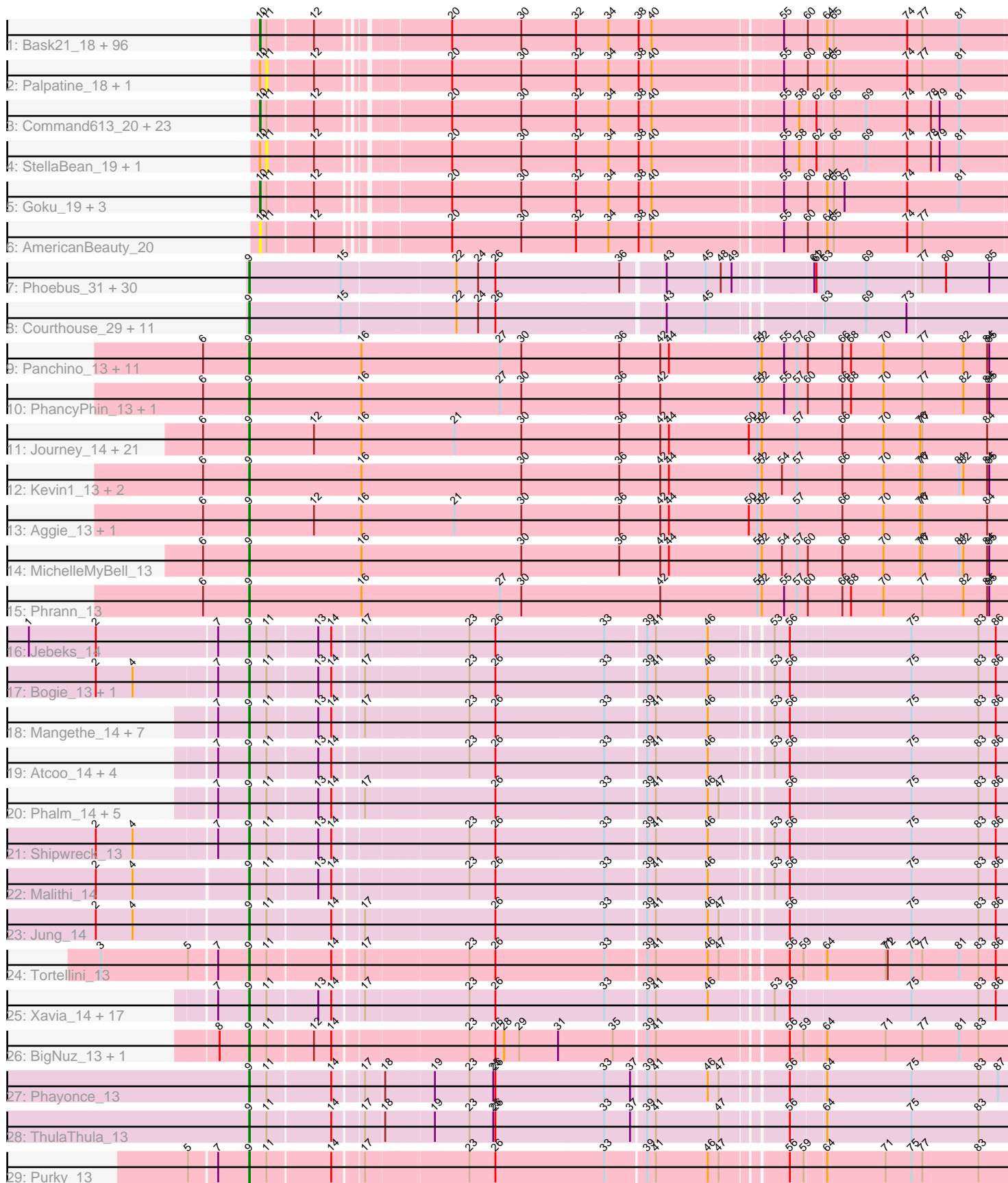


Pham 163308



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 163308 Report

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

Pham number 163308 has 265 members, 24 are drafts.

Phages represented in each track:

- Track 1 : Bask21\_18, Lilpickle\_17, Petra64142\_19, DoctorDiddles\_19, FireRed\_18, BigBubba\_18, Gage\_20, Bruin\_18, Thresher\_19, IHOP\_18, MISSy\_18, Willez\_18, Hopey\_19, HanKaySha\_19, Cactus\_20, OrionPax\_19, Gemini\_20, Filch\_19, Lilac\_20, Misfit\_18, JeTaimé\_20, Icee\_18, Goldilocks\_20, Tarkin\_20, Tomaszewski\_18, Paperbeatsrock\_20, 244\_19, Stark\_19, Manda\_19, Mosby\_18, Ukulele\_18, ChosenOne\_17, BugsBunny\_16, Kimchi\_20, MPhalcon\_18, Marshmallow\_19, ShereKhan\_20, Stank\_20, YassJohnny\_19, Teaspoon\_18, Sotrice96\_19, Cookies\_19, Rimmer\_18, Simpliphy\_19, Pharsalus\_19, Argent26\_20, Pumpkin\_19, Xandras\_20, Buck\_18, Wiggin\_20, Highbury\_19, RiverMonster\_18, Phaja\_18, StolenFromERC\_20, Holt\_20, Moldemort\_19, SirDuracell\_18, Youngblood\_18, Emmina\_18, Nimrod\_18, Elph10\_19, DrDrey\_19, Czystczon1\_19, ChotaBhai\_18, Sassay\_18, Elite2014\_17, Barbarian\_18, Murica\_17, Murphy\_18, Policronamos\_18, MadamMonkfish\_18, xkcd\_19, TBrady12\_20, Inca\_18, GoldenSpark\_20, Asriel\_18, Traaww1\_17, Phrux\_18, PhatBacter\_18, Bench\_20, Easy2Say\_19, Maxxinista\_19, Dumbo\_18, Nala\_18, Kanye\_20, Porky\_17, Hoonter\_20, HufflyPuff\_17, Phaux\_17, Terminus\_18, NoSleep\_19, Contagion\_18, GooberAzure\_20, Saints25\_19, Lilizi\_20, Cjw1\_18, Adnama\_20
- Track 2 : Palpatine\_18, Amao\_19
- Track 3 : Command613\_20, Dusk\_18, Balomoji\_18, Miniwave\_19, Gator\_17, Mindy\_19, CrystalP\_19, Rakim\_20, Harella\_17, ShamWow\_19, SophKB\_19, NelitzaMV\_19, Henry\_19, Quallification\_20, ABCat\_18, TeardropMSU\_18, Kostya\_19, Toto\_19, Myrale\_19, Glexan\_17, Tuco\_19, Flypotenuse\_17, Daikon\_17, BadStone\_18
- Track 4 : StellaBean\_19, BilboSwaggins\_19
- Track 5 : Goku\_19, BaboJay\_18, Eureka\_19, Pat3\_18
- Track 6 : AmericanBeauty\_20
- Track 7 : Phoebus\_31, NihilNomen\_30, BAKA\_28, Dove\_30, Dallas\_31, HokkenD\_26, Yeet\_29, Odette\_31, Minerva\_31, ThreeRngTarjay\_30, Constella\_26, Hughesyang\_30, EricMillard\_31, Pound\_31, Schatzie\_29, Wanda\_32, Halley\_31, Optimus\_29, Bobby\_32, Duke13\_28, Zelink\_32, Kalah2\_32, Bagrid\_29, Klein\_31, Ejimix\_32, Redno2\_30, DmpstrDiver\_30, Beem\_31, JuicyJay\_32, Thibault\_27, Bombitas\_28
- Track 8 : Courthouse\_29, Porcelain\_28, Ariel\_29, Gonephishing\_27, Superphikiman\_29, Lucky2013\_29, LittleE\_29, Hannaconda\_26, Omega\_31, Squint\_28, MiaZeal\_29, KashFlow\_23
- Track 9 : Panchino\_13, Snekmaggedon\_13, SkinnyPete\_13, ShrimpFriedEgg\_13, Raymond7\_13, Nenae\_13, Jamie19\_13, Rebel\_13, Purgamenstris\_13,

- BabeRuth\_13, SpongeBob\_13, Redi\_13
- Track 10 : PhancyPhin\_13, Shweta\_13
  - Track 11 : Journey\_14, Andies\_13, Smurph\_13, Tapioca\_13, Gex\_13, Xerxes\_13, Bosection6\_13, Chewbacca\_13, Pipsqueaks\_13, Silvafighter\_13, Charlie\_13, Duplicity\_13, Xeno\_13, Melville\_13, Schnauzer\_13, Phloss\_13, Fulbright\_13, Magsby\_13, Philonius\_13, Scitech\_13, Carcharodon\_13, Parmesanjohn\_13
  - Track 12 : Kevin1\_13, Butters\_13, Rubeelu\_13
  - Track 13 : Aggie\_13, Silvy\_13
  - Track 14 : MichelleMyBell\_13
  - Track 15 : Phrann\_13
  - Track 16 : Jebeks\_14
  - Track 17 : Bogie\_13, Pygmy\_13
  - Track 18 : Mangethe\_14, Langerak\_14, Majeke\_14, Donovan\_14, Techage\_14, Arib1\_14, Phegusus\_14, Sonah\_14
  - Track 19 : Atcoo\_14, Thespiis\_14, Camster\_14, Willsammy\_14, Brusacorram\_14
  - Track 20 : Phalm\_14, StressBall\_14, Megidido\_14, KilKor\_14, CactusJack\_14, Glaske\_14
  - Track 21 : Shipwreck\_13
  - Track 22 : Malithi\_14
  - Track 23 : Jung\_14
  - Track 24 : Tortellini\_13
  - Track 25 : Xavia\_14, HUHilltop\_14, Ksquared\_14, Dynamo\_14, Polkaroo\_14, Fishburne\_14, Zilizebeth\_14, Necropolis\_14, Bunnies\_14, Bartholomew\_14, Vidya\_14, Venti\_14, GreaseLightnin\_14, Phineas\_14, StevieRay\_14, Kari\_14, FirstPlacePfu\_14, Juniormint\_14
  - Track 26 : BigNuz\_13, Nazo\_13
  - Track 27 : Phayonce\_13
  - Track 28 : ThulaThula\_13
  - Track 29 : Purky\_13

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

The start number called the most often in the published annotations is 9, it was called in 122 of the 241 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aggie\_13, Andies\_13, Arib1\_14, Ariel\_29, Atcoo\_14, BAKA\_28, BabeRuth\_13, Bagrid\_29, Bartholomew\_14, Beem\_31, BigNuz\_13, Bobby\_32, Bogie\_13, Bombitas\_28, Bosection6\_13, Brusacorram\_14, Bunnies\_14, Butters\_13, CactusJack\_14, Camster\_14, Carcharodon\_13, Charlie\_13, Chewbacca\_13, Constella\_26, Courthouse\_29, Dallas\_31, DmpstrDiver\_30, Donovan\_14, Dove\_30, Duke13\_28, Duplicity\_13, Dynamo\_14, Ejimix\_32, EricMillard\_31, FirstPlacePfu\_14, Fishburne\_14, Fulbright\_13, Gex\_13, Glaske\_14, Gonephishing\_27, GreaseLightnin\_14, HUHilltop\_14, Halley\_31, Hannaconda\_26, HokkenD\_26, Hughesyang\_30, Jamie19\_13, Jebeks\_14, Journey\_14, JuicyJay\_32, Jung\_14, Juniormint\_14, Kalah2\_32, Kari\_14, KashFlow\_23, Kevin1\_13, KilKor\_14, Klein\_31, Ksquared\_14, Langerak\_14, LittleE\_29, Lucky2013\_29, Magsby\_13, Majeke\_14, Malithi\_14, Mangethe\_14, Megidido\_14, Melville\_13, MiaZeal\_29, MichelleMyBell\_13, Minerva\_31, Nazo\_13, Necropolis\_14, Nenae\_13, NihilNomen\_30, Odette\_31, Omega\_31, Optimus\_29, Panchino\_13, Parmesanjohn\_13, Phalm\_14,

PhancyPhin\_13, Phayonce\_13, Phegasus\_14, Philonius\_13, Phineas\_14, Phloss\_13, Phoebus\_31, Phrann\_13, Pipsqueaks\_13, Polkaroo\_14, Porcelain\_28, Pound\_31, Purgamenstris\_13, Purky\_13, Pygmy\_13, Raymond7\_13, Rebel\_13, Redi\_13, Redno2\_30, Rubeelu\_13, Schatzie\_29, Schnauzer\_13, Scitech\_13, Shipwreck\_13, ShrimpFriedEgg\_13, Shweta\_13, Silvafighter\_13, Silvy\_13, SkinnyPete\_13, Smurph\_13, Snekmaggon\_13, Sonah\_14, SpongeBob\_13, Squint\_28, StevieRay\_14, StressBall\_14, Superphikiman\_29, Tapioca\_13, Techage\_14, Thespis\_14, Thibault\_27, ThreeRngTarjay\_30, ThulaThula\_13, Tortellini\_13, Venti\_14, Vidya\_14, Wanda\_32, Willsammy\_14, Xavia\_14, Xeno\_13, Xerxes\_13, Yeet\_29, Zelink\_32, Zilizebeth\_14,

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

- 

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

- 244\_19, ABCat\_18, Adnama\_20, Amao\_19, AmericanBeauty\_20, Argent26\_20, Asriel\_18, BaboJay\_18, BadStone\_18, Balomoji\_18, Barbarian\_18, Bask21\_18, Bench\_20, BigBubba\_18, BilboSwaggins\_19, Bruin\_18, Buck\_18, BugsBunny\_16, Cactus\_20, ChosenOne\_17, ChotaBhai\_18, Cjw1\_18, Command613\_20, Contagion\_18, Cookies\_19, CrystalP\_19, Czystczon1\_19, Daikon\_17, DoctorDiddles\_19, DrDrey\_19, Dumbo\_18, Dusk\_18, Easy2Say\_19, Elite2014\_17, Elph10\_19, Emmina\_18, Eureka\_19, Filch\_19, FireRed\_18, Flypotenuse\_17, Gage\_20, Gator\_17, Gemini\_20, Glexan\_17, Goku\_19, GoldenSpark\_20, Goldilocks\_20, GooberAzure\_20, HanKaySha\_19, Harella\_17, Henry\_19, Highbury\_19, Holt\_20, Hoonter\_20, Hopey\_19, HufflyPuff\_17, IHOP\_18, Icee\_18, Inca\_18, JeTaimé\_20, Kanye\_20, Kimchi\_20, Kostya\_19, Lilac\_20, Lilizi\_20, Lilpickle\_17, MISSy\_18, MPhalcon\_18, MadamMonkfish\_18, Manda\_19, Marshmallow\_19, Maxxinista\_19, Mindy\_19, Miniwave\_19, Misfit\_18, Moldemort\_19, Mosby\_18, Murica\_17, Murphy\_18, Myrale\_19, Nala\_18, NelitzaMV\_19, Nimrod\_18, NoSleep\_19, OrionPax\_19, Palpatine\_18, Paperbeatsrock\_20, Pat3\_18, Petra64142\_19, Phaja\_18, Pharsalus\_19, PhatBacter\_18, Phaux\_17, Phrux\_18, Policronamos\_18, Porky\_17, Pumpkin\_19, Quallification\_20, Rakim\_20, Rimmer\_18, RiverMonster\_18, Saints25\_19, Sassay\_18, ShamWow\_19, ShereKhan\_20, Simpliphy\_19, SirDuracell\_18, SophKB\_19, Sotrice96\_19, Stank\_20, Stark\_19, StellaBean\_19, StolenFromERC\_20, TBrady12\_20, Tarkin\_20, TeardropMSU\_18, Teaspoon\_18, Terminus\_18, Thresher\_19, Tomaszewski\_18, Toto\_19, Traaww1\_17, Tuco\_19, Ukulele\_18, Wiggin\_20, Willez\_18, Xandras\_20, YassJohnny\_19, Youngblood\_18, xkcd\_19,

### Summary by start number:

Start 9:

- Found in 135 of 265 ( 50.9% ) of genes in pham
- Manual Annotations of this start: 122 of 241
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie\_13 (N), Andies\_13 (N), Arib1\_14 (P1), Ariel\_29 (J), Atcoo\_14 (P1), BAKA\_28 (J), BabeRuth\_13 (N), Bagrid\_29 (J), Bartholomew\_14 (P1), Beem\_31 (J), BigNuz\_13 (P4), Bobby\_32 (J), Bogie\_13 (P1), Bombitas\_28 (J), Bosection6\_13 (N), Brusacoram\_14 (P1), Bunnies\_14 (P1), Butters\_13 (N), CactusJack\_14 (P1), Camster\_14 (P1), Carcharodon\_13 (N), Charlie\_13 (N), Chewbacca\_13 (N), Constella\_26 (J), Courthouse\_29 (J), Dallas\_31 (J), DmpstrDiver\_30 (J), Donovan\_14 (P1), Dove\_30 (J), Duke13\_28 (J), Duplicity\_13 (N), Dynamo\_14 (P1), Ejimix\_32 (J), EricMillard\_31 (J), FirstPlacePfu\_14 (P1),

Fishburne\_14 (P1), Fulbright\_13 (N), Gex\_13 (N), Glaske\_14 (P1), Gonephishing\_27 (J), GreaseLightnin\_14 (P1), HUHilltop\_14 (P1), Halley\_31 (J), Hannaconda\_26 (J), HokkenD\_26 (J), Hughesyang\_30 (J), Jamie19\_13 (N), Jebeks\_14 (P1), Journey\_14 (N), JuicyJay\_32 (J), Jung\_14 (P1), Juniormint\_14 (P1), Kalah2\_32 (J), Kari\_14 (P1), KashFlow\_23 (J), Kevin1\_13 (N), KilKor\_14 (P1), Klein\_31 (J), Ksquared\_14 (P1), Langerak\_14 (P1), LittleE\_29 (J), Lucky2013\_29 (J), Magsby\_13 (N), Majeke\_14 (P1), Malithi\_14 (P1), Mangethe\_14 (P1), Megiddo\_14 (P1), Melville\_13 (N), MiaZeal\_29 (J), MichelleMyBell\_13 (N), Minerva\_31 (J), Nazo\_13 (P4), Necropolis\_14 (P1), Nenae\_13 (N), NihilNomen\_30 (J), Odette\_31 (J), Omega\_31 (J), Optimus\_29 (J), Panchino\_13 (N), Parmesanjohn\_13 (N), Phalm\_14 (P1), PhancyPhin\_13 (N), Phayonce\_13 (P5), Phegasus\_14 (P1), Philonius\_13 (N), Phineas\_14 (P1), Phloss\_13 (N), Phoebus\_31 (J), Phrann\_13 (N), Pipsqueaks\_13 (N), Polkaroo\_14 (P1), Porcelain\_28 (J), Pound\_31 (J), Purgamenstris\_13 (N), Purky\_13 (P6), Pygmy\_13 (P1), Raymond7\_13 (N), Rebel\_13 (N), Redi\_13 (N), Redno2\_30 (J), Rubeelu\_13 (N), Schatzie\_29 (J), Schnauzer\_13 (N), Scitech\_13 (N), Shipwreck\_13 (P1), ShrimpFriedEgg\_13 (N), Shweta\_13 (N), Silvafighter\_13 (N), Silvy\_13 (N), SkinnyPete\_13 (N), Smurph\_13 (N), Snekmaggon\_13 (N), Sonah\_14 (P1), SpongeBob\_13 (N), Squint\_28 (J), StevieRay\_14 (P1), StressBall\_14 (P1), Superphikiman\_29 (J), Tapioca\_13 (N), Techage\_14 (P1), Thespis\_14 (P1), Thibault\_27 (J), ThreeRngTarjay\_30 (J), ThulaThula\_13 (P5), Tortellini\_13 (P2), Venti\_14 (P1), Vidya\_14 (P1), Wanda\_32 (J), Willsammy\_14 (P1), Xavia\_14 (P3), Xeno\_13 (N), Xerxes\_13 (N), Yeet\_29 (J), Zelink\_32 (J), Zilizebeth\_14 (P1),

Start 10:

- Found in 130 of 265 ( 49.1% ) of genes in pham
- Manual Annotations of this start: 119 of 241
- Called 96.9% of time when present
- Phage (with cluster) where this start called: 244\_19 (E), ABCat\_18 (E), Adnama\_20 (E), AmericanBeauty\_20 (E), Argent26\_20 (E), Asriel\_18 (E), BaboJay\_18 (E), BadStone\_18 (E), Balomoji\_18 (E), Barbarian\_18 (E), Bask21\_18 (E), Bench\_20 (E), BigBubba\_18 (E), Bruin\_18 (E), Buck\_18 (E), BugsBunny\_16 (E), Cactus\_20 (E), ChosenOne\_17 (E), ChotaBhai\_18 (E), Cjw1\_18 (E), Command613\_20 (E), Contagion\_18 (E), Cookies\_19 (E), CrystalP\_19 (E), Czyszczonek\_19 (E), Daikon\_17 (E), DoctorDiddles\_19 (E), DrDrey\_19 (E), Dumbo\_18 (E), Dusk\_18 (E), Easy2Say\_19 (E), Elite2014\_17 (E), Elph10\_19 (E), Emmina\_18 (E), Eureka\_19 (E), Filch\_19 (E), FireRed\_18 (E), Flypotenuse\_17 (E), Gage\_20 (E), Gator\_17 (E), Gemini\_20 (E), Glexan\_17 (E), Goku\_19 (E), GoldenSpark\_20 (E), Goldilocks\_20 (E), GooberAzure\_20 (E), HanKaySha\_19 (E), Harella\_17 (E), Henry\_19 (E), Highbury\_19 (E), Holt\_20 (E), Hoonter\_20 (E), Hopey\_19 (E), HuffyPuff\_17 (E), IHOP\_18 (E), Icee\_18 (E), Inca\_18 (E), JeTaimie\_20 (E), Kanye\_20 (E), Kimchi\_20 (E), Kostya\_19 (E), Lilac\_20 (E), Lilizi\_20 (E), Lilipickle\_17 (E), MISSy\_18 (E), MPhalcon\_18 (E), MadamMonkfish\_18 (E), Manda\_19 (E), Marshmallow\_19 (E), Maxxinista\_19 (E), Mindy\_19 (E), Miniwave\_19 (E), Misfit\_18 (E), Moldemort\_19 (E), Mosby\_18 (E), Murica\_17 (E), Murphy\_18 (E), Myrale\_19 (E), Nala\_18 (E), NelitzaMV\_19 (E), Nimrod\_18 (E), NoSleep\_19 (E), OrionPax\_19 (E), Paperbeatsrock\_20 (E), Pat3\_18 (E), Petra64142\_19 (E), Phaja\_18 (E), Pharsalus\_19 (E), PhatBacter\_18 (E), Phaux\_17 (E), Phrux\_18 (E), Policronamos\_18 (E), Porky\_17 (E), Pumpkin\_19 (E), Quallification\_20 (E), Rakim\_20 (E), Rimmer\_18 (E), RiverMonster\_18 (E), Saints25\_19 (E), Sassay\_18 (E), ShamWow\_19 (E), ShereKhan\_20 (E), Simpliphy\_19 (E), SirDuracell\_18 (E), SophKB\_19 (E), Sotrice96\_19 (E), Stank\_20 (E), Stark\_19 (E), StolenFromERC\_20 (E), TBrady12\_20 (E), Tarkin\_20 (E), TeardropMSU\_18 (E), Teaspoon\_18 (E), Terminus\_18 (E), Thresher\_19 (E), Tomaszewski\_18 (E), Toto\_19 (E), Traaww1\_17 (E), Tuco\_19 (E),

Ukulele\_18 (E), Wiggin\_20 (E), Willez\_18 (E), Xandras\_20 (E), YassJohnny\_19 (E), Youngblood\_18 (E), xkcd\_19 (E),

Start 11:

- Found in 179 of 265 ( 67.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.2% of time when present
- Phage (with cluster) where this start called: Amao\_19 (E), BilboSwaggins\_19 (E), Palpatine\_18 (E), StellaBean\_19 (E),

### **Summary by clusters:**

There are 9 clusters represented in this pham: P2, P3, P1, E, P4, P5, J, N, P6,

Info for manual annotations of cluster E:

- Start number 10 was manually annotated 119 times for cluster E.

Info for manual annotations of cluster J:

- Start number 9 was manually annotated 39 times for cluster J.

Info for manual annotations of cluster N:

- Start number 9 was manually annotated 38 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 9 was manually annotated 38 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 9 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 9 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 9 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 9 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 9 was manually annotated 1 time for cluster P6.

### **Gene Information:**

Gene: 244\_19 Start: 10603, Stop: 11577, Start Num: 10

Candidate Starts for 244\_19:

(Start: 10 @10603 has 119 MA's), (11, 10612), (12, 10672), (20, 10825), (30, 10921), (32, 10996), (34, 11041), (38, 11083), (40, 11101), (55, 11272), (60, 11302), (64, 11326), (65, 11335), (74, 11434), (77, 11455), (81, 11506),

Gene: ABCat\_18 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for ABCat\_18:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (58, 12068), (62, 12089), (65, 12110), (69, 12155), (74, 12209), (78, 12242), (79, 12254), (81, 12281),

Gene: Adnama\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Adnama\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Aggie\_13 Start: 7878, Stop: 8936, Start Num: 9

Candidate Starts for Aggie\_13:

(6, 7815), (Start: 9 @7878 has 122 MA's), (12, 7968), (16, 8034), (21, 8163), (30, 8256), (36, 8391), (42, 8448), (44, 8460), (50, 8571), (51, 8583), (52, 8589), (57, 8637), (66, 8700), (70, 8757), (76, 8808), (77, 8811), (84, 8901),

Gene: Amao\_19 Start: 10592, Stop: 11554, Start Num: 11

Candidate Starts for Amao\_19:

(Start: 10 @10583 has 119 MA's), (11, 10592), (12, 10652), (20, 10805), (30, 10901), (32, 10976), (34, 11021), (38, 11063), (40, 11081), (55, 11252), (60, 11282), (64, 11306), (65, 11315), (74, 11414), (77, 11435), (81, 11486),

Gene: AmericanBeauty\_20 Start: 10832, Stop: 11806, Start Num: 10

Candidate Starts for AmericanBeauty\_20:

(Start: 10 @10832 has 119 MA's), (11, 10841), (12, 10901), (20, 11054), (30, 11150), (32, 11225), (34, 11270), (38, 11312), (40, 11330), (55, 11501), (60, 11531), (64, 11555), (65, 11564), (74, 11663), (77, 11684),

Gene: Andies\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Andies\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Argent26\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Argent26\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Arib1\_14 Start: 8818, Stop: 9816, Start Num: 9

Candidate Starts for Arib1\_14:

(7, 8779), (Start: 9 @8818 has 122 MA's), (11, 8842), (13, 8908), (14, 8926), (17, 8962), (23, 9097), (26, 9133), (33, 9283), (39, 9337), (41, 9349), (46, 9418), (53, 9493), (56, 9514), (75, 9676), (83, 9769), (86, 9793),

Gene: Ariel\_29 Start: 15912, Stop: 16916, Start Num: 9

Candidate Starts for Ariel\_29:

(Start: 9 @15912 has 122 MA's), (15, 16038), (22, 16188), (24, 16218), (26, 16242), (43, 16467), (45, 16521), (63, 16662), (69, 16719), (73, 16773),

Gene: Asriel\_18 Start: 10250, Stop: 11221, Start Num: 10

Candidate Starts for Asriel\_18:

(Start: 10 @10250 has 119 MA's), (11, 10259), (12, 10319), (20, 10472), (30, 10568), (32, 10643), (34, 10688), (38, 10730), (40, 10748), (55, 10919), (60, 10949), (64, 10973), (65, 10982), (74, 11081), (77, 11102), (81, 11153),

Gene: Atcoo\_14 Start: 8838, Stop: 9836, Start Num: 9

Candidate Starts for Atcoo\_14:

(7, 8799), (Start: 9 @8838 has 122 MA's), (11, 8862), (13, 8928), (14, 8946), (23, 9117), (26, 9153), (33, 9303), (39, 9357), (41, 9369), (46, 9438), (53, 9513), (56, 9534), (75, 9696), (83, 9789), (86, 9813),

Gene: BAKA\_28 Start: 17998, Stop: 19002, Start Num: 9

Candidate Starts for BAKA\_28:

(Start: 9 @17998 has 122 MA's), (15, 18124), (22, 18274), (24, 18304), (26, 18328), (36, 18499), (43, 18553), (45, 18607), (48, 18628), (49, 18643), (61, 18736), (62, 18739), (63, 18748), (69, 18805), (77, 18877), (80, 18910), (85, 18970),

Gene: BabeRuth\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for BabeRuth\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: BaboJay\_18 Start: 10914, Stop: 11885, Start Num: 10

Candidate Starts for BaboJay\_18:

(Start: 10 @10914 has 119 MA's), (11, 10923), (12, 10983), (20, 11136), (30, 11232), (32, 11307), (34, 11352), (38, 11394), (40, 11412), (55, 11583), (60, 11613), (64, 11637), (65, 11646), (67, 11661), (74, 11745), (81, 11817),

Gene: BadStone\_18 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for BadStone\_18:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (58, 12068), (62, 12089), (65, 12110), (69, 12155), (74, 12209), (78, 12242), (79, 12254), (81, 12281),

Gene: Bagrid\_29 Start: 17787, Stop: 18791, Start Num: 9

Candidate Starts for Bagrid\_29:

(Start: 9 @17787 has 122 MA's), (15, 17913), (22, 18063), (24, 18093), (26, 18117), (36, 18288), (43, 18342), (45, 18396), (48, 18417), (49, 18432), (61, 18525), (62, 18528), (63, 18537), (69, 18594), (77, 18666), (80, 18699), (85, 18759),

Gene: Balomoji\_18 Start: 11112, Stop: 12083, Start Num: 10

Candidate Starts for Balomoji\_18:

(Start: 10 @11112 has 119 MA's), (11, 11121), (12, 11181), (20, 11334), (30, 11430), (32, 11505), (34, 11550), (38, 11592), (40, 11610), (55, 11781), (58, 11802), (62, 11823), (65, 11844), (69, 11889), (74, 11943), (78, 11976), (79, 11988), (81, 12015),

Gene: Barbarian\_18 Start: 10250, Stop: 11221, Start Num: 10

Candidate Starts for Barbarian\_18:

(Start: 10 @10250 has 119 MA's), (11, 10259), (12, 10319), (20, 10472), (30, 10568), (32, 10643), (34, 10688), (38, 10730), (40, 10748), (55, 10919), (60, 10949), (64, 10973), (65, 10982), (74, 11081), (77, 11102), (81, 11153),

Gene: Bartholomew\_14 Start: 8834, Stop: 9832, Start Num: 9



Candidate Starts for Bartholomew\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: Bask21\_18 Start: 10045, Stop: 11016, Start Num: 10

Candidate Starts for Bask21\_18:

(Start: 10 @10045 has 119 MA's), (11, 10054), (12, 10114), (20, 10267), (30, 10363), (32, 10438), (34, 10483), (38, 10525), (40, 10543), (55, 10714), (60, 10744), (64, 10768), (65, 10777), (74, 10876), (77, 10897), (81, 10948),

Gene: Beem\_31 Start: 18353, Stop: 19357, Start Num: 9

Candidate Starts for Beem\_31:

(Start: 9 @18353 has 122 MA's), (15, 18479), (22, 18629), (24, 18659), (26, 18683), (36, 18854), (43, 18908), (45, 18962), (48, 18983), (49, 18998), (61, 19091), (62, 19094), (63, 19103), (69, 19160), (77, 19232), (80, 19265), (85, 19325),

Gene: Bench\_20 Start: 10708, Stop: 11682, Start Num: 10

Candidate Starts for Bench\_20:

(Start: 10 @10708 has 119 MA's), (11, 10717), (12, 10777), (20, 10930), (30, 11026), (32, 11101), (34, 11146), (38, 11188), (40, 11206), (55, 11377), (60, 11407), (64, 11431), (65, 11440), (74, 11539), (77, 11560), (81, 11611),

Gene: BigBubba\_18 Start: 10091, Stop: 11065, Start Num: 10

Candidate Starts for BigBubba\_18:

(Start: 10 @10091 has 119 MA's), (11, 10100), (12, 10160), (20, 10313), (30, 10409), (32, 10484), (34, 10529), (38, 10571), (40, 10589), (55, 10760), (60, 10790), (64, 10814), (65, 10823), (74, 10922), (77, 10943), (81, 10994),

Gene: BigNuz\_13 Start: 8552, Stop: 9550, Start Num: 9

Candidate Starts for BigNuz\_13:

(8, 8513), (Start: 9 @8552 has 122 MA's), (11, 8576), (12, 8636), (14, 8660), (23, 8831), (26, 8867), (28, 8879), (29, 8900), (31, 8954), (35, 9029), (39, 9071), (41, 9083), (56, 9248), (59, 9266), (64, 9293), (71, 9374), (77, 9425), (81, 9476), (83, 9503),

Gene: BilboSwaggins\_19 Start: 11388, Stop: 12350, Start Num: 11

Candidate Starts for BilboSwaggins\_19:

(Start: 10 @11379 has 119 MA's), (11, 11388), (12, 11448), (20, 11601), (30, 11697), (32, 11772), (34, 11817), (38, 11859), (40, 11877), (55, 12048), (58, 12069), (62, 12090), (65, 12111), (69, 12156), (74, 12210), (78, 12243), (79, 12255), (81, 12282),

Gene: Bobby\_32 Start: 18306, Stop: 19310, Start Num: 9

Candidate Starts for Bobby\_32:

(Start: 9 @18306 has 122 MA's), (15, 18432), (22, 18582), (24, 18612), (26, 18636), (36, 18807), (43, 18861), (45, 18915), (48, 18936), (49, 18951), (61, 19044), (62, 19047), (63, 19056), (69, 19113), (77, 19185), (80, 19218), (85, 19278),

Gene: Bogie\_13 Start: 8552, Stop: 9550, Start Num: 9

Candidate Starts for Bogie\_13:

(2, 8351), (4, 8402), (7, 8513), (Start: 9 @8552 has 122 MA's), (11, 8576), (13, 8642), (14, 8660), (17, 8696), (23, 8831), (26, 8867), (33, 9017), (39, 9071), (41, 9083), (46, 9152), (53, 9227), (56, 9248), (75, 9410), (83, 9503), (86, 9527),

Gene: Bombitas\_28 Start: 17663, Stop: 18667, Start Num: 9

Candidate Starts for Bombitas\_28:

(Start: 9 @17663 has 122 MA's), (15, 17789), (22, 17939), (24, 17969), (26, 17993), (36, 18164), (43, 18218), (45, 18272), (48, 18293), (49, 18308), (61, 18401), (62, 18404), (63, 18413), (69, 18470), (77, 18542), (80, 18575), (85, 18635),

Gene: Bosection6\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Bosection6\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Bruin\_18 Start: 10886, Stop: 11857, Start Num: 10

Candidate Starts for Bruin\_18:

(Start: 10 @10886 has 119 MA's), (11, 10895), (12, 10955), (20, 11108), (30, 11204), (32, 11279), (34, 11324), (38, 11366), (40, 11384), (55, 11555), (60, 11585), (64, 11609), (65, 11618), (74, 11717), (77, 11738), (81, 11789),

Gene: Brusacoram\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for Brusacoram\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (23, 9116), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (53, 9512), (56, 9533), (75, 9695), (83, 9788), (86, 9812),

Gene: Buck\_18 Start: 11335, Stop: 12306, Start Num: 10

Candidate Starts for Buck\_18:

(Start: 10 @11335 has 119 MA's), (11, 11344), (12, 11404), (20, 11557), (30, 11653), (32, 11728), (34, 11773), (38, 11815), (40, 11833), (55, 12004), (60, 12034), (64, 12058), (65, 12067), (74, 12166), (77, 12187), (81, 12238),

Gene: BugsBunny\_16 Start: 10452, Stop: 11423, Start Num: 10

Candidate Starts for BugsBunny\_16:

(Start: 10 @10452 has 119 MA's), (11, 10461), (12, 10521), (20, 10674), (30, 10770), (32, 10845), (34, 10890), (38, 10932), (40, 10950), (55, 11121), (60, 11151), (64, 11175), (65, 11184), (74, 11283), (77, 11304), (81, 11355),

Gene: Bunnies\_14 Start: 8850, Stop: 9848, Start Num: 9

Candidate Starts for Bunnies\_14:

(7, 8811), (Start: 9 @8850 has 122 MA's), (11, 8874), (13, 8940), (14, 8958), (17, 8994), (23, 9129), (26, 9165), (33, 9315), (39, 9369), (41, 9381), (46, 9450), (53, 9525), (56, 9546), (75, 9708), (83, 9801), (86, 9825),

Gene: Butters\_13 Start: 7898, Stop: 8956, Start Num: 9

Candidate Starts for Butters\_13:

(6, 7835), (Start: 9 @7898 has 122 MA's), (16, 8054), (30, 8276), (36, 8411), (42, 8468), (44, 8480), (51, 8603), (52, 8609), (54, 8636), (57, 8657), (66, 8720), (70, 8777), (76, 8828), (77, 8831), (81, 8882), (82, 8888), (84, 8921), (85, 8924),

Gene: Cactus\_20 Start: 10591, Stop: 11562, Start Num: 10

Candidate Starts for Cactus\_20:

(Start: 10 @10591 has 119 MA's), (11, 10600), (12, 10660), (20, 10813), (30, 10909), (32, 10984), (34, 11029), (38, 11071), (40, 11089), (55, 11260), (60, 11290), (64, 11314), (65, 11323), (74, 11422), (77, 11443), (81, 11494),

Gene: CactusJack\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for CactusJack\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (17, 8981), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (47, 9452), (56, 9533), (75, 9695), (83, 9788), (86, 9812),

Gene: Camster\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Camster\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: Carcharodon\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Carcharodon\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Charlie\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Charlie\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Chewbacca\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Chewbacca\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: ChosenOne\_17 Start: 10055, Stop: 11029, Start Num: 10

Candidate Starts for ChosenOne\_17:

(Start: 10 @10055 has 119 MA's), (11, 10064), (12, 10124), (20, 10277), (30, 10373), (32, 10448), (34, 10493), (38, 10535), (40, 10553), (55, 10724), (60, 10754), (64, 10778), (65, 10787), (74, 10886), (77, 10907), (81, 10958),

Gene: ChotaBhai\_18 Start: 10091, Stop: 11065, Start Num: 10

Candidate Starts for ChotaBhai\_18:

(Start: 10 @10091 has 119 MA's), (11, 10100), (12, 10160), (20, 10313), (30, 10409), (32, 10484), (34, 10529), (38, 10571), (40, 10589), (55, 10760), (60, 10790), (64, 10814), (65, 10823), (74, 10922), (77, 10943), (81, 10994),

Gene: Cjw1\_18 Start: 11605, Stop: 12579, Start Num: 10

Candidate Starts for Cjw1\_18:

(Start: 10 @11605 has 119 MA's), (11, 11614), (12, 11674), (20, 11827), (30, 11923), (32, 11998), (34, 12043), (38, 12085), (40, 12103), (55, 12274), (60, 12304), (64, 12328), (65, 12337), (74, 12436), (77, 12457), (81, 12508),

Gene: Command613\_20 Start: 11647, Stop: 12618, Start Num: 10

Candidate Starts for Command613\_20:

(Start: 10 @11647 has 119 MA's), (11, 11656), (12, 11716), (20, 11869), (30, 11965), (32, 12040), (34, 12085), (38, 12127), (40, 12145), (55, 12316), (58, 12337), (62, 12358), (65, 12379), (69, 12424), (74,

12478), (78, 12511), (79, 12523), (81, 12550),

Gene: Constella\_26 Start: 17176, Stop: 18180, Start Num: 9

Candidate Starts for Constella\_26:

(Start: 9 @17176 has 122 MA's), (15, 17302), (22, 17452), (24, 17482), (26, 17506), (36, 17677), (43, 17731), (45, 17785), (48, 17806), (49, 17821), (61, 17914), (62, 17917), (63, 17926), (69, 17983), (77, 18055), (80, 18088), (85, 18148),

Gene: Contagion\_18 Start: 10886, Stop: 11857, Start Num: 10

Candidate Starts for Contagion\_18:

(Start: 10 @10886 has 119 MA's), (11, 10895), (12, 10955), (20, 11108), (30, 11204), (32, 11279), (34, 11324), (38, 11366), (40, 11384), (55, 11555), (60, 11585), (64, 11609), (65, 11618), (74, 11717), (77, 11738), (81, 11789),

Gene: Cookies\_19 Start: 11251, Stop: 12222, Start Num: 10

Candidate Starts for Cookies\_19:

(Start: 10 @11251 has 119 MA's), (11, 11260), (12, 11320), (20, 11473), (30, 11569), (32, 11644), (34, 11689), (38, 11731), (40, 11749), (55, 11920), (60, 11950), (64, 11974), (65, 11983), (74, 12082), (77, 12103), (81, 12154),

Gene: Courthouse\_29 Start: 16315, Stop: 17319, Start Num: 9

Candidate Starts for Courthouse\_29:

(Start: 9 @16315 has 122 MA's), (15, 16441), (22, 16591), (24, 16621), (26, 16645), (43, 16870), (45, 16924), (63, 17065), (69, 17122), (73, 17176),

Gene: CrystalP\_19 Start: 11379, Stop: 12350, Start Num: 10

Candidate Starts for CrystalP\_19:

(Start: 10 @11379 has 119 MA's), (11, 11388), (12, 11448), (20, 11601), (30, 11697), (32, 11772), (34, 11817), (38, 11859), (40, 11877), (55, 12048), (58, 12069), (62, 12090), (65, 12111), (69, 12156), (74, 12210), (78, 12243), (79, 12255), (81, 12282),

Gene: Czyszczone1\_19 Start: 10590, Stop: 11564, Start Num: 10

Candidate Starts for Czyszczone1\_19:

(Start: 10 @10590 has 119 MA's), (11, 10599), (12, 10659), (20, 10812), (30, 10908), (32, 10983), (34, 11028), (38, 11070), (40, 11088), (55, 11259), (60, 11289), (64, 11313), (65, 11322), (74, 11421), (77, 11442), (81, 11493),

Gene: Daikon\_17 Start: 11113, Stop: 12084, Start Num: 10

Candidate Starts for Daikon\_17:

(Start: 10 @11113 has 119 MA's), (11, 11122), (12, 11182), (20, 11335), (30, 11431), (32, 11506), (34, 11551), (38, 11593), (40, 11611), (55, 11782), (58, 11803), (62, 11824), (65, 11845), (69, 11890), (74, 11944), (78, 11977), (79, 11989), (81, 12016),

Gene: Dallas\_31 Start: 17893, Stop: 18897, Start Num: 9

Candidate Starts for Dallas\_31:

(Start: 9 @17893 has 122 MA's), (15, 18019), (22, 18169), (24, 18199), (26, 18223), (36, 18394), (43, 18448), (45, 18502), (48, 18523), (49, 18538), (61, 18631), (62, 18634), (63, 18643), (69, 18700), (77, 18772), (80, 18805), (85, 18865),

Gene: DmpstrDiver\_30 Start: 18529, Stop: 19533, Start Num: 9

Candidate Starts for DmpstrDiver\_30:

(Start: 9 @18529 has 122 MA's), (15, 18655), (22, 18805), (24, 18835), (26, 18859), (36, 19030), (43, 19084), (45, 19138), (48, 19159), (49, 19174), (61, 19267), (62, 19270), (63, 19279), (69, 19336), (77,

19408), (80, 19441), (85, 19501),

Gene: DoctorDiddles\_19 Start: 10544, Stop: 11515, Start Num: 10

Candidate Starts for DoctorDiddles\_19:

(Start: 10 @10544 has 119 MA's), (11, 10553), (12, 10613), (20, 10766), (30, 10862), (32, 10937), (34, 10982), (38, 11024), (40, 11042), (55, 11213), (60, 11243), (64, 11267), (65, 11276), (74, 11375), (77, 11396), (81, 11447),

Gene: Donovan\_14 Start: 8819, Stop: 9817, Start Num: 9

Candidate Starts for Donovan\_14:

(7, 8780), (Start: 9 @8819 has 122 MA's), (11, 8843), (13, 8909), (14, 8927), (17, 8963), (23, 9098), (26, 9134), (33, 9284), (39, 9338), (41, 9350), (46, 9419), (53, 9494), (56, 9515), (75, 9677), (83, 9770), (86, 9794),

Gene: Dove\_30 Start: 17662, Stop: 18666, Start Num: 9

Candidate Starts for Dove\_30:

(Start: 9 @17662 has 122 MA's), (15, 17788), (22, 17938), (24, 17968), (26, 17992), (36, 18163), (43, 18217), (45, 18271), (48, 18292), (49, 18307), (61, 18400), (62, 18403), (63, 18412), (69, 18469), (77, 18541), (80, 18574), (85, 18634),

Gene: DrDrey\_19 Start: 11331, Stop: 12305, Start Num: 10

Candidate Starts for DrDrey\_19:

(Start: 10 @11331 has 119 MA's), (11, 11340), (12, 11400), (20, 11553), (30, 11649), (32, 11724), (34, 11769), (38, 11811), (40, 11829), (55, 12000), (60, 12030), (64, 12054), (65, 12063), (74, 12162), (77, 12183), (81, 12234),

Gene: Duke13\_28 Start: 17927, Stop: 18931, Start Num: 9

Candidate Starts for Duke13\_28:

(Start: 9 @17927 has 122 MA's), (15, 18053), (22, 18203), (24, 18233), (26, 18257), (36, 18428), (43, 18482), (45, 18536), (48, 18557), (49, 18572), (61, 18665), (62, 18668), (63, 18677), (69, 18734), (77, 18806), (80, 18839), (85, 18899),

Gene: Dumbo\_18 Start: 10312, Stop: 11286, Start Num: 10

Candidate Starts for Dumbo\_18:

(Start: 10 @10312 has 119 MA's), (11, 10321), (12, 10381), (20, 10534), (30, 10630), (32, 10705), (34, 10750), (38, 10792), (40, 10810), (55, 10981), (60, 11011), (64, 11035), (65, 11044), (74, 11143), (77, 11164), (81, 11215),

Gene: Duplicity\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Duplicity\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Dusk\_18 Start: 11038, Stop: 12009, Start Num: 10

Candidate Starts for Dusk\_18:

(Start: 10 @11038 has 119 MA's), (11, 11047), (12, 11107), (20, 11260), (30, 11356), (32, 11431), (34, 11476), (38, 11518), (40, 11536), (55, 11707), (58, 11728), (62, 11749), (65, 11770), (69, 11815), (74, 11869), (78, 11902), (79, 11914), (81, 11941),

Gene: Dynamo\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Dynamo\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: Easy2Say\_19 Start: 11578, Stop: 12552, Start Num: 10

Candidate Starts for Easy2Say\_19:

(Start: 10 @11578 has 119 MA's), (11, 11587), (12, 11647), (20, 11800), (30, 11896), (32, 11971), (34, 12016), (38, 12058), (40, 12076), (55, 12247), (60, 12277), (64, 12301), (65, 12310), (74, 12409), (77, 12430), (81, 12481),

Gene: Ejimix\_32 Start: 19103, Stop: 20107, Start Num: 9

Candidate Starts for Ejimix\_32:

(Start: 9 @19103 has 122 MA's), (15, 19229), (22, 19379), (24, 19409), (26, 19433), (36, 19604), (43, 19658), (45, 19712), (48, 19733), (49, 19748), (61, 19841), (62, 19844), (63, 19853), (69, 19910), (77, 19982), (80, 20015), (85, 20075),

Gene: Elite2014\_17 Start: 10055, Stop: 11029, Start Num: 10

Candidate Starts for Elite2014\_17:

(Start: 10 @10055 has 119 MA's), (11, 10064), (12, 10124), (20, 10277), (30, 10373), (32, 10448), (34, 10493), (38, 10535), (40, 10553), (55, 10724), (60, 10754), (64, 10778), (65, 10787), (74, 10886), (77, 10907), (81, 10958),

Gene: Elph10\_19 Start: 10315, Stop: 11289, Start Num: 10

Candidate Starts for Elph10\_19:

(Start: 10 @10315 has 119 MA's), (11, 10324), (12, 10384), (20, 10537), (30, 10633), (32, 10708), (34, 10753), (38, 10795), (40, 10813), (55, 10984), (60, 11014), (64, 11038), (65, 11047), (74, 11146), (77, 11167), (81, 11218),

Gene: Emmina\_18 Start: 10160, Stop: 11134, Start Num: 10

Candidate Starts for Emmina\_18:

(Start: 10 @10160 has 119 MA's), (11, 10169), (12, 10229), (20, 10382), (30, 10478), (32, 10553), (34, 10598), (38, 10640), (40, 10658), (55, 10829), (60, 10859), (64, 10883), (65, 10892), (74, 10991), (77, 11012), (81, 11063),

Gene: EricMillard\_31 Start: 18639, Stop: 19643, Start Num: 9

Candidate Starts for EricMillard\_31:

(Start: 9 @18639 has 122 MA's), (15, 18765), (22, 18915), (24, 18945), (26, 18969), (36, 19140), (43, 19194), (45, 19248), (48, 19269), (49, 19284), (61, 19377), (62, 19380), (63, 19389), (69, 19446), (77, 19518), (80, 19551), (85, 19611),

Gene: Eureka\_19 Start: 11358, Stop: 12329, Start Num: 10

Candidate Starts for Eureka\_19:

(Start: 10 @11358 has 119 MA's), (11, 11367), (12, 11427), (20, 11580), (30, 11676), (32, 11751), (34, 11796), (38, 11838), (40, 11856), (55, 12027), (60, 12057), (64, 12081), (65, 12090), (67, 12105), (74, 12189), (81, 12261),

Gene: Filch\_19 Start: 10600, Stop: 11574, Start Num: 10

Candidate Starts for Filch\_19:

(Start: 10 @10600 has 119 MA's), (11, 10609), (12, 10669), (20, 10822), (30, 10918), (32, 10993), (34, 11038), (38, 11080), (40, 11098), (55, 11269), (60, 11299), (64, 11323), (65, 11332), (74, 11431), (77, 11452), (81, 11503),

Gene: FireRed\_18 Start: 10888, Stop: 11859, Start Num: 10

Candidate Starts for FireRed\_18:

(Start: 10 @10888 has 119 MA's), (11, 10897), (12, 10957), (20, 11110), (30, 11206), (32, 11281), (34, 11326), (38, 11368), (40, 11386), (55, 11557), (60, 11587), (64, 11611), (65, 11620), (74, 11719), (77, 11740), (81, 11791),

Gene: FirstPlacePfu\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for FirstPlacePfu\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: Fishburne\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Fishburne\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: Flypotenuse\_17 Start: 10995, Stop: 11966, Start Num: 10

Candidate Starts for Flypotenuse\_17:

(Start: 10 @10995 has 119 MA's), (11, 11004), (12, 11064), (20, 11217), (30, 11313), (32, 11388), (34, 11433), (38, 11475), (40, 11493), (55, 11664), (58, 11685), (62, 11706), (65, 11727), (69, 11772), (74, 11826), (78, 11859), (79, 11871), (81, 11898),

Gene: Fulbright\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Fulbright\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Gage\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Gage\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Gator\_17 Start: 10994, Stop: 11965, Start Num: 10

Candidate Starts for Gator\_17:

(Start: 10 @10994 has 119 MA's), (11, 11003), (12, 11063), (20, 11216), (30, 11312), (32, 11387), (34, 11432), (38, 11474), (40, 11492), (55, 11663), (58, 11684), (62, 11705), (65, 11726), (69, 11771), (74, 11825), (78, 11858), (79, 11870), (81, 11897),

Gene: Gemini\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Gemini\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Gex\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Gex\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Glaske\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for Glaske\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (17, 8981), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (47, 9452), (56, 9533), (75, 9695), (83, 9788), (86, 9812),

Gene: Glexan\_17 Start: 10995, Stop: 11966, Start Num: 10

Candidate Starts for Glexan\_17:

(Start: 10 @10995 has 119 MA's), (11, 11004), (12, 11064), (20, 11217), (30, 11313), (32, 11388), (34, 11433), (38, 11475), (40, 11493), (55, 11664), (58, 11685), (62, 11706), (65, 11727), (69, 11772), (74, 11826), (78, 11859), (79, 11871), (81, 11898),

Gene: Goku\_19 Start: 11087, Stop: 12058, Start Num: 10

Candidate Starts for Goku\_19:

(Start: 10 @11087 has 119 MA's), (11, 11096), (12, 11156), (20, 11309), (30, 11405), (32, 11480), (34, 11525), (38, 11567), (40, 11585), (55, 11756), (60, 11786), (64, 11810), (65, 11819), (67, 11834), (74, 11918), (81, 11990),

Gene: GoldenSpark\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for GoldenSpark\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Goldilocks\_20 Start: 10789, Stop: 11760, Start Num: 10

Candidate Starts for Goldilocks\_20:

(Start: 10 @10789 has 119 MA's), (11, 10798), (12, 10858), (20, 11011), (30, 11107), (32, 11182), (34, 11227), (38, 11269), (40, 11287), (55, 11458), (60, 11488), (64, 11512), (65, 11521), (74, 11620), (77, 11641), (81, 11692),

Gene: Gonephishing\_27 Start: 16487, Stop: 17491, Start Num: 9

Candidate Starts for Gonephishing\_27:

(Start: 9 @16487 has 122 MA's), (15, 16613), (22, 16763), (24, 16793), (26, 16817), (43, 17042), (45, 17096), (63, 17237), (69, 17294), (73, 17348),

Gene: GooberAzure\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for GooberAzure\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: GreaseLightnin\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for GreaseLightnin\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: HUHilltop\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for HUHilltop\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),



Gene: Halley\_31 Start: 18352, Stop: 19356, Start Num: 9

Candidate Starts for Halley\_31:

(Start: 9 @18352 has 122 MA's), (15, 18478), (22, 18628), (24, 18658), (26, 18682), (36, 18853), (43, 18907), (45, 18961), (48, 18982), (49, 18997), (61, 19090), (62, 19093), (63, 19102), (69, 19159), (77, 19231), (80, 19264), (85, 19324),

Gene: HanKaySha\_19 Start: 10590, Stop: 11564, Start Num: 10

Candidate Starts for HanKaySha\_19:

(Start: 10 @10590 has 119 MA's), (11, 10599), (12, 10659), (20, 10812), (30, 10908), (32, 10983), (34, 11028), (38, 11070), (40, 11088), (55, 11259), (60, 11289), (64, 11313), (65, 11322), (74, 11421), (77, 11442), (81, 11493),

Gene: Hannaconda\_26 Start: 14994, Stop: 15998, Start Num: 9

Candidate Starts for Hannaconda\_26:

(Start: 9 @14994 has 122 MA's), (15, 15120), (22, 15270), (24, 15300), (26, 15324), (43, 15549), (45, 15603), (63, 15744), (69, 15801), (73, 15855),

Gene: Harella\_17 Start: 10995, Stop: 11966, Start Num: 10

Candidate Starts for Harella\_17:

(Start: 10 @10995 has 119 MA's), (11, 11004), (12, 11064), (20, 11217), (30, 11313), (32, 11388), (34, 11433), (38, 11475), (40, 11493), (55, 11664), (58, 11685), (62, 11706), (65, 11727), (69, 11772), (74, 11826), (78, 11859), (79, 11871), (81, 11898),

Gene: Henry\_19 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for Henry\_19:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (58, 12068), (62, 12089), (65, 12110), (69, 12155), (74, 12209), (78, 12242), (79, 12254), (81, 12281),

Gene: Highbury\_19 Start: 10509, Stop: 11483, Start Num: 10

Candidate Starts for Highbury\_19:

(Start: 10 @10509 has 119 MA's), (11, 10518), (12, 10578), (20, 10731), (30, 10827), (32, 10902), (34, 10947), (38, 10989), (40, 11007), (55, 11178), (60, 11208), (64, 11232), (65, 11241), (74, 11340), (77, 11361), (81, 11412),

Gene: HokkenD\_26 Start: 17922, Stop: 18926, Start Num: 9

Candidate Starts for HokkenD\_26:

(Start: 9 @17922 has 122 MA's), (15, 18048), (22, 18198), (24, 18228), (26, 18252), (36, 18423), (43, 18477), (45, 18531), (48, 18552), (49, 18567), (61, 18660), (62, 18663), (63, 18672), (69, 18729), (77, 18801), (80, 18834), (85, 18894),

Gene: Holt\_20 Start: 10662, Stop: 11633, Start Num: 10

Candidate Starts for Holt\_20:

(Start: 10 @10662 has 119 MA's), (11, 10671), (12, 10731), (20, 10884), (30, 10980), (32, 11055), (34, 11100), (38, 11142), (40, 11160), (55, 11331), (60, 11361), (64, 11385), (65, 11394), (74, 11493), (77, 11514), (81, 11565),

Gene: Hoonter\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Hoonter\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Hopey\_19 Start: 10600, Stop: 11574, Start Num: 10

Candidate Starts for Hopey\_19:

(Start: 10 @10600 has 119 MA's), (11, 10609), (12, 10669), (20, 10822), (30, 10918), (32, 10993), (34, 11038), (38, 11080), (40, 11098), (55, 11269), (60, 11299), (64, 11323), (65, 11332), (74, 11431), (77, 11452), (81, 11503),

Gene: HufflyPuff\_17 Start: 10844, Stop: 11815, Start Num: 10

Candidate Starts for HufflyPuff\_17:

(Start: 10 @10844 has 119 MA's), (11, 10853), (12, 10913), (20, 11066), (30, 11162), (32, 11237), (34, 11282), (38, 11324), (40, 11342), (55, 11513), (60, 11543), (64, 11567), (65, 11576), (74, 11675), (77, 11696), (81, 11747),

Gene: Hughesyang\_30 Start: 18535, Stop: 19539, Start Num: 9

Candidate Starts for Hughesyang\_30:

(Start: 9 @18535 has 122 MA's), (15, 18661), (22, 18811), (24, 18841), (26, 18865), (36, 19036), (43, 19090), (45, 19144), (48, 19165), (49, 19180), (61, 19273), (62, 19276), (63, 19285), (69, 19342), (77, 19414), (80, 19447), (85, 19507),

Gene: IHOP\_18 Start: 11038, Stop: 12009, Start Num: 10

Candidate Starts for IHOP\_18:

(Start: 10 @11038 has 119 MA's), (11, 11047), (12, 11107), (20, 11260), (30, 11356), (32, 11431), (34, 11476), (38, 11518), (40, 11536), (55, 11707), (60, 11737), (64, 11761), (65, 11770), (74, 11869), (77, 11890), (81, 11941),

Gene: Icee\_18 Start: 11038, Stop: 12009, Start Num: 10

Candidate Starts for Icee\_18:

(Start: 10 @11038 has 119 MA's), (11, 11047), (12, 11107), (20, 11260), (30, 11356), (32, 11431), (34, 11476), (38, 11518), (40, 11536), (55, 11707), (60, 11737), (64, 11761), (65, 11770), (74, 11869), (77, 11890), (81, 11941),

Gene: Inca\_18 Start: 10058, Stop: 11029, Start Num: 10

Candidate Starts for Inca\_18:

(Start: 10 @10058 has 119 MA's), (11, 10067), (12, 10127), (20, 10280), (30, 10376), (32, 10451), (34, 10496), (38, 10538), (40, 10556), (55, 10727), (60, 10757), (64, 10781), (65, 10790), (74, 10889), (77, 10910), (81, 10961),

Gene: Jamie19\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Jamie19\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: JeTaime\_20 Start: 11640, Stop: 12614, Start Num: 10

Candidate Starts for JeTaime\_20:

(Start: 10 @11640 has 119 MA's), (11, 11649), (12, 11709), (20, 11862), (30, 11958), (32, 12033), (34, 12078), (38, 12120), (40, 12138), (55, 12309), (60, 12339), (64, 12363), (65, 12372), (74, 12471), (77, 12492), (81, 12543),

Gene: Jebeks\_14 Start: 8819, Stop: 9817, Start Num: 9

Candidate Starts for Jebeks\_14:

(1, 8522), (2, 8615), (7, 8780), (Start: 9 @8819 has 122 MA's), (11, 8843), (13, 8909), (14, 8927), (17, 8963), (23, 9098), (26, 9134), (33, 9284), (39, 9338), (41, 9350), (46, 9419), (53, 9494), (56, 9515), (75, 9677), (83, 9770), (86, 9794),

Gene: Journey\_14 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Journey\_14:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: JuicyJay\_32 Start: 19186, Stop: 20190, Start Num: 9

Candidate Starts for JuicyJay\_32:

(Start: 9 @19186 has 122 MA's), (15, 19312), (22, 19462), (24, 19492), (26, 19516), (36, 19687), (43, 19741), (45, 19795), (48, 19816), (49, 19831), (61, 19924), (62, 19927), (63, 19936), (69, 19993), (77, 20065), (80, 20098), (85, 20158),

Gene: Jung\_14 Start: 8862, Stop: 9860, Start Num: 9

Candidate Starts for Jung\_14:

(2, 8661), (4, 8712), (Start: 9 @8862 has 122 MA's), (11, 8886), (14, 8970), (17, 9006), (26, 9177), (33, 9327), (39, 9381), (41, 9393), (46, 9462), (47, 9477), (56, 9558), (75, 9720), (83, 9813), (86, 9837),

Gene: Juniormint\_14 Start: 8854, Stop: 9852, Start Num: 9

Candidate Starts for Juniormint\_14:

(7, 8815), (Start: 9 @8854 has 122 MA's), (11, 8878), (13, 8944), (14, 8962), (17, 8998), (23, 9133), (26, 9169), (33, 9319), (39, 9373), (41, 9385), (46, 9454), (53, 9529), (56, 9550), (75, 9712), (83, 9805), (86, 9829),

Gene: Kalah2\_32 Start: 18954, Stop: 19958, Start Num: 9

Candidate Starts for Kalah2\_32:

(Start: 9 @18954 has 122 MA's), (15, 19080), (22, 19230), (24, 19260), (26, 19284), (36, 19455), (43, 19509), (45, 19563), (48, 19584), (49, 19599), (61, 19692), (62, 19695), (63, 19704), (69, 19761), (77, 19833), (80, 19866), (85, 19926),

Gene: Kanye\_20 Start: 11828, Stop: 12802, Start Num: 10

Candidate Starts for Kanye\_20:

(Start: 10 @11828 has 119 MA's), (11, 11837), (12, 11897), (20, 12050), (30, 12146), (32, 12221), (34, 12266), (38, 12308), (40, 12326), (55, 12497), (60, 12527), (64, 12551), (65, 12560), (74, 12659), (77, 12680), (81, 12731),

Gene: Kari\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Kari\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: KashFlow\_23 Start: 14560, Stop: 15564, Start Num: 9

Candidate Starts for KashFlow\_23:

(Start: 9 @14560 has 122 MA's), (15, 14686), (22, 14836), (24, 14866), (26, 14890), (43, 15115), (45, 15169), (63, 15310), (69, 15367), (73, 15421),

Gene: Kevin1\_13 Start: 7898, Stop: 8956, Start Num: 9

Candidate Starts for Kevin1\_13:

(6, 7835), (Start: 9 @7898 has 122 MA's), (16, 8054), (30, 8276), (36, 8411), (42, 8468), (44, 8480), (51, 8603), (52, 8609), (54, 8636), (57, 8657), (66, 8720), (70, 8777), (76, 8828), (77, 8831), (81, 8882), (82, 8888), (84, 8921), (85, 8924),

Gene: KilKor\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for KilKor\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (17, 8981), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (47, 9452), (56, 9533), (75, 9695), (83, 9788), (86, 9812),

Gene: Kimchi\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Kimchi\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Klein\_31 Start: 17932, Stop: 18936, Start Num: 9

Candidate Starts for Klein\_31:

(Start: 9 @17932 has 122 MA's), (15, 18058), (22, 18208), (24, 18238), (26, 18262), (36, 18433), (43, 18487), (45, 18541), (48, 18562), (49, 18577), (61, 18670), (62, 18673), (63, 18682), (69, 18739), (77, 18811), (80, 18844), (85, 18904),

Gene: Kostya\_19 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for Kostya\_19:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (58, 12068), (62, 12089), (65, 12110), (69, 12155), (74, 12209), (78, 12242), (79, 12254), (81, 12281),

Gene: Ksquared\_14 Start: 8850, Stop: 9848, Start Num: 9

Candidate Starts for Ksquared\_14:

(7, 8811), (Start: 9 @8850 has 122 MA's), (11, 8874), (13, 8940), (14, 8958), (17, 8994), (23, 9129), (26, 9165), (33, 9315), (39, 9369), (41, 9381), (46, 9450), (53, 9525), (56, 9546), (75, 9708), (83, 9801), (86, 9825),

Gene: Langerak\_14 Start: 8818, Stop: 9816, Start Num: 9

Candidate Starts for Langerak\_14:

(7, 8779), (Start: 9 @8818 has 122 MA's), (11, 8842), (13, 8908), (14, 8926), (17, 8962), (23, 9097), (26, 9133), (33, 9283), (39, 9337), (41, 9349), (46, 9418), (53, 9493), (56, 9514), (75, 9676), (83, 9769), (86, 9793),

Gene: Lilac\_20 Start: 10336, Stop: 11310, Start Num: 10

Candidate Starts for Lilac\_20:

(Start: 10 @10336 has 119 MA's), (11, 10345), (12, 10405), (20, 10558), (30, 10654), (32, 10729), (34, 10774), (38, 10816), (40, 10834), (55, 11005), (60, 11035), (64, 11059), (65, 11068), (74, 11167), (77, 11188), (81, 11239),

Gene: Lilizi\_20 Start: 10547, Stop: 11521, Start Num: 10

Candidate Starts for Lilizi\_20:

(Start: 10 @10547 has 119 MA's), (11, 10556), (12, 10616), (20, 10769), (30, 10865), (32, 10940), (34, 10985), (38, 11027), (40, 11045), (55, 11216), (60, 11246), (64, 11270), (65, 11279), (74, 11378), (77, 11399), (81, 11450),

Gene: Lilpickle\_17 Start: 10055, Stop: 11029, Start Num: 10

Candidate Starts for Lilpickle\_17:

(Start: 10 @10055 has 119 MA's), (11, 10064), (12, 10124), (20, 10277), (30, 10373), (32, 10448), (34, 10493), (38, 10535), (40, 10553), (55, 10724), (60, 10754), (64, 10778), (65, 10787), (74, 10886), (77, 10907), (81, 10958),

Gene: LittleE\_29 Start: 17699, Stop: 18703, Start Num: 9

Candidate Starts for LittleE\_29:

(Start: 9 @17699 has 122 MA's), (15, 17825), (22, 17975), (24, 18005), (26, 18029), (43, 18254), (45, 18308), (63, 18449), (69, 18506), (73, 18560),

Gene: Lucky2013\_29 Start: 16442, Stop: 17446, Start Num: 9

Candidate Starts for Lucky2013\_29:

(Start: 9 @16442 has 122 MA's), (15, 16568), (22, 16718), (24, 16748), (26, 16772), (43, 16997), (45, 17051), (63, 17192), (69, 17249), (73, 17303),

Gene: MISSy\_18 Start: 10888, Stop: 11859, Start Num: 10

Candidate Starts for MISSy\_18:

(Start: 10 @10888 has 119 MA's), (11, 10897), (12, 10957), (20, 11110), (30, 11206), (32, 11281), (34, 11326), (38, 11368), (40, 11386), (55, 11557), (60, 11587), (64, 11611), (65, 11620), (74, 11719), (77, 11740), (81, 11791),

Gene: MPhalcon\_18 Start: 10888, Stop: 11859, Start Num: 10

Candidate Starts for MPhalcon\_18:

(Start: 10 @10888 has 119 MA's), (11, 10897), (12, 10957), (20, 11110), (30, 11206), (32, 11281), (34, 11326), (38, 11368), (40, 11386), (55, 11557), (60, 11587), (64, 11611), (65, 11620), (74, 11719), (77, 11740), (81, 11791),

Gene: MadamMonkfish\_18 Start: 10266, Stop: 11240, Start Num: 10

Candidate Starts for MadamMonkfish\_18:

(Start: 10 @10266 has 119 MA's), (11, 10275), (12, 10335), (20, 10488), (30, 10584), (32, 10659), (34, 10704), (38, 10746), (40, 10764), (55, 10935), (60, 10965), (64, 10989), (65, 10998), (74, 11097), (77, 11118), (81, 11169),

Gene: Magsby\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Magsby\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Majeke\_14 Start: 8818, Stop: 9816, Start Num: 9

Candidate Starts for Majeke\_14:

(7, 8779), (Start: 9 @8818 has 122 MA's), (11, 8842), (13, 8908), (14, 8926), (17, 8962), (23, 9097), (26, 9133), (33, 9283), (39, 9337), (41, 9349), (46, 9418), (53, 9493), (56, 9514), (75, 9676), (83, 9769), (86, 9793),

Gene: Malithi\_14 Start: 8874, Stop: 9872, Start Num: 9

Candidate Starts for Malithi\_14:

(2, 8673), (4, 8724), (Start: 9 @8874 has 122 MA's), (11, 8898), (13, 8964), (14, 8982), (23, 9153), (26, 9189), (33, 9339), (39, 9393), (41, 9405), (46, 9474), (53, 9549), (56, 9570), (75, 9732), (83, 9825), (86, 9849),

Gene: Manda\_19 Start: 11348, Stop: 12319, Start Num: 10

Candidate Starts for Manda\_19:

(Start: 10 @11348 has 119 MA's), (11, 11357), (12, 11417), (20, 11570), (30, 11666), (32, 11741), (34, 11786), (38, 11828), (40, 11846), (55, 12017), (60, 12047), (64, 12071), (65, 12080), (74, 12179), (77, 12200), (81, 12251),

Gene: Mangethe\_14 Start: 8818, Stop: 9816, Start Num: 9

Candidate Starts for Mangethe\_14:

(7, 8779), (Start: 9 @8818 has 122 MA's), (11, 8842), (13, 8908), (14, 8926), (17, 8962), (23, 9097), (26, 9133), (33, 9283), (39, 9337), (41, 9349), (46, 9418), (53, 9493), (56, 9514), (75, 9676), (83, 9769), (86, 9793),

Gene: Marshmallow\_19 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for Marshmallow\_19:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (60, 12077), (64, 12101), (65, 12110), (74, 12209), (77, 12230), (81, 12281),

Gene: Maxxinista\_19 Start: 10315, Stop: 11289, Start Num: 10

Candidate Starts for Maxxinista\_19:

(Start: 10 @10315 has 119 MA's), (11, 10324), (12, 10384), (20, 10537), (30, 10633), (32, 10708), (34, 10753), (38, 10795), (40, 10813), (55, 10984), (60, 11014), (64, 11038), (65, 11047), (74, 11146), (77, 11167), (81, 11218),

Gene: Megiddo\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for Megiddo\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (17, 8981), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (47, 9452), (56, 9533), (75, 9695), (83, 9788), (86, 9812),

Gene: Melville\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Melville\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: MiaZeal\_29 Start: 16133, Stop: 17137, Start Num: 9

Candidate Starts for MiaZeal\_29:

(Start: 9 @16133 has 122 MA's), (15, 16259), (22, 16409), (24, 16439), (26, 16463), (43, 16688), (45, 16742), (63, 16883), (69, 16940), (73, 16994),

Gene: MichelleMyBell\_13 Start: 7917, Stop: 8975, Start Num: 9

Candidate Starts for MichelleMyBell\_13:

(6, 7854), (Start: 9 @7917 has 122 MA's), (16, 8073), (30, 8295), (36, 8430), (42, 8487), (44, 8499), (51, 8622), (52, 8628), (54, 8655), (57, 8676), (60, 8691), (66, 8739), (70, 8796), (76, 8847), (77, 8850), (81, 8901), (82, 8907), (84, 8940), (85, 8943),

Gene: Mindy\_19 Start: 11157, Stop: 12128, Start Num: 10

Candidate Starts for Mindy\_19:

(Start: 10 @11157 has 119 MA's), (11, 11166), (12, 11226), (20, 11379), (30, 11475), (32, 11550), (34, 11595), (38, 11637), (40, 11655), (55, 11826), (58, 11847), (62, 11868), (65, 11889), (69, 11934), (74, 11988), (78, 12021), (79, 12033), (81, 12060),

Gene: Minerva\_31 Start: 18417, Stop: 19421, Start Num: 9

Candidate Starts for Minerva\_31:

(Start: 9 @18417 has 122 MA's), (15, 18543), (22, 18693), (24, 18723), (26, 18747), (36, 18918), (43, 18972), (45, 19026), (48, 19047), (49, 19062), (61, 19155), (62, 19158), (63, 19167), (69, 19224), (77, 19296), (80, 19329), (85, 19389),

Gene: Miniwave\_19 Start: 11576, Stop: 12547, Start Num: 10

Candidate Starts for Miniwave\_19:

(Start: 10 @11576 has 119 MA's), (11, 11585), (12, 11645), (20, 11798), (30, 11894), (32, 11969), (34, 12014), (38, 12056), (40, 12074), (55, 12245), (58, 12266), (62, 12287), (65, 12308), (69, 12353), (74, 12407), (78, 12440), (79, 12452), (81, 12479),

Gene: Misfit\_18 Start: 10932, Stop: 11906, Start Num: 10

Candidate Starts for Misfit\_18:

(Start: 10 @10932 has 119 MA's), (11, 10941), (12, 11001), (20, 11154), (30, 11250), (32, 11325), (34, 11370), (38, 11412), (40, 11430), (55, 11601), (60, 11631), (64, 11655), (65, 11664), (74, 11763), (77, 11784), (81, 11835),

Gene: Moldemort\_19 Start: 10590, Stop: 11564, Start Num: 10

Candidate Starts for Moldemort\_19:

(Start: 10 @10590 has 119 MA's), (11, 10599), (12, 10659), (20, 10812), (30, 10908), (32, 10983), (34, 11028), (38, 11070), (40, 11088), (55, 11259), (60, 11289), (64, 11313), (65, 11322), (74, 11421), (77, 11442), (81, 11493),

Gene: Mosby\_18 Start: 10886, Stop: 11857, Start Num: 10

Candidate Starts for Mosby\_18:

(Start: 10 @10886 has 119 MA's), (11, 10895), (12, 10955), (20, 11108), (30, 11204), (32, 11279), (34, 11324), (38, 11366), (40, 11384), (55, 11555), (60, 11585), (64, 11609), (65, 11618), (74, 11717), (77, 11738), (81, 11789),

Gene: Murica\_17 Start: 10844, Stop: 11815, Start Num: 10

Candidate Starts for Murica\_17:

(Start: 10 @10844 has 119 MA's), (11, 10853), (12, 10913), (20, 11066), (30, 11162), (32, 11237), (34, 11282), (38, 11324), (40, 11342), (55, 11513), (60, 11543), (64, 11567), (65, 11576), (74, 11675), (77, 11696), (81, 11747),

Gene: Murphy\_18 Start: 10307, Stop: 11281, Start Num: 10

Candidate Starts for Murphy\_18:

(Start: 10 @10307 has 119 MA's), (11, 10316), (12, 10376), (20, 10529), (30, 10625), (32, 10700), (34, 10745), (38, 10787), (40, 10805), (55, 10976), (60, 11006), (64, 11030), (65, 11039), (74, 11138), (77, 11159), (81, 11210),

Gene: Myrale\_19 Start: 11249, Stop: 12220, Start Num: 10

Candidate Starts for Myrale\_19:

(Start: 10 @11249 has 119 MA's), (11, 11258), (12, 11318), (20, 11471), (30, 11567), (32, 11642), (34, 11687), (38, 11729), (40, 11747), (55, 11918), (58, 11939), (62, 11960), (65, 11981), (69, 12026), (74, 12080), (78, 12113), (79, 12125), (81, 12152),

Gene: Nala\_18 Start: 10886, Stop: 11857, Start Num: 10

Candidate Starts for Nala\_18:

(Start: 10 @10886 has 119 MA's), (11, 10895), (12, 10955), (20, 11108), (30, 11204), (32, 11279), (34, 11324), (38, 11366), (40, 11384), (55, 11555), (60, 11585), (64, 11609), (65, 11618), (74, 11717), (77, 11738), (81, 11789),

Gene: Nazo\_13 Start: 8552, Stop: 9550, Start Num: 9

Candidate Starts for Nazo\_13:

(8, 8513), (Start: 9 @8552 has 122 MA's), (11, 8576), (12, 8636), (14, 8660), (23, 8831), (26, 8867), (28, 8879), (29, 8900), (31, 8954), (35, 9029), (39, 9071), (41, 9083), (56, 9248), (59, 9266), (64, 9293), (71, 9374), (77, 9425), (81, 9476), (83, 9503),

Gene: Necropolis\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Necropolis\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: NelitzaMV\_19 Start: 11448, Stop: 12419, Start Num: 10

Candidate Starts for NelitzaMV\_19:

(Start: 10 @11448 has 119 MA's), (11, 11457), (12, 11517), (20, 11670), (30, 11766), (32, 11841), (34, 11886), (38, 11928), (40, 11946), (55, 12117), (58, 12138), (62, 12159), (65, 12180), (69, 12225), (74, 12279), (78, 12312), (79, 12324), (81, 12351),

Gene: Nenae\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Nenae\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: NihilNomen\_30 Start: 18414, Stop: 19418, Start Num: 9

Candidate Starts for NihilNomen\_30:

(Start: 9 @18414 has 122 MA's), (15, 18540), (22, 18690), (24, 18720), (26, 18744), (36, 18915), (43, 18969), (45, 19023), (48, 19044), (49, 19059), (61, 19152), (62, 19155), (63, 19164), (69, 19221), (77, 19293), (80, 19326), (85, 19386),

Gene: Nimrod\_18 Start: 11087, Stop: 12061, Start Num: 10

Candidate Starts for Nimrod\_18:

(Start: 10 @11087 has 119 MA's), (11, 11096), (12, 11156), (20, 11309), (30, 11405), (32, 11480), (34, 11525), (38, 11567), (40, 11585), (55, 11756), (60, 11786), (64, 11810), (65, 11819), (74, 11918), (77, 11939), (81, 11990),

Gene: NoSleep\_19 Start: 10587, Stop: 11561, Start Num: 10

Candidate Starts for NoSleep\_19:

(Start: 10 @10587 has 119 MA's), (11, 10596), (12, 10656), (20, 10809), (30, 10905), (32, 10980), (34, 11025), (38, 11067), (40, 11085), (55, 11256), (60, 11286), (64, 11310), (65, 11319), (74, 11418), (77, 11439), (81, 11490),

Gene: Odette\_31 Start: 17895, Stop: 18899, Start Num: 9

Candidate Starts for Odette\_31:

(Start: 9 @17895 has 122 MA's), (15, 18021), (22, 18171), (24, 18201), (26, 18225), (36, 18396), (43, 18450), (45, 18504), (48, 18525), (49, 18540), (61, 18633), (62, 18636), (63, 18645), (69, 18702), (77, 18774), (80, 18807), (85, 18867),

Gene: Omega\_31 Start: 20059, Stop: 21063, Start Num: 9

Candidate Starts for Omega\_31:

(Start: 9 @20059 has 122 MA's), (15, 20185), (22, 20335), (24, 20365), (26, 20389), (43, 20614), (45, 20668), (63, 20809), (69, 20866), (73, 20920),

Gene: Optimus\_29 Start: 17992, Stop: 18996, Start Num: 9

Candidate Starts for Optimus\_29:

(Start: 9 @17992 has 122 MA's), (15, 18118), (22, 18268), (24, 18298), (26, 18322), (36, 18493), (43, 18547), (45, 18601), (48, 18622), (49, 18637), (61, 18730), (62, 18733), (63, 18742), (69, 18799), (77, 18871), (80, 18904), (85, 18964),



Gene: OrionPax\_19 Start: 10590, Stop: 11564, Start Num: 10

Candidate Starts for OrionPax\_19:

(Start: 10 @10590 has 119 MA's), (11, 10599), (12, 10659), (20, 10812), (30, 10908), (32, 10983), (34, 11028), (38, 11070), (40, 11088), (55, 11259), (60, 11289), (64, 11313), (65, 11322), (74, 11421), (77, 11442), (81, 11493),

Gene: Palpatine\_18 Start: 10892, Stop: 11854, Start Num: 11

Candidate Starts for Palpatine\_18:

(Start: 10 @10883 has 119 MA's), (11, 10892), (12, 10952), (20, 11105), (30, 11201), (32, 11276), (34, 11321), (38, 11363), (40, 11381), (55, 11552), (60, 11582), (64, 11606), (65, 11615), (74, 11714), (77, 11735), (81, 11786),

Gene: Panchino\_13 Start: 7899, Stop: 8957, Start Num: 9

Candidate Starts for Panchino\_13:

(6, 7836), (Start: 9 @7899 has 122 MA's), (16, 8055), (27, 8247), (30, 8277), (36, 8412), (42, 8469), (44, 8481), (51, 8604), (52, 8610), (55, 8640), (57, 8658), (60, 8673), (66, 8721), (68, 8733), (70, 8778), (77, 8832), (82, 8889), (84, 8922), (85, 8925),

Gene: Paperbeatsrock\_20 Start: 11822, Stop: 12796, Start Num: 10

Candidate Starts for Paperbeatsrock\_20:

(Start: 10 @11822 has 119 MA's), (11, 11831), (12, 11891), (20, 12044), (30, 12140), (32, 12215), (34, 12260), (38, 12302), (40, 12320), (55, 12491), (60, 12521), (64, 12545), (65, 12554), (74, 12653), (77, 12674), (81, 12725),

Gene: Parmesanjohn\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Parmesanjohn\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Pat3\_18 Start: 10090, Stop: 11061, Start Num: 10

Candidate Starts for Pat3\_18:

(Start: 10 @10090 has 119 MA's), (11, 10099), (12, 10159), (20, 10312), (30, 10408), (32, 10483), (34, 10528), (38, 10570), (40, 10588), (55, 10759), (60, 10789), (64, 10813), (65, 10822), (67, 10837), (74, 10921), (81, 10993),

Gene: Petra64142\_19 Start: 11303, Stop: 12277, Start Num: 10

Candidate Starts for Petra64142\_19:

(Start: 10 @11303 has 119 MA's), (11, 11312), (12, 11372), (20, 11525), (30, 11621), (32, 11696), (34, 11741), (38, 11783), (40, 11801), (55, 11972), (60, 12002), (64, 12026), (65, 12035), (74, 12134), (77, 12155), (81, 12206),

Gene: Phaja\_18 Start: 11038, Stop: 12009, Start Num: 10

Candidate Starts for Phaja\_18:

(Start: 10 @11038 has 119 MA's), (11, 11047), (12, 11107), (20, 11260), (30, 11356), (32, 11431), (34, 11476), (38, 11518), (40, 11536), (55, 11707), (60, 11737), (64, 11761), (65, 11770), (74, 11869), (77, 11890), (81, 11941),

Gene: Phalm\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for Phalm\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (17, 8981), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (47, 9452), (56, 9533), (75, 9695), (83, 9788), (86,

9812),

Gene: PhancyPhin\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for PhancyPhin\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Pharsalus\_19 Start: 11622, Stop: 12596, Start Num: 10

Candidate Starts for Pharsalus\_19:

(Start: 10 @11622 has 119 MA's), (11, 11631), (12, 11691), (20, 11844), (30, 11940), (32, 12015), (34, 12060), (38, 12102), (40, 12120), (55, 12291), (60, 12321), (64, 12345), (65, 12354), (74, 12453), (77, 12474), (81, 12525),

Gene: PhatBacter\_18 Start: 10888, Stop: 11859, Start Num: 10

Candidate Starts for PhatBacter\_18:

(Start: 10 @10888 has 119 MA's), (11, 10897), (12, 10957), (20, 11110), (30, 11206), (32, 11281), (34, 11326), (38, 11368), (40, 11386), (55, 11557), (60, 11587), (64, 11611), (65, 11620), (74, 11719), (77, 11740), (81, 11791),

Gene: Phaux\_17 Start: 10886, Stop: 11857, Start Num: 10

Candidate Starts for Phaux\_17:

(Start: 10 @10886 has 119 MA's), (11, 10895), (12, 10955), (20, 11108), (30, 11204), (32, 11279), (34, 11324), (38, 11366), (40, 11384), (55, 11555), (60, 11585), (64, 11609), (65, 11618), (74, 11717), (77, 11738), (81, 11789),

Gene: Phayonce\_13 Start: 8501, Stop: 9499, Start Num: 9

Candidate Starts for Phayonce\_13:

(Start: 9 @8501 has 122 MA's), (11, 8525), (14, 8609), (17, 8645), (18, 8669), (19, 8732), (23, 8780), (25, 8813), (26, 8816), (33, 8966), (37, 9002), (39, 9020), (41, 9032), (46, 9101), (47, 9116), (56, 9197), (64, 9242), (75, 9359), (83, 9452), (87, 9479),

Gene: Phegasus\_14 Start: 8818, Stop: 9816, Start Num: 9

Candidate Starts for Phegasus\_14:

(7, 8779), (Start: 9 @8818 has 122 MA's), (11, 8842), (13, 8908), (14, 8926), (17, 8962), (23, 9097), (26, 9133), (33, 9283), (39, 9337), (41, 9349), (46, 9418), (53, 9493), (56, 9514), (75, 9676), (83, 9769), (86, 9793),

Gene: Philonius\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Philonius\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Phineas\_14 Start: 8822, Stop: 9820, Start Num: 9

Candidate Starts for Phineas\_14:

(7, 8783), (Start: 9 @8822 has 122 MA's), (11, 8846), (13, 8912), (14, 8930), (17, 8966), (23, 9101), (26, 9137), (33, 9287), (39, 9341), (41, 9353), (46, 9422), (53, 9497), (56, 9518), (75, 9680), (83, 9773), (86, 9797),

Gene: Phloss\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Phloss\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Phoebus\_31 Start: 18639, Stop: 19643, Start Num: 9

Candidate Starts for Phoebus\_31:

(Start: 9 @18639 has 122 MA's), (15, 18765), (22, 18915), (24, 18945), (26, 18969), (36, 19140), (43, 19194), (45, 19248), (48, 19269), (49, 19284), (61, 19377), (62, 19380), (63, 19389), (69, 19446), (77, 19518), (80, 19551), (85, 19611),

Gene: Phrann\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Phrann\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (42, 8493), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Phrux\_18 Start: 10586, Stop: 11560, Start Num: 10

Candidate Starts for Phrux\_18:

(Start: 10 @10586 has 119 MA's), (11, 10595), (12, 10655), (20, 10808), (30, 10904), (32, 10979), (34, 11024), (38, 11066), (40, 11084), (55, 11255), (60, 11285), (64, 11309), (65, 11318), (74, 11417), (77, 11438), (81, 11489),

Gene: Pipsqueaks\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Pipsqueaks\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Policronamos\_18 Start: 10888, Stop: 11859, Start Num: 10

Candidate Starts for Policronamos\_18:

(Start: 10 @10888 has 119 MA's), (11, 10897), (12, 10957), (20, 11110), (30, 11206), (32, 11281), (34, 11326), (38, 11368), (40, 11386), (55, 11557), (60, 11587), (64, 11611), (65, 11620), (74, 11719), (77, 11740), (81, 11791),

Gene: Polkaroo\_14 Start: 8850, Stop: 9848, Start Num: 9

Candidate Starts for Polkaroo\_14:

(7, 8811), (Start: 9 @8850 has 122 MA's), (11, 8874), (13, 8940), (14, 8958), (17, 8994), (23, 9129), (26, 9165), (33, 9315), (39, 9369), (41, 9381), (46, 9450), (53, 9525), (56, 9546), (75, 9708), (83, 9801), (86, 9825),

Gene: Porcelain\_28 Start: 16133, Stop: 17137, Start Num: 9

Candidate Starts for Porcelain\_28:

(Start: 9 @16133 has 122 MA's), (15, 16259), (22, 16409), (24, 16439), (26, 16463), (43, 16688), (45, 16742), (63, 16883), (69, 16940), (73, 16994),

Gene: Porky\_17 Start: 10160, Stop: 11134, Start Num: 10

Candidate Starts for Porky\_17:

(Start: 10 @10160 has 119 MA's), (11, 10169), (12, 10229), (20, 10382), (30, 10478), (32, 10553), (34, 10598), (38, 10640), (40, 10658), (55, 10829), (60, 10859), (64, 10883), (65, 10892), (74, 10991), (77, 11012), (81, 11063),

Gene: Pound\_31 Start: 18731, Stop: 19735, Start Num: 9

Candidate Starts for Pound\_31:

(Start: 9 @18731 has 122 MA's), (15, 18857), (22, 19007), (24, 19037), (26, 19061), (36, 19232), (43, 19286), (45, 19340), (48, 19361), (49, 19376), (61, 19469), (62, 19472), (63, 19481), (69, 19538), (77, 19610), (80, 19643), (85, 19703),

Gene: Pumpkin\_19 Start: 10403, Stop: 11377, Start Num: 10

Candidate Starts for Pumpkin\_19:

(Start: 10 @10403 has 119 MA's), (11, 10412), (12, 10472), (20, 10625), (30, 10721), (32, 10796), (34, 10841), (38, 10883), (40, 10901), (55, 11072), (60, 11102), (64, 11126), (65, 11135), (74, 11234), (77, 11255), (81, 11306),

Gene: Purgamenstris\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Purgamenstris\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Purky\_13 Start: 8511, Stop: 9509, Start Num: 9

Candidate Starts for Purky\_13:

(5, 8436), (7, 8472), (Start: 9 @8511 has 122 MA's), (11, 8535), (14, 8619), (17, 8655), (23, 8790), (26, 8826), (33, 8976), (39, 9030), (41, 9042), (46, 9111), (47, 9126), (56, 9207), (59, 9225), (64, 9252), (71, 9333), (75, 9369), (77, 9384), (83, 9462),

Gene: Pygmy\_13 Start: 8552, Stop: 9550, Start Num: 9

Candidate Starts for Pygmy\_13:

(2, 8351), (4, 8402), (7, 8513), (Start: 9 @8552 has 122 MA's), (11, 8576), (13, 8642), (14, 8660), (17, 8696), (23, 8831), (26, 8867), (33, 9017), (39, 9071), (41, 9083), (46, 9152), (53, 9227), (56, 9248), (75, 9410), (83, 9503), (86, 9527),

Gene: Quallification\_20 Start: 11585, Stop: 12556, Start Num: 10

Candidate Starts for Quallification\_20:

(Start: 10 @11585 has 119 MA's), (11, 11594), (12, 11654), (20, 11807), (30, 11903), (32, 11978), (34, 12023), (38, 12065), (40, 12083), (55, 12254), (58, 12275), (62, 12296), (65, 12317), (69, 12362), (74, 12416), (78, 12449), (79, 12461), (81, 12488),

Gene: Rakim\_20 Start: 11492, Stop: 12463, Start Num: 10

Candidate Starts for Rakim\_20:

(Start: 10 @11492 has 119 MA's), (11, 11501), (12, 11561), (20, 11714), (30, 11810), (32, 11885), (34, 11930), (38, 11972), (40, 11990), (55, 12161), (58, 12182), (62, 12203), (65, 12224), (69, 12269), (74, 12323), (78, 12356), (79, 12368), (81, 12395),

Gene: Raymond7\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Raymond7\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Rebel\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Rebel\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Redi\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Redi\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Redno2\_30 Start: 18123, Stop: 19127, Start Num: 9

Candidate Starts for Redno2\_30:

(Start: 9 @18123 has 122 MA's), (15, 18249), (22, 18399), (24, 18429), (26, 18453), (36, 18624), (43, 18678), (45, 18732), (48, 18753), (49, 18768), (61, 18861), (62, 18864), (63, 18873), (69, 18930), (77, 19002), (80, 19035), (85, 19095),

Gene: Rimmer\_18 Start: 10945, Stop: 11916, Start Num: 10

Candidate Starts for Rimmer\_18:

(Start: 10 @10945 has 119 MA's), (11, 10954), (12, 11014), (20, 11167), (30, 11263), (32, 11338), (34, 11383), (38, 11425), (40, 11443), (55, 11614), (60, 11644), (64, 11668), (65, 11677), (74, 11776), (77, 11797), (81, 11848),

Gene: RiverMonster\_18 Start: 10600, Stop: 11574, Start Num: 10

Candidate Starts for RiverMonster\_18:

(Start: 10 @10600 has 119 MA's), (11, 10609), (12, 10669), (20, 10822), (30, 10918), (32, 10993), (34, 11038), (38, 11080), (40, 11098), (55, 11269), (60, 11299), (64, 11323), (65, 11332), (74, 11431), (77, 11452), (81, 11503),

Gene: Rubeelu\_13 Start: 7898, Stop: 8956, Start Num: 9

Candidate Starts for Rubeelu\_13:

(6, 7835), (Start: 9 @7898 has 122 MA's), (16, 8054), (30, 8276), (36, 8411), (42, 8468), (44, 8480), (51, 8603), (52, 8609), (54, 8636), (57, 8657), (66, 8720), (70, 8777), (76, 8828), (77, 8831), (81, 8882), (82, 8888), (84, 8921), (85, 8924),

Gene: Saints25\_19 Start: 10509, Stop: 11483, Start Num: 10

Candidate Starts for Saints25\_19:

(Start: 10 @10509 has 119 MA's), (11, 10518), (12, 10578), (20, 10731), (30, 10827), (32, 10902), (34, 10947), (38, 10989), (40, 11007), (55, 11178), (60, 11208), (64, 11232), (65, 11241), (74, 11340), (77, 11361), (81, 11412),

Gene: Sassay\_18 Start: 10886, Stop: 11857, Start Num: 10

Candidate Starts for Sassay\_18:

(Start: 10 @10886 has 119 MA's), (11, 10895), (12, 10955), (20, 11108), (30, 11204), (32, 11279), (34, 11324), (38, 11366), (40, 11384), (55, 11555), (60, 11585), (64, 11609), (65, 11618), (74, 11717), (77, 11738), (81, 11789),

Gene: Schatzie\_29 Start: 17664, Stop: 18668, Start Num: 9

Candidate Starts for Schatzie\_29:

(Start: 9 @17664 has 122 MA's), (15, 17790), (22, 17940), (24, 17970), (26, 17994), (36, 18165), (43, 18219), (45, 18273), (48, 18294), (49, 18309), (61, 18402), (62, 18405), (63, 18414), (69, 18471), (77, 18543), (80, 18576), (85, 18636),

Gene: Schnauzer\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Schnauzer\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Scitech\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Scitech\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: ShamWow\_19 Start: 11379, Stop: 12350, Start Num: 10

Candidate Starts for ShamWow\_19:

(Start: 10 @11379 has 119 MA's), (11, 11388), (12, 11448), (20, 11601), (30, 11697), (32, 11772), (34, 11817), (38, 11859), (40, 11877), (55, 12048), (58, 12069), (62, 12090), (65, 12111), (69, 12156), (74, 12210), (78, 12243), (79, 12255), (81, 12282),

Gene: ShereKhan\_20 Start: 11828, Stop: 12802, Start Num: 10

Candidate Starts for ShereKhan\_20:

(Start: 10 @11828 has 119 MA's), (11, 11837), (12, 11897), (20, 12050), (30, 12146), (32, 12221), (34, 12266), (38, 12308), (40, 12326), (55, 12497), (60, 12527), (64, 12551), (65, 12560), (74, 12659), (77, 12680), (81, 12731),

Gene: Shipwreck\_13 Start: 8530, Stop: 9528, Start Num: 9

Candidate Starts for Shipwreck\_13:

(2, 8329), (4, 8380), (7, 8491), (Start: 9 @8530 has 122 MA's), (11, 8554), (13, 8620), (14, 8638), (23, 8809), (26, 8845), (33, 8995), (39, 9049), (41, 9061), (46, 9130), (53, 9205), (56, 9226), (75, 9388), (83, 9481), (86, 9505),

Gene: ShrimpFriedEgg\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for ShrimpFriedEgg\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Shweta\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Shweta\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Silvafighter\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Silvafighter\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Silvy\_13 Start: 7878, Stop: 8936, Start Num: 9

Candidate Starts for Silvy\_13:

(6, 7815), (Start: 9 @7878 has 122 MA's), (12, 7968), (16, 8034), (21, 8163), (30, 8256), (36, 8391), (42, 8448), (44, 8460), (50, 8571), (51, 8583), (52, 8589), (57, 8637), (66, 8700), (70, 8757), (76, 8808), (77, 8811), (84, 8901),

Gene: Simpliphy\_19 Start: 10590, Stop: 11564, Start Num: 10

Candidate Starts for Simpliphy\_19:

(Start: 10 @10590 has 119 MA's), (11, 10599), (12, 10659), (20, 10812), (30, 10908), (32, 10983), (34, 11028), (38, 11070), (40, 11088), (55, 11259), (60, 11289), (64, 11313), (65, 11322), (74, 11421), (77, 11442), (81, 11493),

Gene: SirDuracell\_18 Start: 10045, Stop: 11016, Start Num: 10

Candidate Starts for SirDuracell\_18:

(Start: 10 @10045 has 119 MA's), (11, 10054), (12, 10114), (20, 10267), (30, 10363), (32, 10438), (34, 10483), (38, 10525), (40, 10543), (55, 10714), (60, 10744), (64, 10768), (65, 10777), (74, 10876), (77, 10897), (81, 10948),

Gene: SkinnyPete\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for SkinnyPete\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Smurph\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Smurph\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Snekmaggedon\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for Snekmaggedon\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Sonah\_14 Start: 8820, Stop: 9818, Start Num: 9

Candidate Starts for Sonah\_14:

(7, 8781), (Start: 9 @8820 has 122 MA's), (11, 8844), (13, 8910), (14, 8928), (17, 8964), (23, 9099), (26, 9135), (33, 9285), (39, 9339), (41, 9351), (46, 9420), (53, 9495), (56, 9516), (75, 9678), (83, 9771), (86, 9795),

Gene: SophKB\_19 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for SophKB\_19:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (58, 12068), (62, 12089), (65, 12110), (69, 12155), (74, 12209), (78, 12242), (79, 12254), (81, 12281),

Gene: Sotrice96\_19 Start: 11334, Stop: 12305, Start Num: 10

Candidate Starts for Sotrice96\_19:

(Start: 10 @11334 has 119 MA's), (11, 11343), (12, 11403), (20, 11556), (30, 11652), (32, 11727), (34, 11772), (38, 11814), (40, 11832), (55, 12003), (60, 12033), (64, 12057), (65, 12066), (74, 12165), (77, 12186), (81, 12237),

Gene: SpongeBob\_13 Start: 7923, Stop: 8981, Start Num: 9

Candidate Starts for SpongeBob\_13:

(6, 7860), (Start: 9 @7923 has 122 MA's), (16, 8079), (27, 8271), (30, 8301), (36, 8436), (42, 8493), (44, 8505), (51, 8628), (52, 8634), (55, 8664), (57, 8682), (60, 8697), (66, 8745), (68, 8757), (70, 8802), (77, 8856), (82, 8913), (84, 8946), (85, 8949),

Gene: Squint\_28 Start: 16260, Stop: 17264, Start Num: 9

Candidate Starts for Squint\_28:

(Start: 9 @16260 has 122 MA's), (15, 16386), (22, 16536), (24, 16566), (26, 16590), (43, 16815), (45, 16869), (63, 17010), (69, 17067), (73, 17121),

Gene: Stank\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Stank\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Stark\_19 Start: 10603, Stop: 11577, Start Num: 10

Candidate Starts for Stark\_19:

(Start: 10 @10603 has 119 MA's), (11, 10612), (12, 10672), (20, 10825), (30, 10921), (32, 10996), (34, 11041), (38, 11083), (40, 11101), (55, 11272), (60, 11302), (64, 11326), (65, 11335), (74, 11434), (77, 11455), (81, 11506),

Gene: StellaBean\_19 Start: 11387, Stop: 12349, Start Num: 11

Candidate Starts for StellaBean\_19:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (58, 12068), (62, 12089), (65, 12110), (69, 12155), (74, 12209), (78, 12242), (79, 12254), (81, 12281),

Gene: StevieRay\_14 Start: 8825, Stop: 9823, Start Num: 9

Candidate Starts for StevieRay\_14:

(7, 8786), (Start: 9 @8825 has 122 MA's), (11, 8849), (13, 8915), (14, 8933), (17, 8969), (23, 9104), (26, 9140), (33, 9290), (39, 9344), (41, 9356), (46, 9425), (53, 9500), (56, 9521), (75, 9683), (83, 9776), (86, 9800),

Gene: StolenFromERC\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for StolenFromERC\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: StressBall\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for StressBall\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (17, 8981), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (47, 9452), (56, 9533), (75, 9695), (83, 9788), (86, 9812),

Gene: Superphikiman\_29 Start: 16315, Stop: 17319, Start Num: 9

Candidate Starts for Superphikiman\_29:

(Start: 9 @16315 has 122 MA's), (15, 16441), (22, 16591), (24, 16621), (26, 16645), (43, 16870), (45, 16924), (63, 17065), (69, 17122), (73, 17176),

Gene: TBrady12\_20 Start: 10832, Stop: 11806, Start Num: 10

Candidate Starts for TBrady12\_20:

(Start: 10 @10832 has 119 MA's), (11, 10841), (12, 10901), (20, 11054), (30, 11150), (32, 11225), (34, 11270), (38, 11312), (40, 11330), (55, 11501), (60, 11531), (64, 11555), (65, 11564), (74, 11663), (77, 11684), (81, 11735),

Gene: Tapioca\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Tapioca\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),



Gene: Tarkin\_20 Start: 11831, Stop: 12805, Start Num: 10

Candidate Starts for Tarkin\_20:

(Start: 10 @11831 has 119 MA's), (11, 11840), (12, 11900), (20, 12053), (30, 12149), (32, 12224), (34, 12269), (38, 12311), (40, 12329), (55, 12500), (60, 12530), (64, 12554), (65, 12563), (74, 12662), (77, 12683), (81, 12734),

Gene: TeardropMSU\_18 Start: 11286, Stop: 12257, Start Num: 10

Candidate Starts for TeardropMSU\_18:

(Start: 10 @11286 has 119 MA's), (11, 11295), (12, 11355), (20, 11508), (30, 11604), (32, 11679), (34, 11724), (38, 11766), (40, 11784), (55, 11955), (58, 11976), (62, 11997), (65, 12018), (69, 12063), (74, 12117), (78, 12150), (79, 12162), (81, 12189),

Gene: Teaspoon\_18 Start: 10285, Stop: 11259, Start Num: 10

Candidate Starts for Teaspoon\_18:

(Start: 10 @10285 has 119 MA's), (11, 10294), (12, 10354), (20, 10507), (30, 10603), (32, 10678), (34, 10723), (38, 10765), (40, 10783), (55, 10954), (60, 10984), (64, 11008), (65, 11017), (74, 11116), (77, 11137), (81, 11188),

Gene: Techage\_14 Start: 8821, Stop: 9819, Start Num: 9

Candidate Starts for Techage\_14:

(7, 8782), (Start: 9 @8821 has 122 MA's), (11, 8845), (13, 8911), (14, 8929), (17, 8965), (23, 9100), (26, 9136), (33, 9286), (39, 9340), (41, 9352), (46, 9421), (53, 9496), (56, 9517), (75, 9679), (83, 9772), (86, 9796),

Gene: Terminus\_18 Start: 10932, Stop: 11906, Start Num: 10

Candidate Starts for Terminus\_18:

(Start: 10 @10932 has 119 MA's), (11, 10941), (12, 11001), (20, 11154), (30, 11250), (32, 11325), (34, 11370), (38, 11412), (40, 11430), (55, 11601), (60, 11631), (64, 11655), (65, 11664), (74, 11763), (77, 11784), (81, 11835),

Gene: Thespis\_14 Start: 8837, Stop: 9835, Start Num: 9

Candidate Starts for Thespis\_14:

(7, 8798), (Start: 9 @8837 has 122 MA's), (11, 8861), (13, 8927), (14, 8945), (23, 9116), (26, 9152), (33, 9302), (39, 9356), (41, 9368), (46, 9437), (53, 9512), (56, 9533), (75, 9695), (83, 9788), (86, 9812),

Gene: Thibault\_27 Start: 17923, Stop: 18927, Start Num: 9

Candidate Starts for Thibault\_27:

(Start: 9 @17923 has 122 MA's), (15, 18049), (22, 18199), (24, 18229), (26, 18253), (36, 18424), (43, 18478), (45, 18532), (48, 18553), (49, 18568), (61, 18661), (62, 18664), (63, 18673), (69, 18730), (77, 18802), (80, 18835), (85, 18895),

Gene: ThreeRngTarjay\_30 Start: 18489, Stop: 19493, Start Num: 9

Candidate Starts for ThreeRngTarjay\_30:

(Start: 9 @18489 has 122 MA's), (15, 18615), (22, 18765), (24, 18795), (26, 18819), (36, 18990), (43, 19044), (45, 19098), (48, 19119), (49, 19134), (61, 19227), (62, 19230), (63, 19239), (69, 19296), (77, 19368), (80, 19401), (85, 19461),

Gene: Thresher\_19 Start: 11593, Stop: 12567, Start Num: 10

Candidate Starts for Thresher\_19:

(Start: 10 @11593 has 119 MA's), (11, 11602), (12, 11662), (20, 11815), (30, 11911), (32, 11986), (34, 12031), (38, 12073), (40, 12091), (55, 12262), (60, 12292), (64, 12316), (65, 12325), (74, 12424), (77,

12445), (81, 12496),

Gene: ThulaThula\_13 Start: 8507, Stop: 9505, Start Num: 9

Candidate Starts for ThulaThula\_13:

(Start: 9 @8507 has 122 MA's), (11, 8531), (14, 8615), (17, 8651), (18, 8675), (19, 8738), (23, 8786), (25, 8819), (26, 8822), (33, 8972), (37, 9008), (39, 9026), (41, 9038), (47, 9122), (56, 9203), (64, 9248), (75, 9365), (83, 9458),

Gene: Tomaszewski\_18 Start: 10979, Stop: 11950, Start Num: 10

Candidate Starts for Tomaszewski\_18:

(Start: 10 @10979 has 119 MA's), (11, 10988), (12, 11048), (20, 11201), (30, 11297), (32, 11372), (34, 11417), (38, 11459), (40, 11477), (55, 11648), (60, 11678), (64, 11702), (65, 11711), (74, 11810), (77, 11831), (81, 11882),

Gene: Tortellini\_13 Start: 8525, Stop: 9523, Start Num: 9

Candidate Starts for Tortellini\_13:

(3, 8330), (5, 8450), (7, 8486), (Start: 9 @8525 has 122 MA's), (11, 8549), (14, 8633), (17, 8669), (23, 8804), (26, 8840), (33, 8990), (39, 9044), (41, 9056), (46, 9125), (47, 9140), (56, 9221), (59, 9239), (64, 9266), (71, 9347), (72, 9350), (75, 9383), (77, 9398), (81, 9449), (83, 9476), (86, 9500),

Gene: Toto\_19 Start: 11379, Stop: 12350, Start Num: 10

Candidate Starts for Toto\_19:

(Start: 10 @11379 has 119 MA's), (11, 11388), (12, 11448), (20, 11601), (30, 11697), (32, 11772), (34, 11817), (38, 11859), (40, 11877), (55, 12048), (58, 12069), (62, 12090), (65, 12111), (69, 12156), (74, 12210), (78, 12243), (79, 12255), (81, 12282),

Gene: Traaww1\_17 Start: 11024, Stop: 11995, Start Num: 10

Candidate Starts for Traaww1\_17:

(Start: 10 @11024 has 119 MA's), (11, 11033), (12, 11093), (20, 11246), (30, 11342), (32, 11417), (34, 11462), (38, 11504), (40, 11522), (55, 11693), (60, 11723), (64, 11747), (65, 11756), (74, 11855), (77, 11876), (81, 11927),

Gene: Tuco\_19 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for Tuco\_19:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (58, 12068), (62, 12089), (65, 12110), (69, 12155), (74, 12209), (78, 12242), (79, 12254), (81, 12281),

Gene: Ukulele\_18 Start: 10603, Stop: 11577, Start Num: 10

Candidate Starts for Ukulele\_18:

(Start: 10 @10603 has 119 MA's), (11, 10612), (12, 10672), (20, 10825), (30, 10921), (32, 10996), (34, 11041), (38, 11083), (40, 11101), (55, 11272), (60, 11302), (64, 11326), (65, 11335), (74, 11434), (77, 11455), (81, 11506),

Gene: Venti\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Venti\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: Vidya\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Vidya\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: Wanda\_32 Start: 17932, Stop: 18936, Start Num: 9

Candidate Starts for Wanda\_32:

(Start: 9 @17932 has 122 MA's), (15, 18058), (22, 18208), (24, 18238), (26, 18262), (36, 18433), (43, 18487), (45, 18541), (48, 18562), (49, 18577), (61, 18670), (62, 18673), (63, 18682), (69, 18739), (77, 18811), (80, 18844), (85, 18904),

Gene: Wiggin\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Wiggin\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Willez\_18 Start: 10886, Stop: 11857, Start Num: 10

Candidate Starts for Willez\_18:

(Start: 10 @10886 has 119 MA's), (11, 10895), (12, 10955), (20, 11108), (30, 11204), (32, 11279), (34, 11324), (38, 11366), (40, 11384), (55, 11555), (60, 11585), (64, 11609), (65, 11618), (74, 11717), (77, 11738), (81, 11789),

Gene: Willsammy\_14 Start: 8840, Stop: 9838, Start Num: 9

Candidate Starts for Willsammy\_14:

(7, 8801), (Start: 9 @8840 has 122 MA's), (11, 8864), (13, 8930), (14, 8948), (23, 9119), (26, 9155), (33, 9305), (39, 9359), (41, 9371), (46, 9440), (53, 9515), (56, 9536), (75, 9698), (83, 9791), (86, 9815),

Gene: Xandras\_20 Start: 10835, Stop: 11809, Start Num: 10

Candidate Starts for Xandras\_20:

(Start: 10 @10835 has 119 MA's), (11, 10844), (12, 10904), (20, 11057), (30, 11153), (32, 11228), (34, 11273), (38, 11315), (40, 11333), (55, 11504), (60, 11534), (64, 11558), (65, 11567), (74, 11666), (77, 11687), (81, 11738),

Gene: Xavia\_14 Start: 8838, Stop: 9836, Start Num: 9

Candidate Starts for Xavia\_14:

(7, 8799), (Start: 9 @8838 has 122 MA's), (11, 8862), (13, 8928), (14, 8946), (17, 8982), (23, 9117), (26, 9153), (33, 9303), (39, 9357), (41, 9369), (46, 9438), (53, 9513), (56, 9534), (75, 9696), (83, 9789), (86, 9813),

Gene: Xeno\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Xeno\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: Xerxes\_13 Start: 7877, Stop: 8935, Start Num: 9

Candidate Starts for Xerxes\_13:

(6, 7814), (Start: 9 @7877 has 122 MA's), (12, 7967), (16, 8033), (21, 8162), (30, 8255), (36, 8390), (42, 8447), (44, 8459), (50, 8570), (51, 8582), (52, 8588), (57, 8636), (66, 8699), (70, 8756), (76, 8807), (77, 8810), (84, 8900),

Gene: YassJohnny\_19 Start: 11378, Stop: 12349, Start Num: 10

Candidate Starts for YassJohnny\_19:

(Start: 10 @11378 has 119 MA's), (11, 11387), (12, 11447), (20, 11600), (30, 11696), (32, 11771), (34, 11816), (38, 11858), (40, 11876), (55, 12047), (60, 12077), (64, 12101), (65, 12110), (74, 12209), (77, 12230), (81, 12281),

Gene: Yeet\_29 Start: 17665, Stop: 18669, Start Num: 9

Candidate Starts for Yeet\_29:

(Start: 9 @17665 has 122 MA's), (15, 17791), (22, 17941), (24, 17971), (26, 17995), (36, 18166), (43, 18220), (45, 18274), (48, 18295), (49, 18310), (61, 18403), (62, 18406), (63, 18415), (69, 18472), (77, 18544), (80, 18577), (85, 18637),

Gene: Youngblood\_18 Start: 11013, Stop: 11987, Start Num: 10

Candidate Starts for Youngblood\_18:

(Start: 10 @11013 has 119 MA's), (11, 11022), (12, 11082), (20, 11235), (30, 11331), (32, 11406), (34, 11451), (38, 11493), (40, 11511), (55, 11682), (60, 11712), (64, 11736), (65, 11745), (74, 11844), (77, 11865), (81, 11916),

Gene: Zelink\_32 Start: 18517, Stop: 19521, Start Num: 9

Candidate Starts for Zelink\_32:

(Start: 9 @18517 has 122 MA's), (15, 18643), (22, 18793), (24, 18823), (26, 18847), (36, 19018), (43, 19072), (45, 19126), (48, 19147), (49, 19162), (61, 19255), (62, 19258), (63, 19267), (69, 19324), (77, 19396), (80, 19429), (85, 19489),

Gene: Zilizebeth\_14 Start: 8834, Stop: 9832, Start Num: 9

Candidate Starts for Zilizebeth\_14:

(7, 8795), (Start: 9 @8834 has 122 MA's), (11, 8858), (13, 8924), (14, 8942), (17, 8978), (23, 9113), (26, 9149), (33, 9299), (39, 9353), (41, 9365), (46, 9434), (53, 9509), (56, 9530), (75, 9692), (83, 9785), (86, 9809),

Gene: xkcd\_19 Start: 11038, Stop: 12009, Start Num: 10

Candidate Starts for xkcd\_19:

(Start: 10 @11038 has 119 MA's), (11, 11047), (12, 11107), (20, 11260), (30, 11356), (32, 11431), (34, 11476), (38, 11518), (40, 11536), (55, 11707), (60, 11737), (64, 11761), (65, 11770), (74, 11869), (77, 11890), (81, 11941),