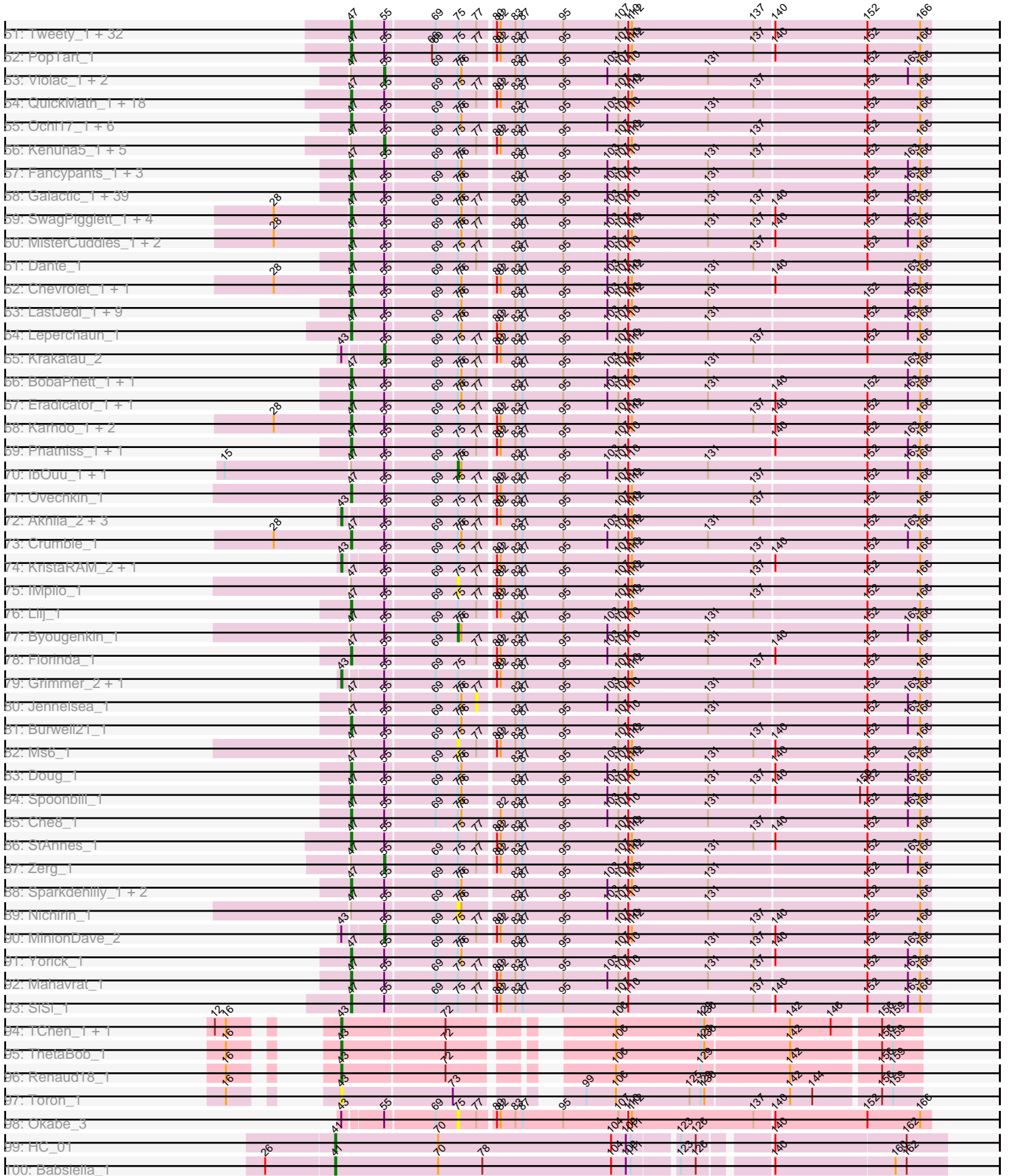
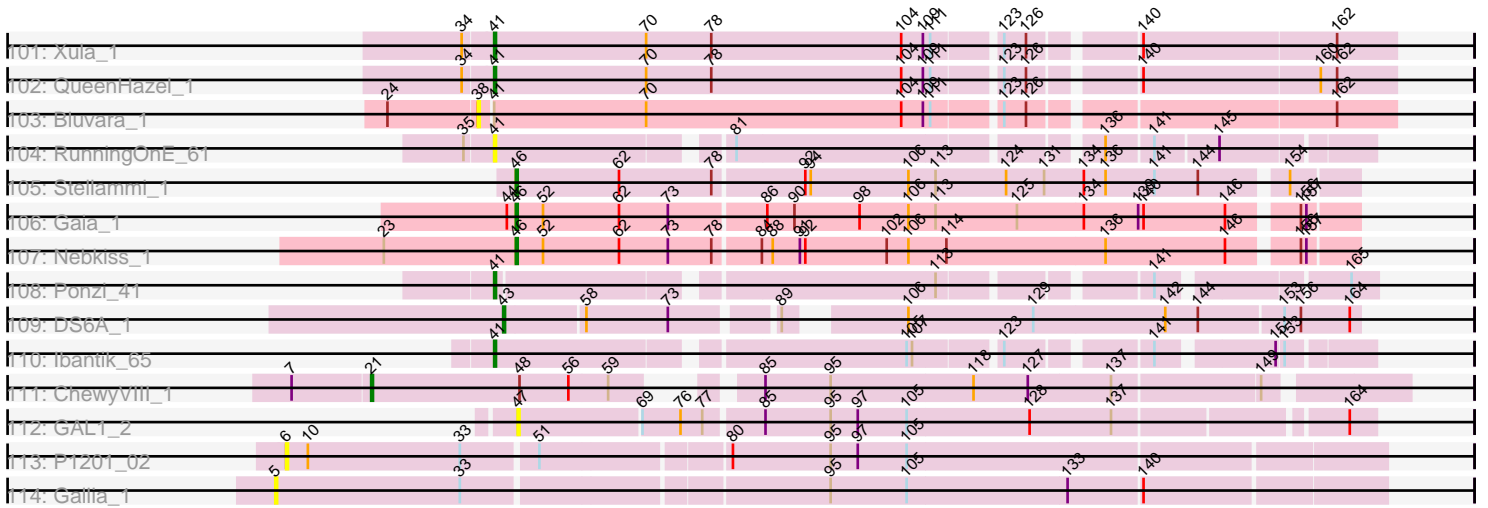


Pham 311147



Pham 311147



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 311147 Report

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

Pham number 311147 has 309 members, 34 are drafts.

Phages represented in each track:

- Track 1 : FF47\_04, Muddy\_4, LongHai\_5, Salvus\_5, 8UZL\_4, Maco6\_2
- Track 2 : JacoRen57\_1
- Track 3 : NoShow\_1
- Track 4 : Farewell\_1
- Track 5 : Sparky\_1
- Track 6 : Spooks\_48
- Track 7 : Bimmel\_46
- Track 8 : Success\_49
- Track 9 : Flapper\_1, Turuncu\_1
- Track 10 : GTE5\_83
- Track 11 : Dalilpop\_1
- Track 12 : GRU1\_84
- Track 13 : Tracker\_1
- Track 14 : GrootJr\_2, NovumRegina\_2, NatB6\_2
- Track 15 : MerCougar\_1
- Track 16 : Buggaboo\_1, SuperSulley\_1
- Track 17 : Kabluna\_1
- Track 18 : NosilaM\_1
- Track 19 : KidneyBean\_1, Arti\_1, Foxboro\_1, Emianna\_1, Wheezy\_1, Kurt\_1, Jifall16\_1, Phomeo\_1
- Track 20 : GTE8\_82
- Track 21 : Commandaria\_1
- Track 22 : Bonum\_1
- Track 23 : Outis\_1, StarStruck\_1
- Track 24 : Ennea\_1, Lollipop1437\_1, Float294\_1, Skysand\_1
- Track 25 : RedRaider\_1
- Track 26 : Patio\_2
- Track 27 : Sukkupi\_1, WhoseManz\_1, NadineRae\_1, Pemberton\_1, HubbaBubba\_1, BiPauneto\_1, Yndexa\_1, Marietta\_1
- Track 28 : IDyn\_2
- Track 29 : HomeFry\_2
- Track 30 : Fury\_1, Pleakley\_1
- Track 31 : Scuba\_1
- Track 32 : CoffeeBean\_1, Braxoaddie\_1, Maselop\_1
- Track 33 : Apiary\_1, Polykyuki\_1
- Track 34 : Gagieri\_1
- Track 35 : MacGully\_1

- Track 36 : Marteena\_1, Jablanski\_1, Posh\_1, BeeGee\_1, Confidence\_1, EMSquaredA\_1, Pollux\_1, Floral\_1, Pytheas\_1, BritBrat\_1, LonelyBoi\_1, EnalisNailo\_1, Bradissa\_1
- Track 37 : Angelique\_1
- Track 38 : Lilas\_1
- Track 39 : Wrigley\_1
- Track 40 : Cashline\_1
- Track 41 : Mabodamaca\_1
- Track 42 : Forester\_1, Gretchen\_1, SuperHands\_1
- Track 43 : Floof\_1
- Track 44 : Percival\_1
- Track 45 : C3PO\_1, PeteyPab\_1, PotatoChip\_1, Darwin\_1, Cruella\_1, Zion\_1
- Track 46 : Kimchi1738\_1
- Track 47 : Stickynote\_1
- Track 48 : WillSterrel\_1, Kersh\_1, Spartacus\_1, IrishSherpFalk\_1
- Track 49 : EmiMonkey\_1, PatoPoderoso\_1, Fastidio\_1
- Track 50 : LilMoolah\_1, Nivrat\_1, ShiLan\_1, Polka14\_1, Jarcob\_1, Philus\_1
- Track 51 : Tweety\_1, Melissauen88\_1, DotProduct\_1, Fruitloop\_1, Zizzle\_1, DeadP\_1, Hamulus\_1, Mantra\_1, SuperGrey\_1, PhesterPhotato\_1, Bipolar\_1, SG4\_1, XFactor\_1, Blexus\_1, GigiOuiOui\_1, Emma\_1, DoRead\_1, Mutaforma13\_1, Aubs\_1, DLane\_1, Clank\_1, Guppsters\_1, Wee\_1, SassyB\_1, PhlipPhlop\_1, ShroomBoi\_1, Chuckly\_1, Phanphagia\_1, Bubbles123\_1, Hades\_1, Gandalph\_1, Royals2015\_1, Shauna1\_1
- Track 52 : PopTart\_1
- Track 53 : Violac\_1, Mwanjiwa\_1, LunaBlu\_1
- Track 54 : QuickMath\_1, Firehouse51\_1, Sandalphon\_1, Rita\_1, Phasih\_1, Taj\_1, Sabbb\_1, KingJulian\_1, MadMen\_1, Ardmore\_1, DillTech15\_1, Rockne\_1, Batiatus\_1, Donkeykong\_1, EleanorGeorge\_1, Filuzino\_1, PMC\_1, Whatsapiecost\_1, Jant\_1
- Track 55 : Ochi17\_1, Seabastian\_1, Llama\_1, AlpineSix\_1, Modragons\_1, OfUltron\_1, Jinglebell\_1
- Track 56 : Kenuha5\_1, Corium\_1, Medindi\_1, Minnie\_1, MulchSalad\_1, Phalconet\_1
- Track 57 : Fancypants\_1, Ibhubesi\_1, Harley\_1, Whouxphf\_1
- Track 58 : Galactic\_1, BodEinwohner17\_1, Nimbo\_1, Scottish\_1, Estave1\_1, KingMidas\_1, Eish\_1, Strokeseat\_1, PHappiness\_1, RedBird\_1, Sassafras\_1, Wachhund\_1, Daenerys\_1, NewHope4\_1, Saal\_1, Dorothy\_1, VRedHorse\_1, JoeyJr\_1, Empress\_1, Radiance\_1, Inventum\_1, Hlubikazi\_1, Latretium\_1, RitaG\_1, Mandlovu\_1, Mattes\_1, Vivum\_1, BlueCrab\_1, Pacc40\_1, Geralt\_1, Doomphist\_1, Enzomatic\_1, Gorge\_1, Polo2Bam\_1, Poenanya\_1, DaddyRickover\_1, SeaLumen\_1, Brocalys\_1, Deb65\_1, OldBen\_1
- Track 59 : SwagPigglett\_1, ByChance\_1, Lizziana\_1, ShowerHandel\_1, Martik\_1
- Track 60 : MisterCuddles\_1, Girr\_1, Ruby\_1
- Track 61 : Dante\_1
- Track 62 : Chevrolet\_1, ArcusAngelus\_1
- Track 63 : LastJedi\_1, FreddyB\_1, Koella\_1, Clifton\_1, NormanBulbieJr\_1, Cheese puff\_1, OlympiaSaint\_1, Pippy\_1, Priscilla\_1, Cabrinians\_1
- Track 64 : Leperchaun\_1
- Track 65 : Krakatau\_2
- Track 66 : BobaPhett\_1, James\_1
- Track 67 : Eradicator\_1, Moonbeam\_1
- Track 68 : Karhdo\_1, Veteran\_1, GUmbie\_1
- Track 69 : Phatniss\_1, Maravista\_1

- Track 70 : IbOuu\_1, Juniper1\_1
- Track 71 : Ovechkin\_1
- Track 72 : Akhila\_2, MilleniumForce\_2, Topiatin\_3, MilanaBonita\_2
- Track 73 : Crumble\_1
- Track 74 : KristaRAM\_2, CaptainTrips\_2
- Track 75 : IMpilo\_1
- Track 76 : Llij\_1
- Track 77 : Byougenkin\_1
- Track 78 : Florinda\_1
- Track 79 : Grimmer\_2, Nitzel\_2
- Track 80 : Jennelsea\_1
- Track 81 : Burwell21\_1
- Track 82 : Ms6\_1
- Track 83 : Doug\_1
- Track 84 : Spoonbill\_1
- Track 85 : Che8\_1
- Track 86 : StAnnes\_1
- Track 87 : Zerg\_1
- Track 88 : Sparkdehlily\_1, TDanisky\_1, DRBy19\_1
- Track 89 : Nichirin\_1
- Track 90 : MinionDave\_2
- Track 91 : Yorick\_1
- Track 92 : Mahavrat\_1
- Track 93 : SiSi\_1
- Track 94 : TChen\_1, LunaStella\_1
- Track 95 : ThetaBob\_1
- Track 96 : Renaud18\_1
- Track 97 : Toron\_1
- Track 98 : Okabe\_3
- Track 99 : HC\_01
- Track 100 : Babsiella\_1
- Track 101 : Xula\_1
- Track 102 : QueenHazel\_1
- Track 103 : Bluvara\_1
- Track 104 : RunningOnE\_61
- Track 105 : Stellammi\_1
- Track 106 : Gaia\_1
- Track 107 : Nebkiss\_1
- Track 108 : Ponzi\_41
- Track 109 : DS6A\_1
- Track 110 : Ibantik\_65
- Track 111 : ChewyVIII\_1
- Track 112 : GAL1\_2
- Track 113 : P1201\_02
- Track 114 : Gallia\_1

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

The start number called the most often in the published annotations is 47, it was called in 154 of the 275 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AlpineSix\_1, ArcusAngelus\_1, Ardmore\_1, Aubs\_1, Batiatus\_1, Bipolar\_1, Blexus\_1, BlueCrab\_1, BobaPhett\_1, BodEinwohner17\_1, Brocalys\_1, Bubbles123\_1, Burwell21\_1, ByChance\_1, Cabrinians\_1, Che8\_1, CheesePuff\_1, Chevrolet\_1, Chuckly\_1, Clank\_1, Clifton\_1, Crumble\_1, DLane\_1, DRBy19\_1, DaddyRickover\_1, Daenerys\_1, Dante\_1, DeadP\_1, Deb65\_1, DillTech15\_1, DoRead\_1, Donkeykong\_1, Doomphist\_1, Dorothy\_1, DotProduct\_1, Doug\_1, Eish\_1, EleanorGeorge\_1, Emma\_1, Empress\_1, Enzomatic\_1, Eradicator\_1, Estave1\_1, Fancypants\_1, Filuzino\_1, Firehouse51\_1, Florinda\_1, FreddyB\_1, Fruitloop\_1, GAL1\_2, GUmbie\_1, Galactic\_1, Gandolph\_1, Geralt\_1, GigiOuiOui\_1, Girr\_1, Gorge\_1, Guppsters\_1, Hades\_1, Hamulus\_1, Harley\_1, Hlubikazi\_1, Ibhubesi\_1, Inventum\_1, IrishSherpFalk\_1, James\_1, Jant\_1, Jarcob\_1, Jinglebell\_1, JoeyJr\_1, Karhdo\_1, Kersh\_1, KingJulian\_1, KingMidas\_1, Koella\_1, LastJedi\_1, Latretium\_1, Leperchaun\_1, LilMoolah\_1, Lizziana\_1, Llama\_1, Llij\_1, MadMen\_1, Mahavrat\_1, Mandlovu\_1, Mantra\_1, Maravista\_1, Martik\_1, Mattes\_1, Melissauren88\_1, MisterCuddles\_1, Modragons\_1, Moonbeam\_1, Mutaforma13\_1, NewHope4\_1, Nimbo\_1, Nivrat\_1, NormanBulbieJr\_1, Ochi17\_1, OfUltron\_1, OldBen\_1, OlympiaSaint\_1, Ovechkin\_1, PHappiness\_1, PMC\_1, Pacc40\_1, Phanphagia\_1, Phasih\_1, Phatniss\_1, PhesterPotato\_1, Philus\_1, PhilipPhlop\_1, Pippy\_1, Poenanya\_1, Polka14\_1, Polo2Bam\_1, PopTart\_1, Priscilla\_1, QuickMath\_1, Radiance\_1, RedBird\_1, RitaG\_1, Rita\_1, Rockne\_1, Royals2015\_1, Ruby\_1, SG4\_1, Saal\_1, Sabbb\_1, Sandalphon\_1, Sassafras\_1, SassyB\_1, Scottish\_1, SeaLumen\_1, Seabastian\_1, Shauna1\_1, ShiLan\_1, ShowerHandel\_1, ShroomBoi\_1, SiSi\_1, Sparkdehlily\_1, Spartacus\_1, Spoonbill\_1, StAnnes\_1, Strokeseat\_1, SuperGrey\_1, SwagPiggett\_1, TDanisky\_1, Taj\_1, Tweety\_1, VRedHorse\_1, Veteran\_1, Vivum\_1, Wachhund\_1, Wee\_1, Whatsapiecost\_1, Whouxphf\_1, WillSterrel\_1, XFactor\_1, Yorick\_1, Zizzle\_1,

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

- Byougenkin\_1, Corium\_1, EmiMonkey\_1, Fastidio\_1, IMpilo\_1, IbOuu\_1, Jennelsea\_1, Juniper1\_1, Kenuha5\_1, LunaBlu\_1, Medindi\_1, Minnie\_1, Ms6\_1, MulchSalad\_1, Mwanjiwa\_1, Nichirin\_1, PatoPoderoso\_1, Phalconet\_1, Violac\_1, Zerg\_1,

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

- 8UZL\_4, Akhila\_2, Angelique\_1, Apiary\_1, Arti\_1, Babsiella\_1, BeeGee\_1, BiPauneto\_1, Bimmel\_46, Bluvara\_1, Bonum\_1, Bradissa\_1, Braxoaddie\_1, BritBrat\_1, Buggaboo\_1, C3PO\_1, CaptainTrips\_2, Cashline\_1, ChewyVIII\_1, CoffeeBean\_1, Commandaria\_1, Confidence\_1, Cruella\_1, DS6A\_1, Dalilpop\_1, Darwin\_1, EMSquaredA\_1, Emianna\_1, EnalisNailo\_1, Ennea\_1, FF47\_04, Farewell\_1, Flapper\_1, Float294\_1, Floof\_1, Floral\_1, Forester\_1, Foxboro\_1, Fury\_1, GRU1\_84, GTE5\_83, GTE8\_82, Gagieri\_1, Gaia\_1, Gallia\_1, Gretchen\_1, Grimmer\_2, GrootJr\_2, HC\_01, HomeFry\_2, HubbaBubba\_1, IDyn\_2, Ibantik\_65, Jablanski\_1, JacoRen57\_1, Jifall16\_1, Kabluna\_1, KidneyBean\_1, Kimchi1738\_1, Krakatau\_2, KristaRAM\_2, Kurt\_1, Lilas\_1, Lollipop1437\_1, LonelyBoi\_1, LongHai\_5, LunaStella\_1, Mabodamaca\_1, MacGully\_1, Maco6\_2, Marietta\_1, Marteenaa\_1, Maselop\_1, MerCougar\_1, MilanaBonita\_2, MilleniumForce\_2, MinionDave\_2, Muddy\_4, NadineRae\_1, NatB6\_2, Nebkiss\_1, Nitzel\_2, NoShow\_1, NosilaM\_1, NovumRegina\_2, Okabe\_3, Outis\_1, P1201\_02, Patio\_2, Pemberton\_1, Percival\_1, PeteyPab\_1, Phomeo\_1, Pleakley\_1, Pollux\_1, Polyyuki\_1, Ponzi\_41, Posh\_1, PotatoChip\_1, Pytheas\_1, QueenHazel\_1, RedRaider\_1, Renaud18\_1, RunningOnE\_61, Salvus\_5, Scuba\_1, Skysand\_1, Sparky\_1, Spooks\_48,

StarStruck\_1, Stellammi\_1, Stickynote\_1, Success\_49, Sukkupi\_1, SuperHands\_1, SuperSulley\_1, TChen\_1, ThetaBob\_1, Topiatin\_3, Toron\_1, Tracker\_1, Turuncu\_1, Wheezy\_1, WhoseManz\_1, Wrigley\_1, Xula\_1, Yndexa\_1, Zion\_1,

### Summary by start number:

#### Start 5:

- Found in 1 of 309 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gallia\_1 (singleton),

#### Start 6:

- Found in 1 of 309 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P1201\_02 (singleton),

#### Start 13:

- Found in 3 of 309 ( 1.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: GTE5\_83 (CR1),

#### Start 19:

- Found in 7 of 309 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 7 of 275
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary\_1 (CR6), Braxoaddie\_1 (CR6), CoffeeBean\_1 (CR6), Farewell\_1 (AF), MacGully\_1 (CR7), Maselop\_1 (CR6), Polyyuki\_1 (CR6),

#### Start 21:

- Found in 45 of 309 ( 14.6% ) of genes in pham
- Manual Annotations of this start: 40 of 275
- Called 97.8% of time when present
- Phage (with cluster) where this start called: Arti\_1 (CR2), BiPauneto\_1 (CR4), Buggaboo\_1 (CR2), ChewyVIII\_1 (singleton), Commandaria\_1 (CR2), Dalilpop\_1 (CR1), Emianna\_1 (CR2), Ennea\_1 (CR3), Flapper\_1 (CR1), Float294\_1 (CR3), Foxboro\_1 (CR2), Fury\_1 (CR5), GRU1\_84 (CR1), GTE8\_82 (CR2), GrootJr\_2 (CR2), HomeFry\_2 (CR5), HubbaBubba\_1 (CR4), IDyn\_2 (CR4), Jifall16\_1 (CR2), KidneyBean\_1 (CR2), Kurt\_1 (CR2), Lollipop1437\_1 (CR3), Marietta\_1 (CR4), MerCougar\_1 (CR2), NadineRae\_1 (CR4), NatB6\_2 (CR2), NosilaM\_1 (CR2), NovumRegina\_2 (CR2), Outis\_1 (CR2), Patio\_2 (CR3), Pemberton\_1 (CR4), Phomeo\_1 (CR2), Pleakley\_1 (CR5), RedRaider\_1 (CR3), Scuba\_1 (CR5), Skysand\_1 (CR3), StarStruck\_1 (CR2), Sukkupi\_1 (CR4), SuperSulley\_1 (CR2), Tracker\_1 (CR2), Turuncu\_1 (CR1), Wheezy\_1 (CR2), WhoseManz\_1 (CR4), Yndexa\_1 (CR4),

#### Start 22:

- Found in 2 of 309 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 275
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Bonum\_1 (CR2),

Start 25:

- Found in 1 of 309 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 275
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gagieri\_1 (CR6),

Start 27:

- Found in 8 of 309 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 8 of 275
- Called 100.0% of time when present
- Phage (with cluster) where this start called: C3PO\_1 (EN), Cruella\_1 (EN), Darwin\_1 (EN), Kimchi1738\_1 (EN), PeteyPab\_1 (EN), PotatoChip\_1 (EN), Stickynote\_1 (EN), Zion\_1 (EN),

Start 28:

- Found in 15 of 309 ( 4.9% ) of genes in pham
- Manual Annotations of this start: 1 of 275
- Called 6.7% of time when present
- Phage (with cluster) where this start called: NoShow\_1 (AB),

Start 32:

- Found in 6 of 309 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 5 of 275
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Floof\_1 (EH), Forester\_1 (EH), Gretchen\_1 (EH), Percival\_1 (EH), SuperHands\_1 (EH),

Start 38:

- Found in 1 of 309 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bluvara\_1 (I3),

Start 40:

- Found in 17 of 309 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 1 of 275
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Lilas\_1 (CY1),

Start 41:

- Found in 11 of 309 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 9 of 275
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Babsiella\_1 (I1), Bimmel\_46 (BT), HC\_01 (I1), Ibantik\_65 (singleton), Ponzi\_41 (singleton), QueenHazel\_1 (I1), RunningOnE\_61 (UNK), Spooks\_48 (BT), Success\_49 (BT), Xula\_1 (I1),

Start 42:

- Found in 8 of 309 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 4 of 275
- Called 100.0% of time when present

- Phage (with cluster) where this start called: 8UZL\_4 (AB), FF47\_04 (AB), JacoRen57\_1 (AB), LongHai\_5 (AB), Mabodamaca\_1 (EH), Maco6\_2 (AB), Muddy\_4 (AB), Salvus\_5 (AB),

#### Start 43:

- Found in 42 of 309 ( 13.6% ) of genes in pham
- Manual Annotations of this start: 28 of 275
- Called 73.8% of time when present
- Phage (with cluster) where this start called: Akhila\_2 (F1), Angelique\_1 (CY1), BeeGee\_1 (CY5), Bradissa\_1 (CY1), BritBrat\_1 (CY2), CaptainTrips\_2 (F1), Cashline\_1 (CY6), Confidence\_1 (CY1), DS6A\_1 (singleton), EMSquaredA\_1 (CY1), EnalisNailo\_1 (CY1), Floral\_1 (CY1), Grimmer\_2 (F1), Jablanski\_1 (CY3), KristaRAM\_2 (F1), LonelyBoi\_1 (CY7), LunaStella\_1 (F4), Marteena\_1 (CY1), MilanaBonita\_2 (F1), MilleniumForce\_2 (F1), Nitzel\_2 (F1), Pollux\_1 (CY1), Posh\_1 (CY4), Pytheas\_1 (CY3), Renaud18\_1 (F4), Sparky\_1 (AF), TChen\_1 (F4), ThetaBob\_1 (F4), Topiatin\_3 (F1), Toron\_1 (F6), Wrigley\_1 (CY4),

#### Start 46:

- Found in 3 of 309 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 3 of 275
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia\_1 (X), Nebkiss\_1 (X), Stellammi\_1 (UNK),

#### Start 47:

- Found in 181 of 309 ( 58.6% ) of genes in pham
- Manual Annotations of this start: 154 of 275
- Called 89.0% of time when present
- Phage (with cluster) where this start called: AlpineSix\_1 (F1), ArcusAngelus\_1 (F1), Ardmore\_1 (F1), Aubs\_1 (F1), Batiatus\_1 (F1), Bipolar\_1 (F1), Blexus\_1 (F1), BlueCrab\_1 (F1), BobaPhett\_1 (F1), BodEinwohner17\_1 (F1), Brocalys\_1 (F1), Bubbles123\_1 (F1), Burwell21\_1 (F1), ByChance\_1 (F1), Cabrinians\_1 (F1), Che8\_1 (F1), Cheesepuff\_1 (F1), Chevrolet\_1 (F1), Chuckly\_1 (F1), Clank\_1 (F), Clifton\_1 (F1), Crumble\_1 (F1), DLane\_1 (F1), DRBy19\_1 (F1), DaddyRickover\_1 (F1), Daenerys\_1 (F1), Dante\_1 (F1), DeadP\_1 (F1), Deb65\_1 (F1), DillTech15\_1 (F1), DoRead\_1 (F1), Donkeykong\_1 (F1), Doomphist\_1 (F1), Dorothy\_1 (F1), DotProduct\_1 (F1), Doug\_1 (F1), Eish\_1 (F1), EleanorGeorge\_1 (F1), Emma\_1 (F1), Empress\_1 (F1), Enzomatic\_1 (F1), Eradicator\_1 (F1), Estave1\_1 (F1), Fancypants\_1 (F1), Filuzino\_1 (F1), Firehouse51\_1 (F1), Florinda\_1 (F1), FreddyB\_1 (F1), Fruitloop\_1 (F1), GAL1\_2 (singleton), GUmbie\_1 (F1), Galactic\_1 (F1), Gandalph\_1 (F1), Geralt\_1 (F1), GigiOuiOui\_1 (F1), Girr\_1 (F1), Gorge\_1 (F1), Guppsters\_1 (F1), Hades\_1 (F1), Hamulus\_1 (F1), Harley\_1 (F1), Hlubikazi\_1 (F1), Ibhuesi\_1 (F1), Inventum\_1 (F1), IrishSherpFalk\_1 (F1), James\_1 (F1), Jant\_1 (F1), Jarcob\_1 (F1), Jinglebell\_1 (F1), JoeyJr\_1 (F1), Karhdo\_1 (F1), Kersh\_1 (F1), KingJulian\_1 (F1), KingMidas\_1 (F1), Koella\_1 (F1), LastJedi\_1 (F1), Latretium\_1 (F1), Leperchaun\_1 (F1), LilMoolah\_1 (F1), Lizziana\_1 (F1), Llama\_1 (F1), Llij\_1 (F1), MadMen\_1 (F1), Mahavrat\_1 (F1), Mandlovu\_1 (F1), Mantra\_1 (F1), Maravista\_1 (F1), Martik\_1 (F1), Mattes\_1 (F1), Melissauren88\_1 (F1), MisterCuddles\_1 (F1), Modragons\_1 (F1), Moonbeam\_1 (F1), Mutaforma13\_1 (F1), NewHope4\_1 (F1), Nimbo\_1 (F1), Nivrat\_1 (F1), NormanBulbieJr\_1 (F1), Ochi17\_1 (F1), OfUltron\_1 (F1), OldBen\_1 (F1), OlympiaSaint\_1 (F1), Ovechkin\_1 (F1), PHappiness\_1 (F1), PMC\_1 (F1), Pacc40\_1 (F1), Phanphagia\_1 (F1), Phasih\_1 (F1), Phatniss\_1 (F1), PhesterPhotato\_1 (F1), Philus\_1 (F1), PhlipPhlop\_1 (F1), Pippy\_1

(F1), Poenanya\_1 (F1), Polka14\_1 (F1), Polo2Bam\_1 (F1), PopTart\_1 (F1), Priscilla\_1 (F1), QuickMath\_1 (F1), Radiance\_1 (F1), RedBird\_1 (F1), RitaG\_1 (F1), Rita\_1 (F1), Rockne\_1 (F1), Royals2015\_1 (F1), Ruby\_1 (F1), SG4\_1 (F1), Saal\_1 (F1), Sabbb\_1 (F1), Sandalphon\_1 (F1), Sassafras\_1 (F1), SassyB\_1 (F1), Scottish\_1 (F1), SeaLumen\_1 (F1), Seabastian\_1 (F1), Shauna1\_1 (F1), ShiLan\_1 (F1), ShowerHandel\_1 (F1), ShroomBoi\_1 (F1), SiSi\_1 (F1), Sparkdehlily\_1 (F1), Spartacus\_1 (F1), Spoonbill\_1 (F1), StAnnes\_1 (F1), Strokeseat\_1 (F1), SuperGrey\_1 (F1), SwagPiggett\_1 (F1), TDanisky\_1 (F1), Taj\_1 (F1), Tweety\_1 (F1), VRedHorse\_1 (F1), Veteran\_1 (F1), Vivum\_1 (F1), Wachhund\_1 (F1), Wee\_1 (F1), Whatsapiecost\_1 (F1), Whouxphf\_1 (F1), WillSterrel\_1 (F1), XFactor\_1 (F1), Yorick\_1 (F1), Zizzle\_1 (F1),

#### Start 55:

- Found in 191 of 309 ( 61.8% ) of genes in pham
- Manual Annotations of this start: 9 of 275
- Called 7.9% of time when present
- Phage (with cluster) where this start called: Corium\_1 (F1), EmiMonkey\_1 (F1), Fastidio\_1 (F1), Kenuha5\_1 (F1), Krakatau\_2 (F1), LunaBlu\_1 (F1), Medindi\_1 (F1), MinionDave\_2 (F1), Minnie\_1 (F1), MulchSalad\_1 (F7), Mwanjiwa\_1 (F1), PatoPoderoso\_1 (F1), Phalconet\_1 (F1), Violac\_1 (F1), Zerg\_1 (F1),

#### Start 59:

- Found in 3 of 309 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 275
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Kabluna\_1 (CR2),

#### Start 75:

- Found in 190 of 309 ( 61.5% ) of genes in pham
- Manual Annotations of this start: 3 of 275
- Called 3.7% of time when present
- Phage (with cluster) where this start called: Byougenkin\_1 (F1), IMpilo\_1 (F1), IbOuu\_1 (F1), Juniper1\_1 (F1), Ms6\_1 (F1), Nichirin\_1 (F1), Okabe\_3 (F8),

#### Start 77:

- Found in 111 of 309 ( 35.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.9% of time when present
- Phage (with cluster) where this start called: Jennelsea\_1 (F1),

### Summary by clusters:

There are 30 clusters represented in this pham: singleton, F4, BT, AB, AF, EH, F, I1, I3, CY4, CY3, CY2, CY1, EN, CY7, CY6, CY5, CR3, X, UNK, CR7, CR2, F1, CR1, CR6, F6, CR4, CR5, F8, F7,

#### Info for manual annotations of cluster AB:

- Start number 28 was manually annotated 1 time for cluster AB.
- Start number 42 was manually annotated 3 times for cluster AB.

#### Info for manual annotations of cluster AF:

- Start number 19 was manually annotated 1 time for cluster AF.
- Start number 43 was manually annotated 1 time for cluster AF.

Info for manual annotations of cluster BT:

- Start number 41 was manually annotated 3 times for cluster BT.

Info for manual annotations of cluster CR1:

- Start number 21 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 21 was manually annotated 19 times for cluster CR2.
- Start number 22 was manually annotated 1 time for cluster CR2.
- Start number 59 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 21 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 21 was manually annotated 8 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 21 was manually annotated 3 times for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 19 was manually annotated 5 times for cluster CR6.
- Start number 25 was manually annotated 1 time for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 19 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CY1:

- Start number 40 was manually annotated 1 time for cluster CY1.
- Start number 43 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 43 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 43 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 43 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 43 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

- Start number 43 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 43 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster EH:

- Start number 32 was manually annotated 5 times for cluster EH.
- Start number 42 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster EN:

- Start number 27 was manually annotated 8 times for cluster EN.

Info for manual annotations of cluster F1:

- Start number 43 was manually annotated 6 times for cluster F1.
- Start number 47 was manually annotated 154 times for cluster F1.
- Start number 55 was manually annotated 9 times for cluster F1.
- Start number 75 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 43 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster I1:

- Start number 41 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster UNK:

- Start number 46 was manually annotated 1 time for cluster UNK.

Info for manual annotations of cluster X:

- Start number 46 was manually annotated 2 times for cluster X.

### ***Gene Information:***

Gene: 8UZL\_4 Start: 1322, Stop: 1795, Start Num: 42

Candidate Starts for 8UZL\_4:

(29, 1274), (Start: 42 @1322 has 4 MA's), (60, 1385), (62, 1388), (74, 1418), (97, 1520), (156, 1745), (165, 1766), (169, 1775),

Gene: Akhila\_2 Start: 754, Stop: 1212, Start Num: 43

Candidate Starts for Akhila\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (152, 1162), (166, 1204),

Gene: AlpineSix\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for AlpineSix\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: Angelique\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Angelique\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (146, 436), (156, 472), (159, 481),

Gene: Apiary\_1 Start: 110, Stop: 667, Start Num: 19

Candidate Starts for Apiary\_1:

(Start: 19 @110 has 7 MA's), (37, 161), (49, 188), (56, 212), (64, 245), (95, 326), (100, 353), (121, 413), (168, 608),

Gene: ArcusAngelus\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for ArcusAngelus\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (140, 440), (163, 548), (166, 557),

Gene: Ardmore\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Ardmore\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Arti\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Arti\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: Aubs\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Aubs\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Babsiella\_1 Start: 67, Stop: 540, Start Num: 41

Candidate Starts for Babsiella\_1:

(26, 16), (Start: 41 @67 has 9 MA's), (70, 151), (78, 187), (104, 292), (109, 304), (111, 307), (123, 340), (126, 352), (140, 403), (160, 499), (162, 508),

Gene: Batiatus\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Batiatus\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: BeeGee\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for BeeGee\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: BiPauneto\_1 Start: 159, Stop: 710, Start Num: 21

Candidate Starts for BiPauneto\_1:

(Start: 21 @159 has 40 MA's), (54, 258), (95, 387), (115, 453), (121, 474), (137, 540), (172, 702),

Gene: Bimmel\_46 Start: 24939, Stop: 25364, Start Num: 41

Candidate Starts for Bimmel\_46:

(Start: 41 @24939 has 9 MA's), (57, 24984), (62, 25005), (111, 25158), (123, 25191), (141, 25260), (154, 25320), (156, 25326),

Gene: Bipolar\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Bipolar\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Blexus\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Blexus\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: BlueCrab\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for BlueCrab\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Bluvara\_1 Start: 62, Stop: 541, Start Num: 38

Candidate Starts for Bluvara\_1:

(24, 14), (38, 62), (Start: 41 @68 has 9 MA's), (70, 152), (104, 293), (109, 305), (111, 308), (123, 341), (126, 353), (162, 509),

Gene: BobaPhett\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for BobaPhett\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (163, 547), (166, 556),

Gene: BodEinwohner17\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for BodEinwohner17\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Bonum\_1 Start: 160, Stop: 708, Start Num: 22

Candidate Starts for Bonum\_1:

(10, 124), (Start: 22 @160 has 1 MA's), (45, 235), (Start: 59 @289 has 1 MA's), (87, 355), (95, 388), (113, 445), (115, 454), (119, 469), (121, 475), (137, 541), (172, 700),

Gene: Bradissa\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Bradissa\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Braxoaddie\_1 Start: 110, Stop: 667, Start Num: 19

Candidate Starts for Braxoaddie\_1:

(Start: 19 @110 has 7 MA's), (37, 161), (49, 188), (50, 191), (56, 212), (64, 245), (95, 326), (100, 353), (121, 413), (168, 608),

Gene: BritBrat\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for BritBrat\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Brocalys\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Brocalys\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Bubbles123\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Bubbles123\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Buggaboo\_1 Start: 157, Stop: 702, Start Num: 21

Candidate Starts for Buggaboo\_1:

(Start: 21 @157 has 40 MA's), (56, 265), (95, 382), (115, 448), (121, 469), (137, 535), (172, 694),

Gene: Burwell21\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Burwell21\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: ByChance\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for ByChance\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: Byougenkin\_1 Start: 193, Stop: 564, Start Num: 75

Candidate Starts for Byougenkin\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: C3PO\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for C3PO\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (121, 403), (135, 460),

Gene: Cabrinians\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Cabrinians\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: CaptainTrips\_2 Start: 754, Stop: 1212, Start Num: 43

Candidate Starts for CaptainTrips\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (140, 1087), (152, 1162), (166, 1204),

Gene: Cashline\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Cashline\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (101, 250), (106, 265), (125, 325), (136, 370), (146, 436), (156, 472), (159, 481),

Gene: Che8\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Che8\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (82, 222), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Cheese puff\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Cheese puff\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Chevrolet\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Chevrolet\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (140, 440), (163, 548), (166, 557),

Gene: ChewyVIII\_1 Start: 141, Stop: 653, Start Num: 21

Candidate Starts for ChewyVIII\_1:

(7, 99), (Start: 21 @141 has 40 MA's), (48, 222), (56, 249), (Start: 59 @270 has 1 MA's), (85, 315), (95, 351), (118, 429), (127, 459), (137, 504), (149, 582),

Gene: Chuckly\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Chuckly\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Clank\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Clank\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Clifton\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Clifton\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: CoffeeBean\_1 Start: 110, Stop: 667, Start Num: 19

Candidate Starts for CoffeeBean\_1:

(Start: 19 @110 has 7 MA's), (37, 161), (49, 188), (50, 191), (56, 212), (64, 245), (95, 326), (100, 353), (121, 413), (168, 608),

Gene: Commandaria\_1 Start: 158, Stop: 700, Start Num: 21

Candidate Starts for Commandaria\_1:

(Start: 21 @158 has 40 MA's), (56, 266), (95, 383), (116, 452), (121, 470), (137, 536), (172, 692),

Gene: Confidence\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Confidence\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Corium\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for Corium\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Cruella\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for Cruella\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (121, 403), (135, 460),

Gene: Crumble\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Crumble\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (152, 515), (163, 548), (166, 557),

Gene: DLane\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for DLane\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: DRBy19\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for DRBy19\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (152, 515), (166, 557),

Gene: DS6A\_1 Start: 246, Stop: 680, Start Num: 43

Candidate Starts for DS6A\_1:

(Start: 43 @246 has 28 MA's), (58, 288), (73, 333), (89, 384), (106, 435), (129, 504), (142, 576), (144, 594), (153, 639), (156, 648), (164, 675),

Gene: DaddyRickover\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for DaddyRickover\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Daenerys\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Daenerys\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Dalilpop\_1 Start: 122, Stop: 685, Start Num: 21

Candidate Starts for Dalilpop\_1:

(Start: 21 @122 has 40 MA's), (74, 278), (95, 359), (113, 416), (115, 425), (121, 446), (137, 512), (170, 656),

Gene: Dante\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Dante\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (137, 424), (152, 514), (166, 556),

Gene: Darwin\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for Darwin\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (121, 403), (135, 460),

Gene: DeadP\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for DeadP\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Deb65\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Deb65\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: DillTech15\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for DillTech15\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: DoRead\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for DoRead\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Donkeykong\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Donkeykong\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Doomphist\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Doomphist\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Dorothy\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Dorothy\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: DotProduct\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for DotProduct\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (140, 440), (152, 515), (166, 557),

Gene: Doug\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Doug\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (140, 439), (152, 514), (163, 547), (166, 556),

Gene: EMsquaredA\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for EMsquaredA\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Eish\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Eish\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: EleanorGeorge\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for EleanorGeorge\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: EmiMonkey\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for EmiMonkey\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Emianna\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Emianna\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: Emma\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Emma\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Empress\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Empress\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: EnalisNailo\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for EnalisNailo\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Ennea\_1 Start: 121, Stop: 687, Start Num: 21

Candidate Starts for Ennea\_1:

(Start: 21 @121 has 40 MA's), (Start: 43 @187 has 28 MA's), (74, 277), (79, 301), (95, 361), (113, 418), (115, 427), (121, 448), (137, 514), (171, 676), (172, 679),

Gene: Enzomatic\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Enzomatic\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Eradicator\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Eradicator\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (140, 439), (152, 514), (163, 547), (166, 556),

Gene: Estave1\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Estave1\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: FF47\_04 Start: 1302, Stop: 1775, Start Num: 42

Candidate Starts for FF47\_04:

(29, 1254), (Start: 42 @1302 has 4 MA's), (60, 1365), (62, 1368), (74, 1398), (97, 1500), (156, 1725), (165, 1746), (169, 1755),

Gene: Fancypants\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Fancypants\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (137, 424), (152, 514), (163, 547), (166, 556),

Gene: Farewell\_1 Start: 34, Stop: 528, Start Num: 19

Candidate Starts for Farewell\_1:

(Start: 19 @34 has 7 MA's), (31, 73), (Start: 43 @97 has 28 MA's), (78, 208), (106, 280), (139, 406), (142, 421), (156, 496),

Gene: Fastidio\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for Fastidio\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137,

424), (140, 439), (152, 514), (166, 556),

Gene: Filuzino\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Filuzino\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (152, 515), (166, 557),

Gene: Firehouse51\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Firehouse51\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Flapper\_1 Start: 122, Stop: 685, Start Num: 21

Candidate Starts for Flapper\_1:

(Start: 21 @122 has 40 MA's), (74, 278), (95, 359), (113, 416), (115, 425), (121, 446), (137, 512),

Gene: Float294\_1 Start: 121, Stop: 687, Start Num: 21

Candidate Starts for Float294\_1:

(Start: 21 @121 has 40 MA's), (Start: 43 @187 has 28 MA's), (74, 277), (79, 301), (95, 361), (113, 418), (115, 427), (121, 448), (137, 514), (171, 676), (172, 679),

Gene: Floof\_1 Start: 122, Stop: 601, Start Num: 32

Candidate Starts for Floof\_1:

(Start: 32 @122 has 5 MA's), (61, 200), (108, 350), (117, 371), (137, 446), (158, 545),

Gene: Floral\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Floral\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Florinda\_1 Start: 106, Stop: 561, Start Num: 47

Candidate Starts for Florinda\_1:

(Start: 47 @106 has 154 MA's), (Start: 55 @133 has 9 MA's), (69, 172), (77, 205), (80, 217), (82, 220), (83, 232), (87, 238), (95, 271), (103, 307), (107, 316), (110, 322), (131, 385), (140, 436), (152, 511), (166, 553),

Gene: Forester\_1 Start: 128, Stop: 607, Start Num: 32

Candidate Starts for Forester\_1:

(Start: 32 @128 has 5 MA's), (108, 356), (117, 377), (137, 452), (148, 515), (158, 551),

Gene: Foxboro\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Foxboro\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: FreddyB\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for FreddyB\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Fruitloop\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Fruitloop\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Fury\_1 Start: 122, Stop: 679, Start Num: 21

Candidate Starts for Fury\_1:

(Start: 21 @122 has 40 MA's), (87, 317), (95, 350), (113, 407), (121, 437), (133, 479), (135, 494), (137, 503), (172, 671),

Gene: GAL1\_2 Start: 720, Stop: 1169, Start Num: 47

Candidate Starts for GAL1\_2:

(Start: 47 @720 has 154 MA's), (69, 786), (76, 807), (77, 819), (85, 849), (95, 885), (97, 900), (105, 927), (128, 993), (137, 1038), (164, 1155),

Gene: GRU1\_84 Start: 59190, Stop: 59753, Start Num: 21

Candidate Starts for GRU1\_84:

(Start: 21 @59190 has 40 MA's), (71, 59337), (74, 59346), (95, 59427), (113, 59484), (115, 59493), (121, 59514), (137, 59580), (170, 59724),

Gene: GTE5\_83 Start: 60179, Stop: 60772, Start Num: 13

Candidate Starts for GTE5\_83:

(1, 60035), (13, 60179), (18, 60203), (Start: 21 @60206 has 40 MA's), (74, 60365), (95, 60446), (113, 60503), (115, 60512), (121, 60533), (137, 60599),

Gene: GTE8\_82 Start: 60392, Stop: 60949, Start Num: 21

Candidate Starts for GTE8\_82:

(2, 60236), (13, 60365), (Start: 21 @60392 has 40 MA's), (74, 60551), (87, 60596), (95, 60629), (115, 60695), (119, 60710), (121, 60716), (137, 60782), (172, 60941),

Gene: GUmbie\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for GUmbie\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (140, 440), (152, 515), (166, 557),

Gene: Gagieri\_1 Start: 112, Stop: 669, Start Num: 25

Candidate Starts for Gagieri\_1:

(Start: 25 @112 has 1 MA's), (37, 160), (49, 187), (56, 211), (85, 289), (95, 325), (100, 352), (121, 412), (167, 607),

Gene: Gaia\_1 Start: 129, Stop: 578, Start Num: 46

Candidate Starts for Gaia\_1:

(44, 126), (Start: 46 @129 has 3 MA's), (52, 144), (62, 186), (73, 213), (86, 264), (90, 279), (98, 315), (106, 342), (113, 357), (125, 402), (134, 438), (139, 468), (140, 471), (146, 516), (156, 549), (157, 552),

Gene: Galactic\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Galactic\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Gallia\_1 Start: 180, Stop: 767, Start Num: 5  
Candidate Starts for Gallia\_1:  
(5, 180), (33, 282), (95, 471), (105, 513), (133, 600), (140, 639),

Gene: Gandalph\_1 Start: 109, Stop: 564, Start Num: 47  
Candidate Starts for Gandalph\_1:  
(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's),  
(77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137,  
424), (140, 439), (152, 514), (166, 556),

Gene: Geralt\_1 Start: 108, Stop: 563, Start Num: 47  
Candidate Starts for Geralt\_1:  
(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's),  
(76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513),  
(163, 546), (166, 555),

Gene: GigiOuiOui\_1 Start: 109, Stop: 564, Start Num: 47  
Candidate Starts for GigiOuiOui\_1:  
(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's),  
(77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137,  
424), (140, 439), (152, 514), (166, 556),

Gene: Girr\_1 Start: 110, Stop: 565, Start Num: 47  
Candidate Starts for Girr\_1:  
(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176),  
(Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107,  
320), (110, 326), (112, 329), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: Gorge\_1 Start: 109, Stop: 564, Start Num: 47  
Candidate Starts for Gorge\_1:  
(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's),  
(76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514),  
(163, 547), (166, 556),

Gene: Gretchen\_1 Start: 128, Stop: 607, Start Num: 32  
Candidate Starts for Gretchen\_1:  
(Start: 32 @128 has 5 MA's), (108, 356), (117, 377), (137, 452), (148, 515), (158, 551),

Gene: Grimmer\_2 Start: 754, Stop: 1212, Start Num: 43  
Candidate Starts for Grimmer\_2:  
(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's),  
(80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072),  
(152, 1162), (166, 1204),

Gene: GrootJr\_2 Start: 773, Stop: 1330, Start Num: 21  
Candidate Starts for GrootJr\_2:  
(Start: 21 @773 has 40 MA's), (74, 932), (87, 977), (95, 1010), (115, 1076), (121, 1097), (137, 1163),  
(172, 1322),

Gene: Guppsters\_1 Start: 109, Stop: 564, Start Num: 47  
Candidate Starts for Guppsters\_1:  
(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's),  
(77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137,

424), (140, 439), (152, 514), (166, 556),

Gene: HC\_01 Start: 67, Stop: 540, Start Num: 41

Candidate Starts for HC\_01:

(Start: 41 @67 has 9 MA's), (70, 151), (104, 292), (109, 304), (111, 307), (123, 340), (126, 352), (140, 403), (162, 508),

Gene: Hades\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Hades\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Hamulus\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Hamulus\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (140, 440), (152, 515), (166, 557),

Gene: Harley\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Harley\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (137, 424), (152, 514), (163, 547), (166, 556),

Gene: Hlubikazi\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Hlubikazi\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: HomeFry\_2 Start: 122, Stop: 682, Start Num: 21

Candidate Starts for HomeFry\_2:

(Start: 21 @122 has 40 MA's), (56, 224), (63, 254), (68, 263), (87, 320), (95, 353), (113, 410), (121, 440), (133, 482), (135, 497), (137, 506), (172, 674),

Gene: HubbaBubba\_1 Start: 158, Stop: 709, Start Num: 21

Candidate Starts for HubbaBubba\_1:

(Start: 21 @158 has 40 MA's), (54, 257), (95, 386), (115, 452), (121, 473), (137, 539), (172, 701),

Gene: IDyn\_2 Start: 786, Stop: 1334, Start Num: 21

Candidate Starts for IDyn\_2:

(13, 759), (Start: 21 @786 has 40 MA's), (45, 861), (65, 930), (87, 978), (95, 1011), (115, 1077), (121, 1098), (137, 1164), (172, 1326),

Gene: IMpilo\_1 Start: 194, Stop: 565, Start Num: 75

Candidate Starts for IMpilo\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (152, 515), (166, 557),

Gene: IbOuu\_1 Start: 192, Stop: 563, Start Num: 75

Candidate Starts for IbOuu\_1:

(15, 9), (Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Ibantik\_65 Start: 27614, Stop: 28042, Start Num: 41

Candidate Starts for Ibantik\_65:

(Start: 41 @27614 has 9 MA's), (105, 27824), (107, 27827), (123, 27869), (141, 27938), (151, 27995), (153, 27998),

Gene: lbhubesi\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for lbhubesi\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (137, 424), (152, 514), (163, 547), (166, 556),

Gene: Inventum\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Inventum\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: IrishSherpFalk\_1 Start: 112, Stop: 567, Start Num: 47

Candidate Starts for IrishSherpFalk\_1:

(Start: 47 @112 has 154 MA's), (Start: 55 @139 has 9 MA's), (69, 178), (Start: 75 @196 has 3 MA's), (76, 199), (77, 211), (83, 238), (87, 244), (95, 277), (103, 313), (107, 322), (110, 328), (131, 391), (137, 427), (140, 442), (152, 517), (163, 550), (166, 559),

Gene: Jablanski\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Jablanski\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: JacoRen57\_1 Start: 190, Stop: 669, Start Num: 42

Candidate Starts for JacoRen57\_1:

(4, 61), (9, 91), (11, 94), (30, 154), (Start: 42 @190 has 4 MA's), (60, 253), (70, 271), (109, 424), (122, 457), (142, 538), (148, 574), (153, 598), (156, 607),

Gene: James\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for James\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (163, 547), (166, 556),

Gene: Jant\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Jant\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Jacob\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Jacob\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131,

388), (152, 514), (163, 547), (166, 556),

Gene: Jennelsea\_1 Start: 208, Stop: 564, Start Num: 77

Candidate Starts for Jennelsea\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Jifall16\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Jifall16\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: Jinglebell\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Jinglebell\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: JoeyJr\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for JoeyJr\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Juniper1\_1 Start: 192, Stop: 563, Start Num: 75

Candidate Starts for Juniper1\_1:

(15, 9), (Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Kabluna\_1 Start: 289, Stop: 708, Start Num: 59

Candidate Starts for Kabluna\_1:

(10, 124), (Start: 22 @160 has 1 MA's), (45, 235), (Start: 59 @289 has 1 MA's), (87, 355), (95, 388), (113, 445), (115, 454), (119, 469), (121, 475), (137, 541), (172, 700),

Gene: Karhdo\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Karhdo\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (140, 440), (152, 515), (166, 557),

Gene: Kenuha5\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for Kenuha5\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Kersh\_1 Start: 112, Stop: 567, Start Num: 47

Candidate Starts for Kersh\_1:

(Start: 47 @112 has 154 MA's), (Start: 55 @139 has 9 MA's), (69, 178), (Start: 75 @196 has 3 MA's), (76, 199), (77, 211), (83, 238), (87, 244), (95, 277), (103, 313), (107, 322), (110, 328), (131, 391), (137, 427), (140, 442), (152, 517), (163, 550), (166, 559),

Gene: KidneyBean\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for KidneyBean\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: Kimchi1738\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for Kimchi1738\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (116, 385), (121, 403), (135, 460), (147, 535),

Gene: KingJulian\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for KingJulian\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: KingMidas\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for KingMidas\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Koella\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Koella\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Krakatau\_2 Start: 784, Stop: 1212, Start Num: 55

Candidate Starts for Krakatau\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (152, 1162), (166, 1204),

Gene: KristaRAM\_2 Start: 754, Stop: 1212, Start Num: 43

Candidate Starts for KristaRAM\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (140, 1087), (152, 1162), (166, 1204),

Gene: Kurt\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Kurt\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: LastJedi\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for LastJedi\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Latretium\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Latretium\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Leperchaun\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Leperchaun\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: LilMoolah\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for LilMoolah\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Lilas\_1 Start: 73, Stop: 504, Start Num: 40

Candidate Starts for Lilas\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Lizziana\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Lizziana\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: Llama\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Llama\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: Llij\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Llij\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Lollipop1437\_1 Start: 121, Stop: 687, Start Num: 21

Candidate Starts for Lollipop1437\_1:

(Start: 21 @121 has 40 MA's), (Start: 43 @187 has 28 MA's), (74, 277), (79, 301), (95, 361), (113, 418), (115, 427), (121, 448), (137, 514), (171, 676), (172, 679),

Gene: LonelyBoi\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for LonelyBoi\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: LongHai\_5 Start: 1624, Stop: 2100, Start Num: 42

Candidate Starts for LongHai\_5:

(29, 1576), (Start: 42 @1624 has 4 MA's), (60, 1687), (62, 1690), (74, 1720), (97, 1822), (156, 2047), (165, 2068), (169, 2077),

Gene: LunaBlu\_1 Start: 135, Stop: 563, Start Num: 55

Candidate Starts for LunaBlu\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: LunaStella\_1 Start: 55, Stop: 477, Start Num: 43

Candidate Starts for LunaStella\_1:

(12, 7), (16, 16), (Start: 43 @55 has 28 MA's), (72, 136), (106, 238), (129, 307), (130, 310), (142, 376), (146, 409), (156, 445), (159, 454),

Gene: Mabodamaca\_1 Start: 146, Stop: 604, Start Num: 42

Candidate Starts for Mabodamaca\_1:

(Start: 32 @125 has 5 MA's), (Start: 42 @146 has 4 MA's), (117, 374), (138, 458), (150, 527),

Gene: MacGully\_1 Start: 112, Stop: 666, Start Num: 19

Candidate Starts for MacGully\_1:

(Start: 19 @112 has 7 MA's), (37, 163), (56, 214), (64, 247), (95, 325), (133, 454), (137, 478), (161, 583),

Gene: Maco6\_2 Start: 581, Stop: 1054, Start Num: 42

Candidate Starts for Maco6\_2:

(29, 533), (Start: 42 @581 has 4 MA's), (60, 644), (62, 647), (74, 677), (97, 779), (156, 1004), (165, 1025), (169, 1034),

Gene: MadMen\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for MadMen\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Mahavrat\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Mahavrat\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (77, 207), (80, 219), (82, 222), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (137, 423), (152, 513), (163, 546), (166, 555),

Gene: Mandlovu\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Mandlovu\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Mantra\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Mantra\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Maravista\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Maravista\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (140, 439), (152, 514), (163, 547), (166, 556),

Gene: Marietta\_1 Start: 159, Stop: 710, Start Num: 21

Candidate Starts for Marietta\_1:

(Start: 21 @159 has 40 MA's), (54, 258), (95, 387), (115, 453), (121, 474), (137, 540), (172, 702),

Gene: Marteena\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Marteena\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Martik\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Martik\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: Maselop\_1 Start: 110, Stop: 667, Start Num: 19

Candidate Starts for Maselop\_1:

(Start: 19 @110 has 7 MA's), (37, 161), (49, 188), (50, 191), (56, 212), (64, 245), (95, 326), (100, 353), (121, 413), (168, 608),

Gene: Mattes\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Mattes\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Medindi\_1 Start: 137, Stop: 565, Start Num: 55

Candidate Starts for Medindi\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (152, 515), (166, 557),

Gene: Melissauren88\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Melissauren88\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: MerCougar\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for MerCougar\_1:

(Start: 21 @158 has 40 MA's), (56, 266), (70, 308), (95, 395), (121, 482), (137, 548), (172, 707),

Gene: MilanaBonita\_2 Start: 754, Stop: 1212, Start Num: 43

Candidate Starts for MilanaBonita\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (152, 1162), (166, 1204),

Gene: MilleniumForce\_2 Start: 754, Stop: 1212, Start Num: 43

Candidate Starts for MilleniumForce\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (152, 1162), (166, 1204),

Gene: MinionDave\_2 Start: 784, Stop: 1212, Start Num: 55

Candidate Starts for MinionDave\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (140, 1087), (152, 1162), (166, 1204),

Gene: Minnie\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for Minnie\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: MisterCuddles\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for MisterCuddles\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: Modragons\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Modragons\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: Moonbeam\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Moonbeam\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (140, 439), (152, 514), (163, 547), (166, 556),

Gene: Ms6\_1 Start: 193, Stop: 564, Start Num: 75

Candidate Starts for Ms6\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Muddy\_4 Start: 1535, Stop: 2008, Start Num: 42

Candidate Starts for Muddy\_4:

(29, 1487), (Start: 42 @1535 has 4 MA's), (60, 1598), (62, 1601), (74, 1631), (97, 1733), (156, 1958), (165, 1979), (169, 1988),

Gene: MulchSalad\_1 Start: 135, Stop: 563, Start Num: 55

Candidate Starts for MulchSalad\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (77, 207), (80, 219), (82, 222), (83, 234), (87, 240), (95, 273), (107, 318), (110, 324), (112, 327), (137, 423), (152, 513), (166, 555),

Gene: Mutaforma13\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Mutaforma13\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Mwanjiwa\_1 Start: 135, Stop: 563, Start Num: 55

Candidate Starts for Mwanjiwa\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: NadineRae\_1 Start: 159, Stop: 710, Start Num: 21

Candidate Starts for NadineRae\_1:

(Start: 21 @159 has 40 MA's), (54, 258), (95, 387), (115, 453), (121, 474), (137, 540), (172, 702),

Gene: NatB6\_2 Start: 773, Stop: 1330, Start Num: 21

Candidate Starts for NatB6\_2:

(Start: 21 @773 has 40 MA's), (74, 932), (87, 977), (95, 1010), (115, 1076), (121, 1097), (137, 1163), (172, 1322),

Gene: Nebkiss\_1 Start: 130, Stop: 579, Start Num: 46

Candidate Starts for Nebkiss\_1:

(23, 58), (Start: 46 @130 has 3 MA's), (52, 145), (62, 187), (73, 214), (78, 238), (84, 262), (88, 268), (91, 283), (92, 286), (102, 331), (106, 343), (114, 364), (136, 451), (146, 517), (156, 550), (157, 553),

Gene: NewHope4\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for NewHope4\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Nichirin\_1 Start: 193, Stop: 564, Start Num: 75

Candidate Starts for Nichirin\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: Nimbo\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Nimbo\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Nitzel\_2 Start: 754, Stop: 1212, Start Num: 43

Candidate Starts for Nitzel\_2:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (152, 1162), (166, 1204),

Gene: Nivrat\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Nivrat\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: NoShow\_1 Start: 166, Stop: 675, Start Num: 28

Candidate Starts for NoShow\_1:

(4, 82), (11, 115), (Start: 28 @166 has 1 MA's), (36, 199), (53, 244), (60, 277), (93, 379), (107, 436), (122, 478), (132, 508), (143, 562), (155, 625),

Gene: NormanBulbieJr\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for NormanBulbieJr\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: NosilaM\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for NosilaM\_1:

(Start: 21 @158 has 40 MA's), (56, 266), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: NovumRegina\_2 Start: 773, Stop: 1330, Start Num: 21

Candidate Starts for NovumRegina\_2:

(Start: 21 @773 has 40 MA's), (74, 932), (87, 977), (95, 1010), (115, 1076), (121, 1097), (137, 1163), (172, 1322),

Gene: Ochi17\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Ochi17\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: OfUltron\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for OfUltron\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: Okabe\_3 Start: 841, Stop: 1212, Start Num: 75

Candidate Starts for Okabe\_3:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (140, 1087), (152, 1162), (166, 1204),

Gene: OldBen\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for OldBen\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: OlympiaSaint\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for OlympiaSaint\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388),

(152, 514), (163, 547), (166, 556),

Gene: Outis\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Outis\_1:

(Start: 21 @158 has 40 MA's), (56, 266), (70, 308), (95, 395), (105, 437), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: Ovechkin\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Ovechkin\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: P1201\_02 Start: 294, Stop: 875, Start Num: 6

Candidate Starts for P1201\_02:

(6, 294), (10, 306), (33, 390), (51, 429), (80, 525), (95, 579), (97, 594), (105, 621),

Gene: PHappiness\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for PHappiness\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: PMC\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for PMC\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Pacc40\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Pacc40\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Patio\_2 Start: 777, Stop: 1343, Start Num: 21

Candidate Starts for Patio\_2:

(3, 642), (Start: 21 @777 has 40 MA's), (74, 933), (95, 1017), (113, 1074), (115, 1083), (121, 1104), (137, 1170), (171, 1332), (172, 1335),

Gene: PatoPoderoso\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for PatoPoderoso\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Pemberton\_1 Start: 159, Stop: 710, Start Num: 21

Candidate Starts for Pemberton\_1:

(Start: 21 @159 has 40 MA's), (54, 258), (95, 387), (115, 453), (121, 474), (137, 540), (172, 702),

Gene: Percival\_1 Start: 128, Stop: 607, Start Num: 32

Candidate Starts for Percival\_1:

(14, 56), (Start: 32 @128 has 5 MA's), (39, 140), (108, 356), (117, 377), (137, 452), (148, 515), (158, 551),

Gene: PeteyPab\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for PeteyPab\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (121, 403), (135, 460),

Gene: Phalconet\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for Phalconet\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Phanphagia\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Phanphagia\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Phasih\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Phasih\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Phatniss\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Phatniss\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (140, 439), (152, 514), (163, 547), (166, 556),

Gene: PhesterPhotato\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for PhesterPhotato\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Philus\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Philus\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: PhlipPhlop\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for PhlipPhlop\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Phomeo\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Phomeo\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: Pippy\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Pippy\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Pleakley\_1 Start: 122, Stop: 679, Start Num: 21

Candidate Starts for Pleakley\_1:

(Start: 21 @122 has 40 MA's), (87, 317), (95, 350), (113, 407), (121, 437), (133, 479), (135, 494), (137, 503), (172, 671),

Gene: Poenanya\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Poenanya\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Polka14\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Polka14\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Pollux\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Pollux\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: Polo2Bam\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Polo2Bam\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Polyuki\_1 Start: 110, Stop: 667, Start Num: 19

Candidate Starts for Polyuki\_1:

(Start: 19 @110 has 7 MA's), (37, 161), (49, 188), (56, 212), (64, 245), (95, 326), (100, 353), (121, 413), (168, 608),

Gene: Ponzi\_41 Start: 22312, Stop: 22740, Start Num: 41

Candidate Starts for Ponzi\_41:

(Start: 41 @22312 has 9 MA's), (113, 22534), (141, 22633), (165, 22726),

Gene: PopTart\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for PopTart\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (66, 172), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Posh\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Posh\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: PotatoChip\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for PotatoChip\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (121, 403), (135, 460),

Gene: Priscilla\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Priscilla\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Pytheas\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Pytheas\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (146, 436), (156, 472), (159, 481),

Gene: QueenHazel\_1 Start: 67, Stop: 540, Start Num: 41

Candidate Starts for QueenHazel\_1:

(34, 55), (Start: 41 @67 has 9 MA's), (70, 151), (78, 187), (104, 292), (109, 304), (111, 307), (123, 340), (126, 352), (140, 403), (160, 499), (162, 508),

Gene: QuickMath\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for QuickMath\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Radiance\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Radiance\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: RedBird\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for RedBird\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: RedRaider\_1 Start: 121, Stop: 687, Start Num: 21

Candidate Starts for RedRaider\_1:

(Start: 21 @121 has 40 MA's), (Start: 43 @187 has 28 MA's), (54, 214), (74, 277), (95, 361), (113, 418), (115, 427), (121, 448), (137, 514), (171, 676), (172, 679),

Gene: Renaud18\_1 Start: 55, Stop: 477, Start Num: 43

Candidate Starts for Renaud18\_1:

(16, 16), (Start: 43 @55 has 28 MA's), (72, 136), (106, 238), (129, 307), (142, 376), (156, 445), (159, 454),

Gene: Rita\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Rita\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (152, 515), (166, 557),

Gene: RitaG\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for RitaG\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Rockne\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Rockne\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Royals2015\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Royals2015\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Ruby\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Ruby\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: RunningOnE\_61 Start: 26921, Stop: 27355, Start Num: 41

Candidate Starts for RunningOnE\_61:

(35, 26906), (Start: 41 @26921 has 9 MA's), (81, 27038), (136, 27221), (141, 27245), (145, 27278),

Gene: SG4\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for SG4\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Saal\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Saal\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Sabbb\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Sabbb\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Salvus\_5 Start: 1624, Stop: 2100, Start Num: 42

Candidate Starts for Salvus\_5:

(29, 1576), (Start: 42 @1624 has 4 MA's), (60, 1687), (62, 1690), (74, 1720), (97, 1822), (156, 2047), (165, 2068), (169, 2077),

Gene: Sandalphon\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Sandalphon\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Sassafras\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Sassafras\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: SassyB\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for SassyB\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Scottish\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Scottish\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Scuba\_1 Start: 122, Stop: 679, Start Num: 21

Candidate Starts for Scuba\_1:

(Start: 21 @122 has 40 MA's), (Start: 43 @188 has 28 MA's), (87, 317), (95, 350), (113, 407), (121, 437), (135, 494), (137, 503), (172, 671),

Gene: SeaLumen\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for SeaLumen\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Seabastian\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Seabastian\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (166, 556),

Gene: Shauna1\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Shauna1\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: ShiLan\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for ShiLan\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (77, 208), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: ShowerHandel\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for ShowerHandel\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: ShroomBoi\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for ShroomBoi\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: SiSi\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for SiSi\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (137, 424), (140, 439), (152, 514), (163, 547), (166, 556),

Gene: Skysand\_1 Start: 121, Stop: 687, Start Num: 21

Candidate Starts for Skysand\_1:

(Start: 21 @121 has 40 MA's), (Start: 43 @187 has 28 MA's), (74, 277), (79, 301), (95, 361), (113, 418), (115, 427), (121, 448), (137, 514), (171, 676), (172, 679),

Gene: Sparkdehlily\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Sparkdehlily\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (152, 515), (166, 557),

Gene: Sparky\_1 Start: 98, Stop: 529, Start Num: 43

Candidate Starts for Sparky\_1:

(10, 2), (20, 35), (31, 74), (Start: 43 @98 has 28 MA's), (78, 209), (106, 281), (139, 407), (142, 422), (156, 497),

Gene: Spartacus\_1 Start: 112, Stop: 567, Start Num: 47

Candidate Starts for Spartacus\_1:

(Start: 47 @112 has 154 MA's), (Start: 55 @139 has 9 MA's), (69, 178), (Start: 75 @196 has 3 MA's), (76, 199), (77, 211), (83, 238), (87, 244), (95, 277), (103, 313), (107, 322), (110, 328), (131, 391), (137, 427), (140, 442), (152, 517), (163, 550), (166, 559),

Gene: Spooks\_48 Start: 26248, Stop: 26673, Start Num: 41

Candidate Starts for Spooks\_48:

(Start: 41 @26248 has 9 MA's), (62, 26314), (103, 26449), (120, 26494), (141, 26569), (154, 26629), (156, 26635),

Gene: Spoonbill\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Spoonbill\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (137, 424),

(140, 439), (150, 508), (152, 514), (163, 547), (166, 556),

Gene: StAnnes\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for StAnnes\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: StarStruck\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for StarStruck\_1:

(Start: 21 @158 has 40 MA's), (56, 266), (70, 308), (95, 395), (105, 437), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: Stellammi\_1 Start: 109, Stop: 558, Start Num: 46

Candidate Starts for Stellammi\_1:

(Start: 46 @109 has 3 MA's), (62, 166), (78, 217), (92, 265), (94, 268), (106, 322), (113, 337), (124, 376), (131, 397), (134, 418), (136, 430), (141, 457), (144, 481), (154, 523),

Gene: Stickynote\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for Stickynote\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (121, 403), (135, 460), (147, 535),

Gene: Strokeseat\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Strokeseat\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Success\_49 Start: 25367, Stop: 25792, Start Num: 41

Candidate Starts for Success\_49:

(Start: 41 @25367 has 9 MA's), (57, 25412), (62, 25433), (103, 25568), (111, 25586), (123, 25619), (136, 25664), (141, 25688), (154, 25748), (156, 25754),

Gene: Sukkupi\_1 Start: 159, Stop: 710, Start Num: 21

Candidate Starts for Sukkupi\_1:

(Start: 21 @159 has 40 MA's), (54, 258), (95, 387), (115, 453), (121, 474), (137, 540), (172, 702),

Gene: SuperGrey\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for SuperGrey\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: SuperHands\_1 Start: 128, Stop: 607, Start Num: 32

Candidate Starts for SuperHands\_1:

(Start: 32 @128 has 5 MA's), (108, 356), (117, 377), (137, 452), (148, 515), (158, 551),

Gene: SuperSulley\_1 Start: 157, Stop: 702, Start Num: 21

Candidate Starts for SuperSulley\_1:

(Start: 21 @157 has 40 MA's), (56, 265), (95, 382), (115, 448), (121, 469), (137, 535), (172, 694),

Gene: SwagPiggett\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for SwagPiggett\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (77, 209), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (131, 389), (137, 425), (140, 440), (152, 515), (163, 548), (166, 557),

Gene: TChen\_1 Start: 55, Stop: 477, Start Num: 43

Candidate Starts for TChen\_1:

(12, 7), (16, 16), (Start: 43 @55 has 28 MA's), (72, 136), (106, 238), (129, 307), (130, 310), (142, 376), (146, 409), (156, 445), (159, 454),

Gene: TDanisky\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for TDanisky\_1:

(Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (76, 197), (83, 236), (87, 242), (95, 275), (103, 311), (107, 320), (110, 326), (112, 329), (131, 389), (152, 515), (166, 557),

Gene: Taj\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Taj\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: ThetaBob\_1 Start: 55, Stop: 477, Start Num: 43

Candidate Starts for ThetaBob\_1:

(16, 16), (Start: 43 @55 has 28 MA's), (72, 136), (106, 238), (129, 307), (130, 310), (142, 376), (156, 445), (159, 454),

Gene: Topiatin\_3 Start: 754, Stop: 1212, Start Num: 43

Candidate Starts for Topiatin\_3:

(Start: 43 @754 has 28 MA's), (Start: 55 @784 has 9 MA's), (69, 823), (Start: 75 @841 has 3 MA's), (77, 856), (80, 868), (82, 871), (83, 883), (87, 889), (95, 922), (107, 967), (110, 973), (112, 976), (137, 1072), (152, 1162), (166, 1204),

Gene: Toron\_1 Start: 55, Stop: 477, Start Num: 43

Candidate Starts for Toron\_1:

(16, 16), (Start: 43 @55 has 28 MA's), (73, 142), (99, 214), (106, 238), (125, 298), (129, 307), (130, 310), (142, 376), (144, 394), (156, 445), (159, 454),

Gene: Tracker\_1 Start: 159, Stop: 701, Start Num: 21

Candidate Starts for Tracker\_1:

(Start: 21 @159 has 40 MA's), (95, 387), (113, 444), (115, 453), (121, 474), (137, 540), (172, 693),

Gene: Turuncu\_1 Start: 122, Stop: 688, Start Num: 21

Candidate Starts for Turuncu\_1:

(Start: 21 @122 has 40 MA's), (74, 281), (95, 362), (113, 419), (115, 428), (121, 449), (137, 515),

Gene: Tweety\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Tweety\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: VRedHorse\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for VRedHorse\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Veteran\_1 Start: 110, Stop: 565, Start Num: 47

Candidate Starts for Veteran\_1:

(Start: 28 @50 has 1 MA's), (Start: 47 @110 has 154 MA's), (Start: 55 @137 has 9 MA's), (69, 176), (Start: 75 @194 has 3 MA's), (77, 209), (80, 221), (82, 224), (83, 236), (87, 242), (95, 275), (107, 320), (110, 326), (112, 329), (137, 425), (140, 440), (152, 515), (166, 557),

Gene: Violac\_1 Start: 135, Stop: 563, Start Num: 55

Candidate Starts for Violac\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (103, 309), (107, 318), (110, 324), (131, 387), (152, 513), (163, 546), (166, 555),

Gene: Vivum\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Vivum\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Wachhund\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Wachhund\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Wee\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Wee\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Whatsapiecost\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Whatsapiecost\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (152, 514), (166, 556),

Gene: Wheezy\_1 Start: 158, Stop: 715, Start Num: 21

Candidate Starts for Wheezy\_1:

(Start: 21 @158 has 40 MA's), (74, 317), (87, 362), (95, 395), (115, 461), (121, 482), (137, 548), (172, 707),

Gene: WhoseManz\_1 Start: 159, Stop: 710, Start Num: 21

Candidate Starts for WhoseManz\_1:

(Start: 21 @159 has 40 MA's), (54, 258), (95, 387), (115, 453), (121, 474), (137, 540), (172, 702),

Gene: Whouxphf\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Whouxphf\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (76, 196), (83, 235), (87, 241), (95, 274), (103, 310), (107, 319), (110, 325), (131, 388), (137, 424), (152, 514), (163, 547), (166, 556),

Gene: WillSterrel\_1 Start: 112, Stop: 567, Start Num: 47

Candidate Starts for WillSterrel\_1:

(Start: 47 @112 has 154 MA's), (Start: 55 @139 has 9 MA's), (69, 178), (Start: 75 @196 has 3 MA's), (76, 199), (77, 211), (83, 238), (87, 244), (95, 277), (103, 313), (107, 322), (110, 328), (131, 391), (137, 427), (140, 442), (152, 517), (163, 550), (166, 559),

Gene: Wrigley\_1 Start: 82, Stop: 504, Start Num: 43

Candidate Starts for Wrigley\_1:

(Start: 40 @73 has 1 MA's), (Start: 43 @82 has 28 MA's), (96, 226), (106, 265), (125, 325), (139, 388), (146, 436), (156, 472), (159, 481),

Gene: XFactor\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for XFactor\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),

Gene: Xula\_1 Start: 67, Stop: 540, Start Num: 41

Candidate Starts for Xula\_1:

(34, 55), (Start: 41 @67 has 9 MA's), (70, 151), (78, 187), (104, 292), (109, 304), (111, 307), (123, 340), (126, 352), (140, 403), (162, 508),

Gene: Yndexa\_1 Start: 159, Stop: 710, Start Num: 21

Candidate Starts for Yndexa\_1:

(Start: 21 @159 has 40 MA's), (54, 258), (95, 387), (115, 453), (121, 474), (137, 540), (172, 702),

Gene: Yorick\_1 Start: 108, Stop: 563, Start Num: 47

Candidate Starts for Yorick\_1:

(Start: 47 @108 has 154 MA's), (Start: 55 @135 has 9 MA's), (69, 174), (Start: 75 @192 has 3 MA's), (76, 195), (83, 234), (87, 240), (95, 273), (107, 318), (110, 324), (131, 387), (137, 423), (140, 438), (152, 513), (163, 546), (166, 555),

Gene: Zerg\_1 Start: 136, Stop: 564, Start Num: 55

Candidate Starts for Zerg\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (131, 388), (152, 514), (163, 547), (166, 556),

Gene: Zion\_1 Start: 94, Stop: 618, Start Num: 27

Candidate Starts for Zion\_1:

(8, 40), (17, 61), (Start: 27 @94 has 8 MA's), (49, 157), (58, 190), (67, 217), (85, 280), (95, 316), (97, 331), (109, 367), (121, 403), (135, 460),

Gene: Zizzle\_1 Start: 109, Stop: 564, Start Num: 47

Candidate Starts for Zizzle\_1:

(Start: 47 @109 has 154 MA's), (Start: 55 @136 has 9 MA's), (69, 175), (Start: 75 @193 has 3 MA's), (77, 208), (80, 220), (82, 223), (83, 235), (87, 241), (95, 274), (107, 319), (110, 325), (112, 328), (137, 424), (140, 439), (152, 514), (166, 556),