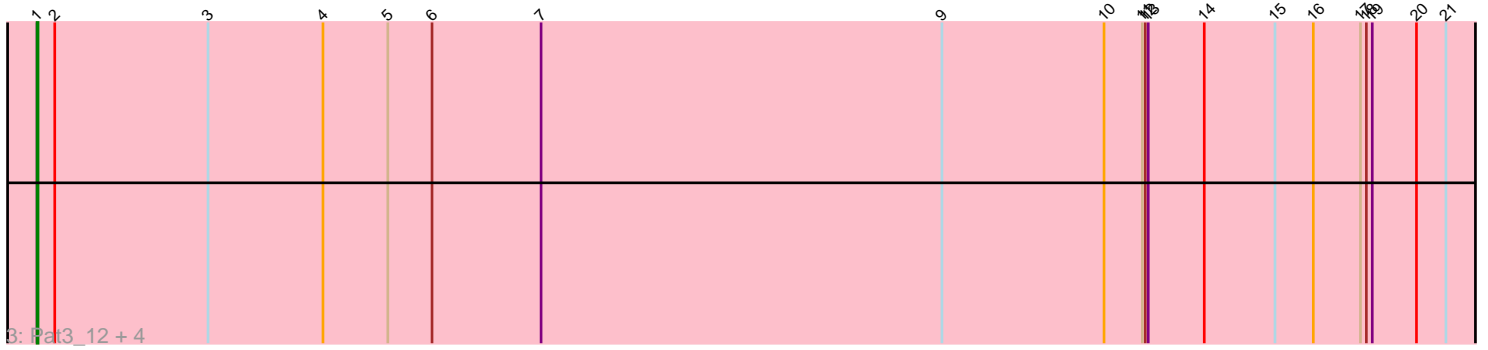
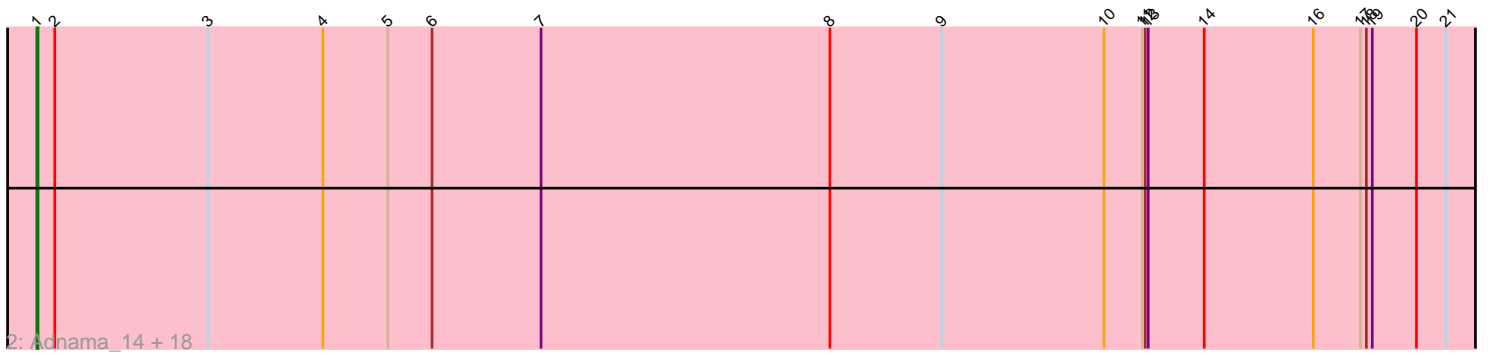
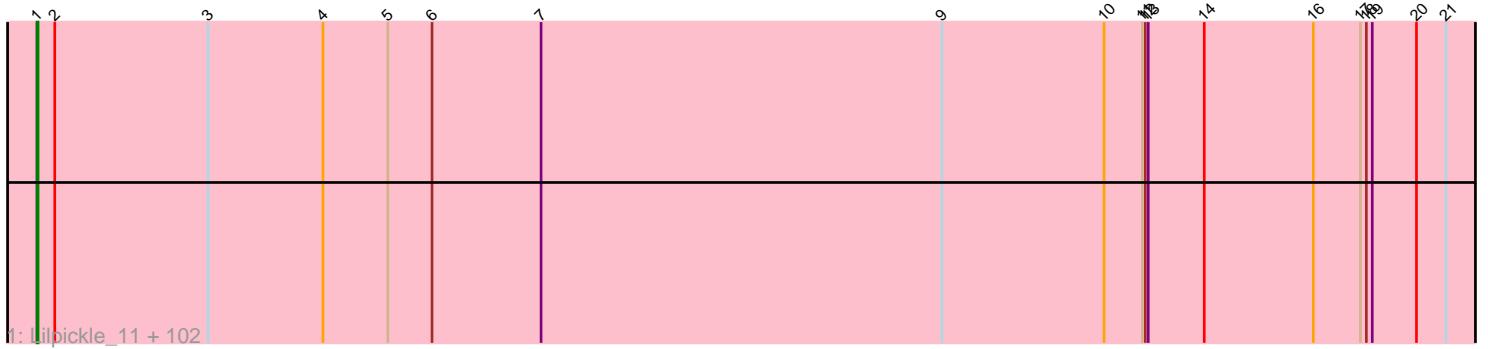


Pham 160236



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 160236 Report

This analysis was run 04/28/24 on database version 559.

Pham number 160236 has 130 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Lilpickle\_11, Petra64142\_13, DoctorDiddles\_13, BigBubba\_12, Palpatine\_12, Bruin\_12, IHOP\_12, Thresher\_13, GoldenSpark\_14, OrionPax\_13, Cookies\_13, Lilizi\_14, Hopey\_13, MISSy\_12, Willez\_12, HanKaySha\_13, Bask21\_12, Qualification\_14, Filch\_13, Terminus\_12, Rakim\_14, Dusk\_12, Bench\_14, Balomoji\_12, Gator\_11, CrystalP\_13, 244\_13, Stark\_13, Maxxinista\_13, Tomaszewski\_12, Mindy\_13, FireRed\_12, Hoonter\_14, Mosby\_12, Cjw1\_12, Ukulele\_12, BugsBunny\_10, MPhalcon\_12, Marshmallow\_13, TBrady12\_14, Icee\_12, Harella\_11, Misfit\_12, ChosenOne\_11, YassJohnny\_13, Moldemort\_13, ShamWow\_13, Sotrice96\_13, Rimmer\_12, Simpliphy\_13, SophKB\_13, Teaspoon\_12, Buck\_12, Pumpkin\_13, Czystczon1\_13, Kostya\_13, Highbury\_13, Cactus\_14, Henry\_13, Phaja\_12, RiverMonster\_12, TeardropMSU\_12, ABCat\_12, Nimrod\_12, SirDuracell\_12, Youngblood\_12, Emmina\_12, Elph10\_13, BilboSwaggins\_13, DrDrey\_13, Goldilocks\_14, Tuco\_13, Holt\_14, StolenFromERC\_14, Toto\_13, Elite2014\_11, Contagion\_12, Sassay\_12, ChotaBhai\_12, MadamMonkfish\_12, Murica\_11, Policronamos\_12, Inca\_12, Barbarian\_12, Asriel\_12, Traaww1\_11, Phrux\_12, PhatBacter\_12, Myrale\_13, Flypotenuse\_11, Lilac\_14, Dumbo\_12, JeTaime\_14, Phaux\_11, Porky\_11, Nala\_12, Amao\_13, Glexan\_11, BadStone\_12, NoSleep\_13, xkcd\_13, HufflyPuff\_11, Saints25\_13
- Track 2 : Adnama\_14, ShereKhan\_14, AmericanBeauty\_14, Easy2Say\_13, Pharsalus\_13, Command613\_14, Miniwave\_13, NelitzaMV\_13, Stank\_14, Kanye\_14, Xandras\_14, Argent26\_14, GooberAzure\_14, Wiggin\_14, Paperbeatsrock\_14, Murphy\_12, Gemini\_14, Tarkin\_14, Kimchi\_14
- Track 3 : Pat3\_12, Manda\_12, BaboJay\_12, Goku\_13, Eureka\_12
- Track 4 : StellaBean\_13, Daikon\_11, Gage\_14

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

The start number called the most often in the published annotations is 1, it was called in 118 of the 119 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244\_13, ABCat\_12, Adnama\_14, Amao\_13, AmericanBeauty\_14, Argent26\_14, Asriel\_12, BaboJay\_12, BadStone\_12, Balomoji\_12, Barbarian\_12, Bask21\_12,

Bench\_14, BigBubba\_12, BilboSwaggins\_13, Bruin\_12, Buck\_12, BugsBunny\_10, Cactus\_14, ChosenOne\_11, ChotaBhai\_12, Cjw1\_12, Command613\_14, Contagion\_12, Cookies\_13, CrystalP\_13, Czyszczone1\_13, DoctorDiddles\_13, DrDrey\_13, Dumbo\_12, Dusk\_12, Easy2Say\_13, Elite2014\_11, Elph10\_13, Emmina\_12, Eureka\_12, Filch\_13, FireRed\_12, Flypotenuse\_11, Gator\_11, Gemini\_14, Glexan\_11, Goku\_13, GoldenSpark\_14, Goldilocks\_14, GooberAzure\_14, HanKaySha\_13, Harella\_11, Henry\_13, Highbury\_13, Holt\_14, Hoonter\_14, Hopey\_13, HuffyPuff\_11, IHOP\_12, Icee\_12, Inca\_12, JeTaime\_14, Kanye\_14, Kimchi\_14, Kostya\_13, Lilac\_14, Lilizi\_14, Lilipickle\_11, MISSy\_12, MPhalcon\_12, MadamMonkfish\_12, Manda\_12, Marshmallow\_13, Maxxinista\_13, Mindy\_13, Miniwave\_13, Misfit\_12, Moldemort\_13, Mosby\_12, Murica\_11, Murphy\_12, Myrale\_13, Nala\_12, NelitzaMV\_13, Nimrod\_12, NoSleep\_13, OrionPax\_13, Palpatine\_12, Paperbeatsrock\_14, Pat3\_12, Petra64142\_13, Phaja\_12, Pharsalus\_13, PhatBacter\_12, Phaux\_11, Phrux\_12, Policronamos\_12, Porky\_11, Pumpkin\_13, Quallification\_14, Rakim\_14, Rimmer\_12, RiverMonster\_12, Saints25\_13, Sassay\_12, ShamWow\_13, ShereKhan\_14, Simpliphy\_13, SirDuracell\_12, SophKB\_13, Sotrice96\_13, Stank\_14, Stark\_13, StolenFromERC\_14, TBrady12\_14, Tarkin\_14, TeardropMSU\_12, Teaspoon\_12, Terminus\_12, Thresher\_13, Tomaszewski\_12, Toto\_13, Traaww1\_11, Tuco\_13, Ukulele\_12, Wiggin\_14, Willez\_12, Xandras\_14, YassJohnny\_13, Youngblood\_12, xkcd\_13,

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

- Daikon\_11, Gage\_14, StellaBean\_13,

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

- 

### Summary by start number:

Start 1:

- Found in 130 of 130 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 118 of 119
- Called 97.7% of time when present
- Phage (with cluster) where this start called: 244\_13 (E), ABCat\_12 (E), Adnama\_14 (E), Amao\_13 (E), AmericanBeauty\_14 (E), Argent26\_14 (E), Asriel\_12 (E), BaboJay\_12 (E), BadStone\_12 (E), Balomoji\_12 (E), Barbarian\_12 (E), Bask21\_12 (E), Bench\_14 (E), BigBubba\_12 (E), BilboSwaggins\_13 (E), Bruin\_12 (E), Buck\_12 (E), BugsBunny\_10 (E), Cactus\_14 (E), ChosenOne\_11 (E), ChotaBhai\_12 (E), Cjw1\_12 (E), Command613\_14 (E), Contagion\_12 (E), Cookies\_13 (E), CrystalP\_13 (E), Czyszczone1\_13 (E), DoctorDiddles\_13 (E), DrDrey\_13 (E), Dumbo\_12 (E), Dusk\_12 (E), Easy2Say\_13 (E), Elite2014\_11 (E), Elph10\_13 (E), Emmina\_12 (E), Eureka\_12 (E), Filch\_13 (E), FireRed\_12 (E), Flypotenuse\_11 (E), Gator\_11 (E), Gemini\_14 (E), Glexan\_11 (E), Goku\_13 (E), GoldenSpark\_14 (E), Goldilocks\_14 (E), GooberAzure\_14 (E), HanKaySha\_13 (E), Harella\_11 (E), Henry\_13 (E), Highbury\_13 (E), Holt\_14 (E), Hoonter\_14 (E), Hopey\_13 (E), HuffyPuff\_11 (E), IHOP\_12 (E), Icee\_12 (E), Inca\_12 (E), JeTaime\_14 (E), Kanye\_14 (E), Kimchi\_14 (E), Kostya\_13 (E), Lilac\_14 (E), Lilizi\_14 (E), Lilipickle\_11 (E), MISSy\_12 (E), MPhalcon\_12 (E), MadamMonkfish\_12 (E), Manda\_12 (E), Marshmallow\_13 (E), Maxxinista\_13 (E), Mindy\_13 (E), Miniwave\_13 (E), Misfit\_12 (E), Moldemort\_13 (E), Mosby\_12 (E), Murica\_11 (E), Murphy\_12 (E), Myrale\_13 (E), Nala\_12 (E), NelitzaMV\_13 (E), Nimrod\_12 (E), NoSleep\_13 (E), OrionPax\_13 (E), Palpatine\_12 (E), Paperbeatsrock\_14 (E), Pat3\_12 (E), Petra64142\_13 (E), Phaja\_12 (E),

Pharsalus\_13 (E), PhatBacter\_12 (E), Phaux\_11 (E), Phrux\_12 (E), Policronamos\_12 (E), Porky\_11 (E), Pumpkin\_13 (E), Quallification\_14 (E), Rakim\_14 (E), Rimmer\_12 (E), RiverMonster\_12 (E), Saints25\_13 (E), Sassay\_12 (E), ShamWow\_13 (E), ShereKhan\_14 (E), Simpliphy\_13 (E), SirDuracell\_12 (E), SophKB\_13 (E), Sotrice96\_13 (E), Stank\_14 (E), Stark\_13 (E), StolenFromERC\_14 (E), TBrady12\_14 (E), Tarkin\_14 (E), TeardropMSU\_12 (E), Teaspoon\_12 (E), Terminus\_12 (E), Thresher\_13 (E), Tomaszewski\_12 (E), Toto\_13 (E), Traaww1\_11 (E), Tuco\_13 (E), Ukulele\_12 (E), Wiggin\_14 (E), Willez\_12 (E), Xandras\_14 (E), YassJohnny\_13 (E), Youngblood\_12 (E), xkcd\_13 (E),

Start 2:

- Found in 130 of 130 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 2.3% of time when present
- Phage (with cluster) where this start called: Daikon\_11 (E), Gage\_14 (E), StellaBean\_13 (E),

### Summary by clusters:

There is one cluster represented in this pham: E

Info for manual annotations of cluster E:

- Start number 1 was manually annotated 118 times for cluster E.
- Start number 2 was manually annotated 1 time for cluster E.

### Gene Information:

Gene: 244\_13 Start: 7106, Stop: 8599, Start Num: 1

Candidate Starts for 244\_13:

(Start: 1 @7106 has 118 MA's), (Start: 2 @7124 has 1 MA's), (3, 7280), (4, 7397), (5, 7463), (6, 7508), (7, 7619), (9, 8027), (10, 8192), (11, 8231), (12, 8234), (13, 8237), (14, 8294), (16, 8405), (17, 8453), (18, 8459), (19, 8465), (20, 8510), (21, 8540),

Gene: ABCat\_12 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for ABCat\_12:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Adnama\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Adnama\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Amao\_13 Start: 7132, Stop: 8625, Start Num: 1

Candidate Starts for Amao\_13:

(Start: 1 @7132 has 118 MA's), (Start: 2 @7150 has 1 MA's), (3, 7306), (4, 7423), (5, 7489), (6, 7534), (7, 7645), (9, 8053), (10, 8218), (11, 8257), (12, 8260), (13, 8263), (14, 8320), (16, 8431), (17, 8479), (18, 8485), (19, 8491), (20, 8536), (21, 8566),

Gene: AmericanBeauty\_14 Start: 7335, Stop: 8828, Start Num: 1

Candidate Starts for AmericanBeauty\_14:

(Start: 1 @7335 has 118 MA's), (Start: 2 @7353 has 1 MA's), (3, 7509), (4, 7626), (5, 7692), (6, 7737), (7, 7848), (8, 8142), (9, 8256), (10, 8421), (11, 8460), (12, 8463), (13, 8466), (14, 8523), (16, 8634), (17, 8682), (18, 8688), (19, 8694), (20, 8739), (21, 8769),

Gene: Argent26\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Argent26\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Asriel\_12 Start: 6799, Stop: 8292, Start Num: 1

Candidate Starts for Asriel\_12:

(Start: 1 @6799 has 118 MA's), (Start: 2 @6817 has 1 MA's), (3, 6973), (4, 7090), (5, 7156), (6, 7201), (7, 7312), (9, 7720), (10, 7885), (11, 7924), (12, 7927), (13, 7930), (14, 7987), (16, 8098), (17, 8146), (18, 8152), (19, 8158), (20, 8203), (21, 8233),

Gene: BaboJay\_12 Start: 7458, Stop: 8954, Start Num: 1

Candidate Starts for BaboJay\_12:

(Start: 1 @7458 has 118 MA's), (Start: 2 @7476 has 1 MA's), (3, 7632), (4, 7749), (5, 7815), (6, 7860), (7, 7971), (9, 8379), (10, 8544), (11, 8583), (12, 8586), (13, 8589), (14, 8646), (15, 8718), (16, 8757), (17, 8805), (18, 8811), (19, 8817), (20, 8862), (21, 8892),

Gene: BadStone\_12 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for BadStone\_12:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Balomoji\_12 Start: 7661, Stop: 9154, Start Num: 1

Candidate Starts for Balomoji\_12:

(Start: 1 @7661 has 118 MA's), (Start: 2 @7679 has 1 MA's), (3, 7835), (4, 7952), (5, 8018), (6, 8063), (7, 8174), (9, 8582), (10, 8747), (11, 8786), (12, 8789), (13, 8792), (14, 8849), (16, 8960), (17, 9008), (18, 9014), (19, 9020), (20, 9065), (21, 9095),

Gene: Barbarian\_12 Start: 6799, Stop: 8292, Start Num: 1

Candidate Starts for Barbarian\_12:

(Start: 1 @6799 has 118 MA's), (Start: 2 @6817 has 1 MA's), (3, 6973), (4, 7090), (5, 7156), (6, 7201), (7, 7312), (9, 7720), (10, 7885), (11, 7924), (12, 7927), (13, 7930), (14, 7987), (16, 8098), (17, 8146), (18, 8152), (19, 8158), (20, 8203), (21, 8233),

Gene: Bask21\_12 Start: 6594, Stop: 8087, Start Num: 1

Candidate Starts for Bask21\_12:

(Start: 1 @6594 has 118 MA's), (Start: 2 @6612 has 1 MA's), (3, 6768), (4, 6885), (5, 6951), (6, 6996), (7, 7107), (9, 7515), (10, 7680), (11, 7719), (12, 7722), (13, 7725), (14, 7782), (16, 7893), (17, 7941), (18, 7947), (19, 7953), (20, 7998), (21, 8028),

Gene: Bench\_14 Start: 7211, Stop: 8704, Start Num: 1

Candidate Starts for Bench\_14:

(Start: 1 @7211 has 118 MA's), (Start: 2 @7229 has 1 MA's), (3, 7385), (4, 7502), (5, 7568), (6, 7613), (7, 7724), (9, 8132), (10, 8297), (11, 8336), (12, 8339), (13, 8342), (14, 8399), (16, 8510), (17, 8558), (18, 8564), (19, 8570), (20, 8615), (21, 8645),

Gene: BigBubba\_12 Start: 6594, Stop: 8087, Start Num: 1

Candidate Starts for BigBubba\_12:

(Start: 1 @6594 has 118 MA's), (Start: 2 @6612 has 1 MA's), (3, 6768), (4, 6885), (5, 6951), (6, 6996), (7, 7107), (9, 7515), (10, 7680), (11, 7719), (12, 7722), (13, 7725), (14, 7782), (16, 7893), (17, 7941), (18, 7947), (19, 7953), (20, 7998), (21, 8028),

Gene: BilboSwaggins\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for BilboSwaggins\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Bruin\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Bruin\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Buck\_12 Start: 7884, Stop: 9377, Start Num: 1

Candidate Starts for Buck\_12:

(Start: 1 @7884 has 118 MA's), (Start: 2 @7902 has 1 MA's), (3, 8058), (4, 8175), (5, 8241), (6, 8286), (7, 8397), (9, 8805), (10, 8970), (11, 9009), (12, 9012), (13, 9015), (14, 9072), (16, 9183), (17, 9231), (18, 9237), (19, 9243), (20, 9288), (21, 9318),

Gene: BugsBunny\_10 Start: 7001, Stop: 8494, Start Num: 1

Candidate Starts for BugsBunny\_10:

(Start: 1 @7001 has 118 MA's), (Start: 2 @7019 has 1 MA's), (3, 7175), (4, 7292), (5, 7358), (6, 7403), (7, 7514), (9, 7922), (10, 8087), (11, 8126), (12, 8129), (13, 8132), (14, 8189), (16, 8300), (17, 8348), (18, 8354), (19, 8360), (20, 8405), (21, 8435),

Gene: Cactus\_14 Start: 7140, Stop: 8633, Start Num: 1

Candidate Starts for Cactus\_14:

(Start: 1 @7140 has 118 MA's), (Start: 2 @7158 has 1 MA's), (3, 7314), (4, 7431), (5, 7497), (6, 7542), (7, 7653), (9, 8061), (10, 8226), (11, 8265), (12, 8268), (13, 8271), (14, 8328), (16, 8439), (17, 8487), (18, 8493), (19, 8499), (20, 8544), (21, 8574),

Gene: ChosenOne\_11 Start: 6558, Stop: 8051, Start Num: 1

Candidate Starts for ChosenOne\_11:

(Start: 1 @6558 has 118 MA's), (Start: 2 @6576 has 1 MA's), (3, 6732), (4, 6849), (5, 6915), (6, 6960), (7, 7071), (9, 7479), (10, 7644), (11, 7683), (12, 7686), (13, 7689), (14, 7746), (16, 7857), (17, 7905), (18, 7911), (19, 7917), (20, 7962), (21, 7992),

Gene: ChotaBhai\_12 Start: 6594, Stop: 8087, Start Num: 1

Candidate Starts for ChotaBhai\_12:

(Start: 1 @6594 has 118 MA's), (Start: 2 @6612 has 1 MA's), (3, 6768), (4, 6885), (5, 6951), (6, 6996), (7, 7107), (9, 7515), (10, 7680), (11, 7719), (12, 7722), (13, 7725), (14, 7782), (16, 7893), (17, 7941), (18, 7947), (19, 7953), (20, 7998), (21, 8028),

Gene: Cjw1\_12 Start: 8108, Stop: 9601, Start Num: 1

Candidate Starts for Cjw1\_12:

(Start: 1 @8108 has 118 MA's), (Start: 2 @8126 has 1 MA's), (3, 8282), (4, 8399), (5, 8465), (6, 8510), (7, 8621), (9, 9029), (10, 9194), (11, 9233), (12, 9236), (13, 9239), (14, 9296), (16, 9407), (17, 9455),

(18, 9461), (19, 9467), (20, 9512), (21, 9542),

Gene: Command613\_14 Start: 8196, Stop: 9689, Start Num: 1

Candidate Starts for Command613\_14:

(Start: 1 @8196 has 118 MA's), (Start: 2 @8214 has 1 MA's), (3, 8370), (4, 8487), (5, 8553), (6, 8598), (7, 8709), (8, 9003), (9, 9117), (10, 9282), (11, 9321), (12, 9324), (13, 9327), (14, 9384), (16, 9495), (17, 9543), (18, 9549), (19, 9555), (20, 9600), (21, 9630),

Gene: Contagion\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Contagion\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Cookies\_13 Start: 7800, Stop: 9293, Start Num: 1

Candidate Starts for Cookies\_13:

(Start: 1 @7800 has 118 MA's), (Start: 2 @7818 has 1 MA's), (3, 7974), (4, 8091), (5, 8157), (6, 8202), (7, 8313), (9, 8721), (10, 8886), (11, 8925), (12, 8928), (13, 8931), (14, 8988), (16, 9099), (17, 9147), (18, 9153), (19, 9159), (20, 9204), (21, 9234),

Gene: CrystalP\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for CrystalP\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Czyszczone1\_13 Start: 7093, Stop: 8586, Start Num: 1

Candidate Starts for Czyszczone1\_13:

(Start: 1 @7093 has 118 MA's), (Start: 2 @7111 has 1 MA's), (3, 7267), (4, 7384), (5, 7450), (6, 7495), (7, 7606), (9, 8014), (10, 8179), (11, 8218), (12, 8221), (13, 8224), (14, 8281), (16, 8392), (17, 8440), (18, 8446), (19, 8452), (20, 8497), (21, 8527),

Gene: Daikon\_11 Start: 7679, Stop: 9154, Start Num: 2

Candidate Starts for Daikon\_11:

(Start: 1 @7661 has 118 MA's), (Start: 2 @7679 has 1 MA's), (3, 7835), (4, 7952), (5, 8018), (6, 8063), (7, 8174), (9, 8582), (10, 8747), (11, 8786), (12, 8789), (13, 8792), (14, 8849), (16, 8960), (17, 9008), (18, 9014), (19, 9020), (20, 9065), (21, 9095),

Gene: DoctorDiddles\_13 Start: 7093, Stop: 8586, Start Num: 1

Candidate Starts for DoctorDiddles\_13:

(Start: 1 @7093 has 118 MA's), (Start: 2 @7111 has 1 MA's), (3, 7267), (4, 7384), (5, 7450), (6, 7495), (7, 7606), (9, 8014), (10, 8179), (11, 8218), (12, 8221), (13, 8224), (14, 8281), (16, 8392), (17, 8440), (18, 8446), (19, 8452), (20, 8497), (21, 8527),

Gene: DrDrey\_13 Start: 7834, Stop: 9327, Start Num: 1

Candidate Starts for DrDrey\_13:

(Start: 1 @7834 has 118 MA's), (Start: 2 @7852 has 1 MA's), (3, 8008), (4, 8125), (5, 8191), (6, 8236), (7, 8347), (9, 8755), (10, 8920), (11, 8959), (12, 8962), (13, 8965), (14, 9022), (16, 9133), (17, 9181), (18, 9187), (19, 9193), (20, 9238), (21, 9268),

Gene: Dumbo\_12 Start: 6815, Stop: 8308, Start Num: 1

Candidate Starts for Dumbo\_12:

(Start: 1 @6815 has 118 MA's), (Start: 2 @6833 has 1 MA's), (3, 6989), (4, 7106), (5, 7172), (6, 7217), (7, 7328), (9, 7736), (10, 7901), (11, 7940), (12, 7943), (13, 7946), (14, 8003), (16, 8114), (17, 8162), (18, 8168), (19, 8174), (20, 8219), (21, 8249),

Gene: Dusk\_12 Start: 7587, Stop: 9080, Start Num: 1

Candidate Starts for Dusk\_12:

(Start: 1 @7587 has 118 MA's), (Start: 2 @7605 has 1 MA's), (3, 7761), (4, 7878), (5, 7944), (6, 7989), (7, 8100), (9, 8508), (10, 8673), (11, 8712), (12, 8715), (13, 8718), (14, 8775), (16, 8886), (17, 8934), (18, 8940), (19, 8946), (20, 8991), (21, 9021),

Gene: Easy2Say\_13 Start: 8081, Stop: 9574, Start Num: 1

Candidate Starts for Easy2Say\_13:

(Start: 1 @8081 has 118 MA's), (Start: 2 @8099 has 1 MA's), (3, 8255), (4, 8372), (5, 8438), (6, 8483), (7, 8594), (8, 8888), (9, 9002), (10, 9167), (11, 9206), (12, 9209), (13, 9212), (14, 9269), (16, 9380), (17, 9428), (18, 9434), (19, 9440), (20, 9485), (21, 9515),

Gene: Elite2014\_11 Start: 6558, Stop: 8051, Start Num: 1

Candidate Starts for Elite2014\_11:

(Start: 1 @6558 has 118 MA's), (Start: 2 @6576 has 1 MA's), (3, 6732), (4, 6849), (5, 6915), (6, 6960), (7, 7071), (9, 7479), (10, 7644), (11, 7683), (12, 7686), (13, 7689), (14, 7746), (16, 7857), (17, 7905), (18, 7911), (19, 7917), (20, 7962), (21, 7992),

Gene: Elph10\_13 Start: 6818, Stop: 8311, Start Num: 1

Candidate Starts for Elph10\_13:

(Start: 1 @6818 has 118 MA's), (Start: 2 @6836 has 1 MA's), (3, 6992), (4, 7109), (5, 7175), (6, 7220), (7, 7331), (9, 7739), (10, 7904), (11, 7943), (12, 7946), (13, 7949), (14, 8006), (16, 8117), (17, 8165), (18, 8171), (19, 8177), (20, 8222), (21, 8252),

Gene: Emmina\_12 Start: 6663, Stop: 8156, Start Num: 1

Candidate Starts for Emmina\_12:

(Start: 1 @6663 has 118 MA's), (Start: 2 @6681 has 1 MA's), (3, 6837), (4, 6954), (5, 7020), (6, 7065), (7, 7176), (9, 7584), (10, 7749), (11, 7788), (12, 7791), (13, 7794), (14, 7851), (16, 7962), (17, 8010), (18, 8016), (19, 8022), (20, 8067), (21, 8097),

Gene: Eureka\_12 Start: 7631, Stop: 9127, Start Num: 1

Candidate Starts for Eureka\_12:

(Start: 1 @7631 has 118 MA's), (Start: 2 @7649 has 1 MA's), (3, 7805), (4, 7922), (5, 7988), (6, 8033), (7, 8144), (9, 8552), (10, 8717), (11, 8756), (12, 8759), (13, 8762), (14, 8819), (15, 8891), (16, 8930), (17, 8978), (18, 8984), (19, 8990), (20, 9035), (21, 9065),

Gene: Filch\_13 Start: 7103, Stop: 8596, Start Num: 1

Candidate Starts for Filch\_13:

(Start: 1 @7103 has 118 MA's), (Start: 2 @7121 has 1 MA's), (3, 7277), (4, 7394), (5, 7460), (6, 7505), (7, 7616), (9, 8024), (10, 8189), (11, 8228), (12, 8231), (13, 8234), (14, 8291), (16, 8402), (17, 8450), (18, 8456), (19, 8462), (20, 8507), (21, 8537),

Gene: FireRed\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for FireRed\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Flypotenuse\_11 Start: 7543, Stop: 9036, Start Num: 1



Candidate Starts for Flypotenuse\_11:

(Start: 1 @7543 has 118 MA's), (Start: 2 @7561 has 1 MA's), (3, 7717), (4, 7834), (5, 7900), (6, 7945), (7, 8056), (9, 8464), (10, 8629), (11, 8668), (12, 8671), (13, 8674), (14, 8731), (16, 8842), (17, 8890), (18, 8896), (19, 8902), (20, 8947), (21, 8977),

Gene: Gage\_14 Start: 7356, Stop: 8831, Start Num: 2

Candidate Starts for Gage\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Gator\_11 Start: 7543, Stop: 9036, Start Num: 1

Candidate Starts for Gator\_11:

(Start: 1 @7543 has 118 MA's), (Start: 2 @7561 has 1 MA's), (3, 7717), (4, 7834), (5, 7900), (6, 7945), (7, 8056), (9, 8464), (10, 8629), (11, 8668), (12, 8671), (13, 8674), (14, 8731), (16, 8842), (17, 8890), (18, 8896), (19, 8902), (20, 8947), (21, 8977),

Gene: Gemini\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Gemini\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Glexan\_11 Start: 7543, Stop: 9036, Start Num: 1

Candidate Starts for Glexan\_11:

(Start: 1 @7543 has 118 MA's), (Start: 2 @7561 has 1 MA's), (3, 7717), (4, 7834), (5, 7900), (6, 7945), (7, 8056), (9, 8464), (10, 8629), (11, 8668), (12, 8671), (13, 8674), (14, 8731), (16, 8842), (17, 8890), (18, 8896), (19, 8902), (20, 8947), (21, 8977),

Gene: Goku\_13 Start: 7631, Stop: 9127, Start Num: 1

Candidate Starts for Goku\_13:

(Start: 1 @7631 has 118 MA's), (Start: 2 @7649 has 1 MA's), (3, 7805), (4, 7922), (5, 7988), (6, 8033), (7, 8144), (9, 8552), (10, 8717), (11, 8756), (12, 8759), (13, 8762), (14, 8819), (15, 8891), (16, 8930), (17, 8978), (18, 8984), (19, 8990), (20, 9035), (21, 9065),

Gene: GoldenSpark\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for GoldenSpark\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Goldilocks\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Goldilocks\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: GooberAzure\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for GooberAzure\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: HanKaySha\_13 Start: 7093, Stop: 8586, Start Num: 1

Candidate Starts for HanKaySha\_13:

(Start: 1 @7093 has 118 MA's), (Start: 2 @7111 has 1 MA's), (3, 7267), (4, 7384), (5, 7450), (6, 7495), (7, 7606), (9, 8014), (10, 8179), (11, 8218), (12, 8221), (13, 8224), (14, 8281), (16, 8392), (17, 8440), (18, 8446), (19, 8452), (20, 8497), (21, 8527),

Gene: Harella\_11 Start: 7543, Stop: 9036, Start Num: 1

Candidate Starts for Harella\_11:

(Start: 1 @7543 has 118 MA's), (Start: 2 @7561 has 1 MA's), (3, 7717), (4, 7834), (5, 7900), (6, 7945), (7, 8056), (9, 8464), (10, 8629), (11, 8668), (12, 8671), (13, 8674), (14, 8731), (16, 8842), (17, 8890), (18, 8896), (19, 8902), (20, 8947), (21, 8977),

Gene: Henry\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for Henry\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Highbury\_13 Start: 7012, Stop: 8505, Start Num: 1

Candidate Starts for Highbury\_13:

(Start: 1 @7012 has 118 MA's), (Start: 2 @7030 has 1 MA's), (3, 7186), (4, 7303), (5, 7369), (6, 7414), (7, 7525), (9, 7933), (10, 8098), (11, 8137), (12, 8140), (13, 8143), (14, 8200), (16, 8311), (17, 8359), (18, 8365), (19, 8371), (20, 8416), (21, 8446),

Gene: Holt\_14 Start: 7211, Stop: 8704, Start Num: 1

Candidate Starts for Holt\_14:

(Start: 1 @7211 has 118 MA's), (Start: 2 @7229 has 1 MA's), (3, 7385), (4, 7502), (5, 7568), (6, 7613), (7, 7724), (9, 8132), (10, 8297), (11, 8336), (12, 8339), (13, 8342), (14, 8399), (16, 8510), (17, 8558), (18, 8564), (19, 8570), (20, 8615), (21, 8645),

Gene: Hoonter\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Hoonter\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Hopey\_13 Start: 7103, Stop: 8596, Start Num: 1

Candidate Starts for Hopey\_13:

(Start: 1 @7103 has 118 MA's), (Start: 2 @7121 has 1 MA's), (3, 7277), (4, 7394), (5, 7460), (6, 7505), (7, 7616), (9, 8024), (10, 8189), (11, 8228), (12, 8231), (13, 8234), (14, 8291), (16, 8402), (17, 8450), (18, 8456), (19, 8462), (20, 8507), (21, 8537),

Gene: HufflyPuff\_11 Start: 7391, Stop: 8884, Start Num: 1

Candidate Starts for HufflyPuff\_11:

(Start: 1 @7391 has 118 MA's), (Start: 2 @7409 has 1 MA's), (3, 7565), (4, 7682), (5, 7748), (6, 7793), (7, 7904), (9, 8312), (10, 8477), (11, 8516), (12, 8519), (13, 8522), (14, 8579), (16, 8690), (17, 8738), (18, 8744), (19, 8750), (20, 8795), (21, 8825),

Gene: IHOP\_12 Start: 7587, Stop: 9080, Start Num: 1

Candidate Starts for IHOP\_12:

(Start: 1 @7587 has 118 MA's), (Start: 2 @7605 has 1 MA's), (3, 7761), (4, 7878), (5, 7944), (6, 7989), (7, 8100), (9, 8508), (10, 8673), (11, 8712), (12, 8715), (13, 8718), (14, 8775), (16, 8886), (17, 8934), (18, 8940), (19, 8946), (20, 8991), (21, 9021),

Gene: Icee\_12 Start: 7587, Stop: 9080, Start Num: 1

Candidate Starts for Icee\_12:

(Start: 1 @7587 has 118 MA's), (Start: 2 @7605 has 1 MA's), (3, 7761), (4, 7878), (5, 7944), (6, 7989), (7, 8100), (9, 8508), (10, 8673), (11, 8712), (12, 8715), (13, 8718), (14, 8775), (16, 8886), (17, 8934), (18, 8940), (19, 8946), (20, 8991), (21, 9021),

Gene: Inca\_12 Start: 6607, Stop: 8100, Start Num: 1

Candidate Starts for Inca\_12:

(Start: 1 @6607 has 118 MA's), (Start: 2 @6625 has 1 MA's), (3, 6781), (4, 6898), (5, 6964), (6, 7009), (7, 7120), (9, 7528), (10, 7693), (11, 7732), (12, 7735), (13, 7738), (14, 7795), (16, 7906), (17, 7954), (18, 7960), (19, 7966), (20, 8011), (21, 8041),

Gene: JeTaime\_14 Start: 8143, Stop: 9636, Start Num: 1

Candidate Starts for JeTaime\_14:

(Start: 1 @8143 has 118 MA's), (Start: 2 @8161 has 1 MA's), (3, 8317), (4, 8434), (5, 8500), (6, 8545), (7, 8656), (9, 9064), (10, 9229), (11, 9268), (12, 9271), (13, 9274), (14, 9331), (16, 9442), (17, 9490), (18, 9496), (19, 9502), (20, 9547), (21, 9577),

Gene: Kanye\_14 Start: 8331, Stop: 9824, Start Num: 1

Candidate Starts for Kanye\_14:

(Start: 1 @8331 has 118 MA's), (Start: 2 @8349 has 1 MA's), (3, 8505), (4, 8622), (5, 8688), (6, 8733), (7, 8844), (8, 9138), (9, 9252), (10, 9417), (11, 9456), (12, 9459), (13, 9462), (14, 9519), (16, 9630), (17, 9678), (18, 9684), (19, 9690), (20, 9735), (21, 9765),

Gene: Kimchi\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Kimchi\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Kostya\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for Kostya\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Lilac\_14 Start: 6839, Stop: 8332, Start Num: 1

Candidate Starts for Lilac\_14:

(Start: 1 @6839 has 118 MA's), (Start: 2 @6857 has 1 MA's), (3, 7013), (4, 7130), (5, 7196), (6, 7241), (7, 7352), (9, 7760), (10, 7925), (11, 7964), (12, 7967), (13, 7970), (14, 8027), (16, 8138), (17, 8186), (18, 8192), (19, 8198), (20, 8243), (21, 8273),

Gene: Lilizi\_14 Start: 7050, Stop: 8543, Start Num: 1

Candidate Starts for Lilizi\_14:

(Start: 1 @7050 has 118 MA's), (Start: 2 @7068 has 1 MA's), (3, 7224), (4, 7341), (5, 7407), (6, 7452), (7, 7563), (9, 7971), (10, 8136), (11, 8175), (12, 8178), (13, 8181), (14, 8238), (16, 8349), (17, 8397), (18, 8403), (19, 8409), (20, 8454), (21, 8484),

Gene: Lilpickle\_11 Start: 6558, Stop: 8051, Start Num: 1

Candidate Starts for Lilpickle\_11:

(Start: 1 @6558 has 118 MA's), (Start: 2 @6576 has 1 MA's), (3, 6732), (4, 6849), (5, 6915), (6, 6960), (7, 7071), (9, 7479), (10, 7644), (11, 7683), (12, 7686), (13, 7689), (14, 7746), (16, 7857), (17, 7905),

(18, 7911), (19, 7917), (20, 7962), (21, 7992),

Gene: MISSy\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for MISSy\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: MPhalcon\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for MPhalcon\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: MadamMonkfish\_12 Start: 6769, Stop: 8262, Start Num: 1

Candidate Starts for MadamMonkfish\_12:

(Start: 1 @6769 has 118 MA's), (Start: 2 @6787 has 1 MA's), (3, 6943), (4, 7060), (5, 7126), (6, 7171), (7, 7282), (9, 7690), (10, 7855), (11, 7894), (12, 7897), (13, 7900), (14, 7957), (16, 8068), (17, 8116), (18, 8122), (19, 8128), (20, 8173), (21, 8203),

Gene: Manda\_12 Start: 7621, Stop: 9117, Start Num: 1

Candidate Starts for Manda\_12:

(Start: 1 @7621 has 118 MA's), (Start: 2 @7639 has 1 MA's), (3, 7795), (4, 7912), (5, 7978), (6, 8023), (7, 8134), (9, 8542), (10, 8707), (11, 8746), (12, 8749), (13, 8752), (14, 8809), (15, 8881), (16, 8920), (17, 8968), (18, 8974), (19, 8980), (20, 9025), (21, 9055),

Gene: Marshmallow\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for Marshmallow\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Maxxinista\_13 Start: 6818, Stop: 8311, Start Num: 1

Candidate Starts for Maxxinista\_13:

(Start: 1 @6818 has 118 MA's), (Start: 2 @6836 has 1 MA's), (3, 6992), (4, 7109), (5, 7175), (6, 7220), (7, 7331), (9, 7739), (10, 7904), (11, 7943), (12, 7946), (13, 7949), (14, 8006), (16, 8117), (17, 8165), (18, 8171), (19, 8177), (20, 8222), (21, 8252),

Gene: Mindy\_13 Start: 7705, Stop: 9198, Start Num: 1

Candidate Starts for Mindy\_13:

(Start: 1 @7705 has 118 MA's), (Start: 2 @7723 has 1 MA's), (3, 7879), (4, 7996), (5, 8062), (6, 8107), (7, 8218), (9, 8626), (10, 8791), (11, 8830), (12, 8833), (13, 8836), (14, 8893), (16, 9004), (17, 9052), (18, 9058), (19, 9064), (20, 9109), (21, 9139),

Gene: Miniwave\_13 Start: 8125, Stop: 9618, Start Num: 1

Candidate Starts for Miniwave\_13:

(Start: 1 @8125 has 118 MA's), (Start: 2 @8143 has 1 MA's), (3, 8299), (4, 8416), (5, 8482), (6, 8527), (7, 8638), (8, 8932), (9, 9046), (10, 9211), (11, 9250), (12, 9253), (13, 9256), (14, 9313), (16, 9424), (17, 9472), (18, 9478), (19, 9484), (20, 9529), (21, 9559),

Gene: Misfit\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Misfit\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Moldemort\_13 Start: 7093, Stop: 8586, Start Num: 1

Candidate Starts for Moldemort\_13:

(Start: 1 @7093 has 118 MA's), (Start: 2 @7111 has 1 MA's), (3, 7267), (4, 7384), (5, 7450), (6, 7495), (7, 7606), (9, 8014), (10, 8179), (11, 8218), (12, 8221), (13, 8224), (14, 8281), (16, 8392), (17, 8440), (18, 8446), (19, 8452), (20, 8497), (21, 8527),

Gene: Mosby\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Mosby\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Murica\_11 Start: 7391, Stop: 8884, Start Num: 1

Candidate Starts for Murica\_11:

(Start: 1 @7391 has 118 MA's), (Start: 2 @7409 has 1 MA's), (3, 7565), (4, 7682), (5, 7748), (6, 7793), (7, 7904), (9, 8312), (10, 8477), (11, 8516), (12, 8519), (13, 8522), (14, 8579), (16, 8690), (17, 8738), (18, 8744), (19, 8750), (20, 8795), (21, 8825),

Gene: Murphy\_12 Start: 6810, Stop: 8303, Start Num: 1

Candidate Starts for Murphy\_12:

(Start: 1 @6810 has 118 MA's), (Start: 2 @6828 has 1 MA's), (3, 6984), (4, 7101), (5, 7167), (6, 7212), (7, 7323), (8, 7617), (9, 7731), (10, 7896), (11, 7935), (12, 7938), (13, 7941), (14, 7998), (16, 8109), (17, 8157), (18, 8163), (19, 8169), (20, 8214), (21, 8244),

Gene: Myrale\_13 Start: 7798, Stop: 9291, Start Num: 1

Candidate Starts for Myrale\_13:

(Start: 1 @7798 has 118 MA's), (Start: 2 @7816 has 1 MA's), (3, 7972), (4, 8089), (5, 8155), (6, 8200), (7, 8311), (9, 8719), (10, 8884), (11, 8923), (12, 8926), (13, 8929), (14, 8986), (16, 9097), (17, 9145), (18, 9151), (19, 9157), (20, 9202), (21, 9232),

Gene: Nala\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Nala\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: NelitzaMV\_13 Start: 7996, Stop: 9489, Start Num: 1

Candidate Starts for NelitzaMV\_13:

(Start: 1 @7996 has 118 MA's), (Start: 2 @8014 has 1 MA's), (3, 8170), (4, 8287), (5, 8353), (6, 8398), (7, 8509), (8, 8803), (9, 8917), (10, 9082), (11, 9121), (12, 9124), (13, 9127), (14, 9184), (16, 9295), (17, 9343), (18, 9349), (19, 9355), (20, 9400), (21, 9430),

Gene: Nimrod\_12 Start: 7590, Stop: 9083, Start Num: 1

Candidate Starts for Nimrod\_12:

(Start: 1 @7590 has 118 MA's), (Start: 2 @7608 has 1 MA's), (3, 7764), (4, 7881), (5, 7947), (6, 7992), (7, 8103), (9, 8511), (10, 8676), (11, 8715), (12, 8718), (13, 8721), (14, 8778), (16, 8889), (17, 8937), (18, 8943), (19, 8949), (20, 8994), (21, 9024),

Gene: NoSleep\_13 Start: 7090, Stop: 8583, Start Num: 1

Candidate Starts for NoSleep\_13:

(Start: 1 @7090 has 118 MA's), (Start: 2 @7108 has 1 MA's), (3, 7264), (4, 7381), (5, 7447), (6, 7492), (7, 7603), (9, 8011), (10, 8176), (11, 8215), (12, 8218), (13, 8221), (14, 8278), (16, 8389), (17, 8437), (18, 8443), (19, 8449), (20, 8494), (21, 8524),

Gene: OrionPax\_13 Start: 7093, Stop: 8586, Start Num: 1

Candidate Starts for OrionPax\_13:

(Start: 1 @7093 has 118 MA's), (Start: 2 @7111 has 1 MA's), (3, 7267), (4, 7384), (5, 7450), (6, 7495), (7, 7606), (9, 8014), (10, 8179), (11, 8218), (12, 8221), (13, 8224), (14, 8281), (16, 8392), (17, 8440), (18, 8446), (19, 8452), (20, 8497), (21, 8527),

Gene: Palpatine\_12 Start: 7432, Stop: 8925, Start Num: 1

Candidate Starts for Palpatine\_12:

(Start: 1 @7432 has 118 MA's), (Start: 2 @7450 has 1 MA's), (3, 7606), (4, 7723), (5, 7789), (6, 7834), (7, 7945), (9, 8353), (10, 8518), (11, 8557), (12, 8560), (13, 8563), (14, 8620), (16, 8731), (17, 8779), (18, 8785), (19, 8791), (20, 8836), (21, 8866),

Gene: Paperbeatsrock\_14 Start: 8325, Stop: 9818, Start Num: 1

Candidate Starts for Paperbeatsrock\_14:

(Start: 1 @8325 has 118 MA's), (Start: 2 @8343 has 1 MA's), (3, 8499), (4, 8616), (5, 8682), (6, 8727), (7, 8838), (8, 9132), (9, 9246), (10, 9411), (11, 9450), (12, 9453), (13, 9456), (14, 9513), (16, 9624), (17, 9672), (18, 9678), (19, 9684), (20, 9729), (21, 9759),

Gene: Pat3\_12 Start: 6634, Stop: 8130, Start Num: 1

Candidate Starts for Pat3\_12:

(Start: 1 @6634 has 118 MA's), (Start: 2 @6652 has 1 MA's), (3, 6808), (4, 6925), (5, 6991), (6, 7036), (7, 7147), (9, 7555), (10, 7720), (11, 7759), (12, 7762), (13, 7765), (14, 7822), (15, 7894), (16, 7933), (17, 7981), (18, 7987), (19, 7993), (20, 8038), (21, 8068),

Gene: Petra64142\_13 Start: 7806, Stop: 9299, Start Num: 1

Candidate Starts for Petra64142\_13:

(Start: 1 @7806 has 118 MA's), (Start: 2 @7824 has 1 MA's), (3, 7980), (4, 8097), (5, 8163), (6, 8208), (7, 8319), (9, 8727), (10, 8892), (11, 8931), (12, 8934), (13, 8937), (14, 8994), (16, 9105), (17, 9153), (18, 9159), (19, 9165), (20, 9210), (21, 9240),

Gene: Phaja\_12 Start: 7587, Stop: 9080, Start Num: 1

Candidate Starts for Phaja\_12:

(Start: 1 @7587 has 118 MA's), (Start: 2 @7605 has 1 MA's), (3, 7761), (4, 7878), (5, 7944), (6, 7989), (7, 8100), (9, 8508), (10, 8673), (11, 8712), (12, 8715), (13, 8718), (14, 8775), (16, 8886), (17, 8934), (18, 8940), (19, 8946), (20, 8991), (21, 9021),

Gene: Pharsalus\_13 Start: 8125, Stop: 9618, Start Num: 1

Candidate Starts for Pharsalus\_13:

(Start: 1 @8125 has 118 MA's), (Start: 2 @8143 has 1 MA's), (3, 8299), (4, 8416), (5, 8482), (6, 8527), (7, 8638), (8, 8932), (9, 9046), (10, 9211), (11, 9250), (12, 9253), (13, 9256), (14, 9313), (16, 9424), (17, 9472), (18, 9478), (19, 9484), (20, 9529), (21, 9559),

Gene: PhatBacter\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for PhatBacter\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Phaux\_11 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Phaux\_11:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Phrux\_12 Start: 7089, Stop: 8582, Start Num: 1

Candidate Starts for Phrux\_12:

(Start: 1 @7089 has 118 MA's), (Start: 2 @7107 has 1 MA's), (3, 7263), (4, 7380), (5, 7446), (6, 7491), (7, 7602), (9, 8010), (10, 8175), (11, 8214), (12, 8217), (13, 8220), (14, 8277), (16, 8388), (17, 8436), (18, 8442), (19, 8448), (20, 8493), (21, 8523),

Gene: Policronamos\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Policronamos\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Porky\_11 Start: 6663, Stop: 8156, Start Num: 1

Candidate Starts for Porky\_11:

(Start: 1 @6663 has 118 MA's), (Start: 2 @6681 has 1 MA's), (3, 6837), (4, 6954), (5, 7020), (6, 7065), (7, 7176), (9, 7584), (10, 7749), (11, 7788), (12, 7791), (13, 7794), (14, 7851), (16, 7962), (17, 8010), (18, 8016), (19, 8022), (20, 8067), (21, 8097),

Gene: Pumpkin\_13 Start: 6906, Stop: 8399, Start Num: 1

Candidate Starts for Pumpkin\_13:

(Start: 1 @6906 has 118 MA's), (Start: 2 @6924 has 1 MA's), (3, 7080), (4, 7197), (5, 7263), (6, 7308), (7, 7419), (9, 7827), (10, 7992), (11, 8031), (12, 8034), (13, 8037), (14, 8094), (16, 8205), (17, 8253), (18, 8259), (19, 8265), (20, 8310), (21, 8340),

Gene: Quallification\_14 Start: 8133, Stop: 9626, Start Num: 1

Candidate Starts for Quallification\_14:

(Start: 1 @8133 has 118 MA's), (Start: 2 @8151 has 1 MA's), (3, 8307), (4, 8424), (5, 8490), (6, 8535), (7, 8646), (9, 9054), (10, 9219), (11, 9258), (12, 9261), (13, 9264), (14, 9321), (16, 9432), (17, 9480), (18, 9486), (19, 9492), (20, 9537), (21, 9567),

Gene: Rakim\_14 Start: 8040, Stop: 9533, Start Num: 1

Candidate Starts for Rakim\_14:

(Start: 1 @8040 has 118 MA's), (Start: 2 @8058 has 1 MA's), (3, 8214), (4, 8331), (5, 8397), (6, 8442), (7, 8553), (9, 8961), (10, 9126), (11, 9165), (12, 9168), (13, 9171), (14, 9228), (16, 9339), (17, 9387), (18, 9393), (19, 9399), (20, 9444), (21, 9474),

Gene: Rimmer\_12 Start: 7494, Stop: 8987, Start Num: 1

Candidate Starts for Rimmer\_12:

(Start: 1 @7494 has 118 MA's), (Start: 2 @7512 has 1 MA's), (3, 7668), (4, 7785), (5, 7851), (6, 7896), (7, 8007), (9, 8415), (10, 8580), (11, 8619), (12, 8622), (13, 8625), (14, 8682), (16, 8793), (17, 8841), (18, 8847), (19, 8853), (20, 8898), (21, 8928),

Gene: RiverMonster\_12 Start: 7103, Stop: 8596, Start Num: 1

Candidate Starts for RiverMonster\_12:

(Start: 1 @7103 has 118 MA's), (Start: 2 @7121 has 1 MA's), (3, 7277), (4, 7394), (5, 7460), (6, 7505), (7, 7616), (9, 8024), (10, 8189), (11, 8228), (12, 8231), (13, 8234), (14, 8291), (16, 8402), (17, 8450), (18, 8456), (19, 8462), (20, 8507), (21, 8537),

Gene: Saints25\_13 Start: 7012, Stop: 8505, Start Num: 1

Candidate Starts for Saints25\_13:

(Start: 1 @7012 has 118 MA's), (Start: 2 @7030 has 1 MA's), (3, 7186), (4, 7303), (5, 7369), (6, 7414), (7, 7525), (9, 7933), (10, 8098), (11, 8137), (12, 8140), (13, 8143), (14, 8200), (16, 8311), (17, 8359), (18, 8365), (19, 8371), (20, 8416), (21, 8446),

Gene: Sassay\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Sassay\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: ShamWow\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for ShamWow\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: ShereKhan\_14 Start: 8331, Stop: 9824, Start Num: 1

Candidate Starts for ShereKhan\_14:

(Start: 1 @8331 has 118 MA's), (Start: 2 @8349 has 1 MA's), (3, 8505), (4, 8622), (5, 8688), (6, 8733), (7, 8844), (8, 9138), (9, 9252), (10, 9417), (11, 9456), (12, 9459), (13, 9462), (14, 9519), (16, 9630), (17, 9678), (18, 9684), (19, 9690), (20, 9735), (21, 9765),

Gene: Simpliphy\_13 Start: 7093, Stop: 8586, Start Num: 1

Candidate Starts for Simpliphy\_13:

(Start: 1 @7093 has 118 MA's), (Start: 2 @7111 has 1 MA's), (3, 7267), (4, 7384), (5, 7450), (6, 7495), (7, 7606), (9, 8014), (10, 8179), (11, 8218), (12, 8221), (13, 8224), (14, 8281), (16, 8392), (17, 8440), (18, 8446), (19, 8452), (20, 8497), (21, 8527),

Gene: SirDuracell\_12 Start: 6594, Stop: 8087, Start Num: 1

Candidate Starts for SirDuracell\_12:

(Start: 1 @6594 has 118 MA's), (Start: 2 @6612 has 1 MA's), (3, 6768), (4, 6885), (5, 6951), (6, 6996), (7, 7107), (9, 7515), (10, 7680), (11, 7719), (12, 7722), (13, 7725), (14, 7782), (16, 7893), (17, 7941), (18, 7947), (19, 7953), (20, 7998), (21, 8028),

Gene: SophKB\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for SophKB\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Sotrice96\_13 Start: 7883, Stop: 9376, Start Num: 1

Candidate Starts for Sotrice96\_13:

(Start: 1 @7883 has 118 MA's), (Start: 2 @7901 has 1 MA's), (3, 8057), (4, 8174), (5, 8240), (6, 8285), (7, 8396), (9, 8804), (10, 8969), (11, 9008), (12, 9011), (13, 9014), (14, 9071), (16, 9182), (17, 9230), (18, 9236), (19, 9242), (20, 9287), (21, 9317),

Gene: Stank\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Stank\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637),



(17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Stark\_13 Start: 7106, Stop: 8599, Start Num: 1

Candidate Starts for Stark\_13:

(Start: 1 @7106 has 118 MA's), (Start: 2 @7124 has 1 MA's), (3, 7280), (4, 7397), (5, 7463), (6, 7508), (7, 7619), (9, 8027), (10, 8192), (11, 8231), (12, 8234), (13, 8237), (14, 8294), (16, 8405), (17, 8453), (18, 8459), (19, 8465), (20, 8510), (21, 8540),

Gene: StellaBean\_13 Start: 7945, Stop: 9420, Start Num: 2

Candidate Starts for StellaBean\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: StolenFromERC\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for StolenFromERC\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: TBrady12\_14 Start: 7335, Stop: 8828, Start Num: 1

Candidate Starts for TBrady12\_14:

(Start: 1 @7335 has 118 MA's), (Start: 2 @7353 has 1 MA's), (3, 7509), (4, 7626), (5, 7692), (6, 7737), (7, 7848), (9, 8256), (10, 8421), (11, 8460), (12, 8463), (13, 8466), (14, 8523), (16, 8634), (17, 8682), (18, 8688), (19, 8694), (20, 8739), (21, 8769),

Gene: Tarkin\_14 Start: 8334, Stop: 9827, Start Num: 1

Candidate Starts for Tarkin\_14:

(Start: 1 @8334 has 118 MA's), (Start: 2 @8352 has 1 MA's), (3, 8508), (4, 8625), (5, 8691), (6, 8736), (7, 8847), (8, 9141), (9, 9255), (10, 9420), (11, 9459), (12, 9462), (13, 9465), (14, 9522), (16, 9633), (17, 9681), (18, 9687), (19, 9693), (20, 9738), (21, 9768),

Gene: TeardropMSU\_12 Start: 7834, Stop: 9327, Start Num: 1

Candidate Starts for TeardropMSU\_12:

(Start: 1 @7834 has 118 MA's), (Start: 2 @7852 has 1 MA's), (3, 8008), (4, 8125), (5, 8191), (6, 8236), (7, 8347), (9, 8755), (10, 8920), (11, 8959), (12, 8962), (13, 8965), (14, 9022), (16, 9133), (17, 9181), (18, 9187), (19, 9193), (20, 9238), (21, 9268),

Gene: Teaspoon\_12 Start: 6832, Stop: 8325, Start Num: 1

Candidate Starts for Teaspoon\_12:

(Start: 1 @6832 has 118 MA's), (Start: 2 @6850 has 1 MA's), (3, 7006), (4, 7123), (5, 7189), (6, 7234), (7, 7345), (9, 7753), (10, 7918), (11, 7957), (12, 7960), (13, 7963), (14, 8020), (16, 8131), (17, 8179), (18, 8185), (19, 8191), (20, 8236), (21, 8266),

Gene: Terminus\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Terminus\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Thresher\_13 Start: 8096, Stop: 9589, Start Num: 1

Candidate Starts for Thresher\_13:

(Start: 1 @8096 has 118 MA's), (Start: 2 @8114 has 1 MA's), (3, 8270), (4, 8387), (5, 8453), (6, 8498), (7, 8609), (9, 9017), (10, 9182), (11, 9221), (12, 9224), (13, 9227), (14, 9284), (16, 9395), (17, 9443), (18, 9449), (19, 9455), (20, 9500), (21, 9530),

Gene: Tomaszewski\_12 Start: 7528, Stop: 9021, Start Num: 1

Candidate Starts for Tomaszewski\_12:

(Start: 1 @7528 has 118 MA's), (Start: 2 @7546 has 1 MA's), (3, 7702), (4, 7819), (5, 7885), (6, 7930), (7, 8041), (9, 8449), (10, 8614), (11, 8653), (12, 8656), (13, 8659), (14, 8716), (16, 8827), (17, 8875), (18, 8881), (19, 8887), (20, 8932), (21, 8962),

Gene: Toto\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for Toto\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Traaww1\_11 Start: 7573, Stop: 9066, Start Num: 1

Candidate Starts for Traaww1\_11:

(Start: 1 @7573 has 118 MA's), (Start: 2 @7591 has 1 MA's), (3, 7747), (4, 7864), (5, 7930), (6, 7975), (7, 8086), (9, 8494), (10, 8659), (11, 8698), (12, 8701), (13, 8704), (14, 8761), (16, 8872), (17, 8920), (18, 8926), (19, 8932), (20, 8977), (21, 9007),

Gene: Tuco\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for Tuco\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Ukulele\_12 Start: 7106, Stop: 8599, Start Num: 1

Candidate Starts for Ukulele\_12:

(Start: 1 @7106 has 118 MA's), (Start: 2 @7124 has 1 MA's), (3, 7280), (4, 7397), (5, 7463), (6, 7508), (7, 7619), (9, 8027), (10, 8192), (11, 8231), (12, 8234), (13, 8237), (14, 8294), (16, 8405), (17, 8453), (18, 8459), (19, 8465), (20, 8510), (21, 8540),

Gene: Wiggin\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Wiggin\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: Willez\_12 Start: 7435, Stop: 8928, Start Num: 1

Candidate Starts for Willez\_12:

(Start: 1 @7435 has 118 MA's), (Start: 2 @7453 has 1 MA's), (3, 7609), (4, 7726), (5, 7792), (6, 7837), (7, 7948), (9, 8356), (10, 8521), (11, 8560), (12, 8563), (13, 8566), (14, 8623), (16, 8734), (17, 8782), (18, 8788), (19, 8794), (20, 8839), (21, 8869),

Gene: Xandras\_14 Start: 7338, Stop: 8831, Start Num: 1

Candidate Starts for Xandras\_14:

(Start: 1 @7338 has 118 MA's), (Start: 2 @7356 has 1 MA's), (3, 7512), (4, 7629), (5, 7695), (6, 7740), (7, 7851), (8, 8145), (9, 8259), (10, 8424), (11, 8463), (12, 8466), (13, 8469), (14, 8526), (16, 8637), (17, 8685), (18, 8691), (19, 8697), (20, 8742), (21, 8772),

Gene: YassJohnny\_13 Start: 7927, Stop: 9420, Start Num: 1

Candidate Starts for YassJohnny\_13:

(Start: 1 @7927 has 118 MA's), (Start: 2 @7945 has 1 MA's), (3, 8101), (4, 8218), (5, 8284), (6, 8329), (7, 8440), (9, 8848), (10, 9013), (11, 9052), (12, 9055), (13, 9058), (14, 9115), (16, 9226), (17, 9274), (18, 9280), (19, 9286), (20, 9331), (21, 9361),

Gene: Youngblood\_12 Start: 7516, Stop: 9009, Start Num: 1

Candidate Starts for Youngblood\_12:

(Start: 1 @7516 has 118 MA's), (Start: 2 @7534 has 1 MA's), (3, 7690), (4, 7807), (5, 7873), (6, 7918), (7, 8029), (9, 8437), (10, 8602), (11, 8641), (12, 8644), (13, 8647), (14, 8704), (16, 8815), (17, 8863), (18, 8869), (19, 8875), (20, 8920), (21, 8950),

Gene: xkcd\_13 Start: 7587, Stop: 9080, Start Num: 1

Candidate Starts for xkcd\_13:

(Start: 1 @7587 has 118 MA's), (Start: 2 @7605 has 1 MA's), (3, 7761), (4, 7878), (5, 7944), (6, 7989), (7, 8100), (9, 8508), (10, 8673), (11, 8712), (12, 8715), (13, 8718), (14, 8775), (16, 8886), (17, 8934), (18, 8940), (19, 8946), (20, 8991), (21, 9021),