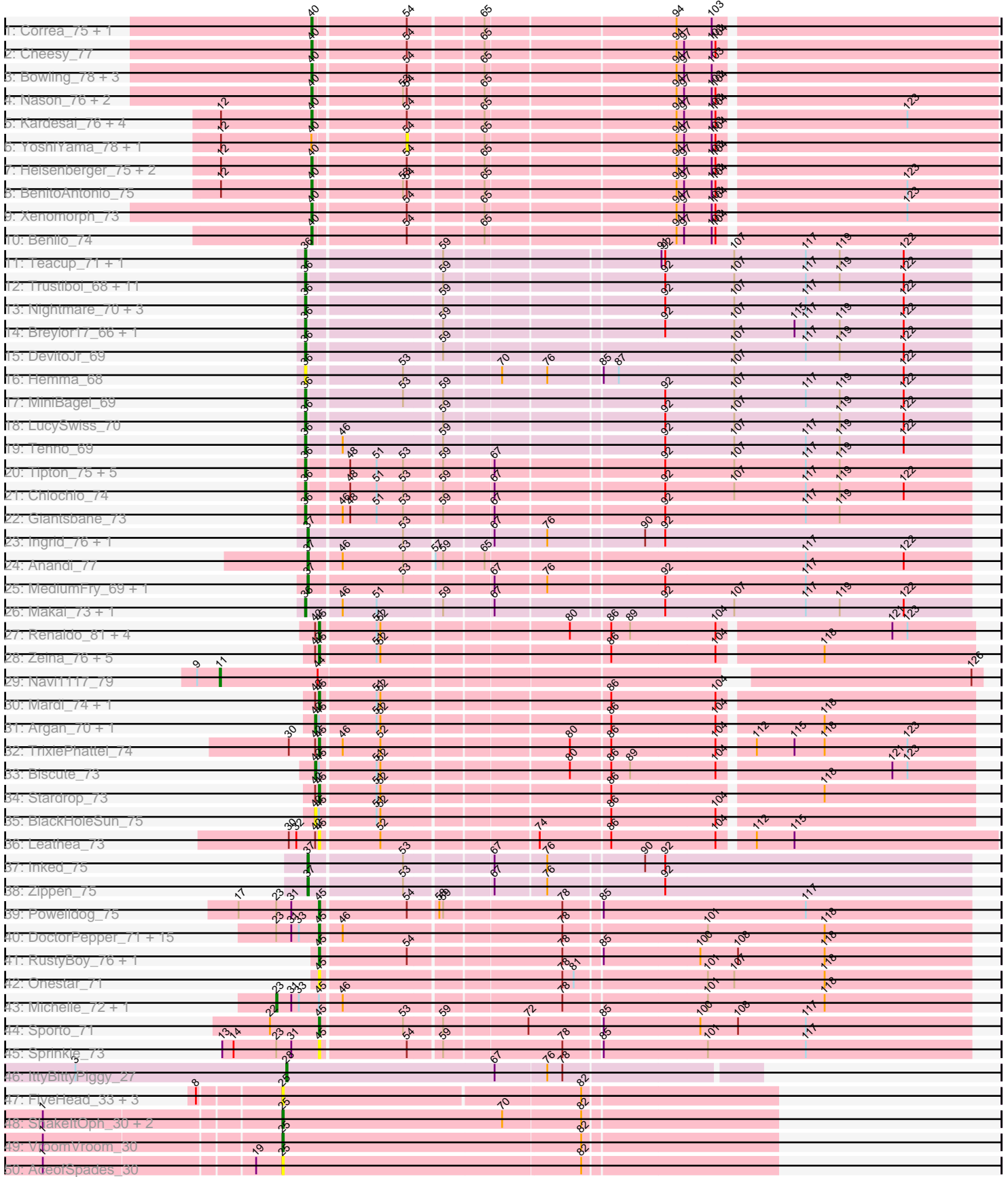
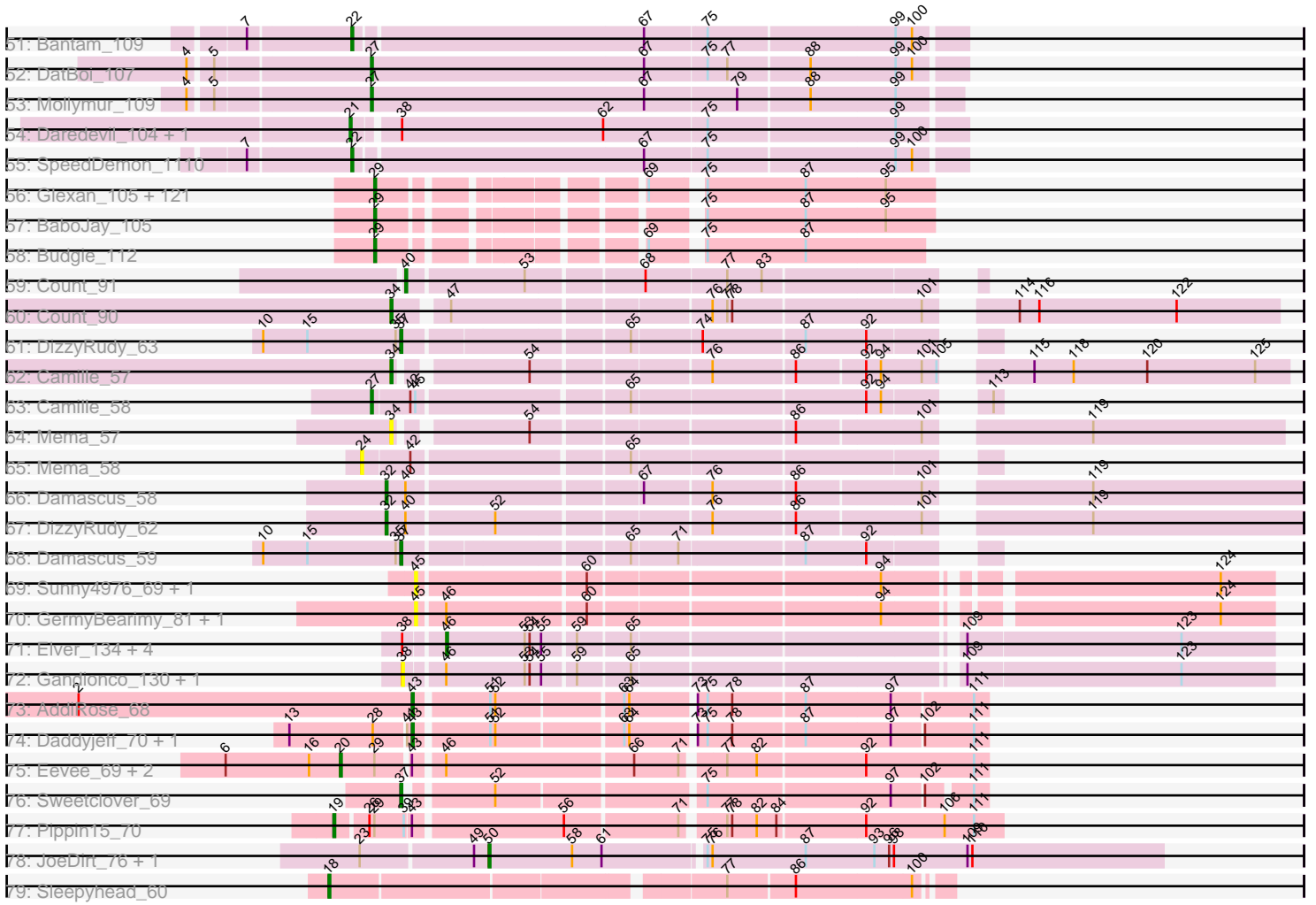


Pham 307977



Pham 307977



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 307977 Report

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

Pham number 307977 has 282 members, 34 are drafts.

Phages represented in each track:

- Track 1 : Correa\_75, Tribby\_80
- Track 2 : Cheesy\_77
- Track 3 : Bowling\_78, Dynamite\_76, NapoleonB\_77, Hankly\_76
- Track 4 : Nason\_76, Elsa\_76, Arcadia\_76
- Track 5 : Kardesai\_76, Mooshroom\_77, Circum\_78, KeaneyLin\_72, GoCrazy\_73
- Track 6 : YoshiYama\_78, Stardom\_76
- Track 7 : Heisenberger\_75, JEGGS\_75, Mudcat\_72
- Track 8 : BenitoAntonio\_75
- Track 9 : Xenomorph\_73
- Track 10 : Benllo\_74
- Track 11 : Teacup\_71, Acai\_67
- Track 12 : Trustiboi\_68, CastorTray\_73, Gordon\_67, Tatanka\_63, Darby\_67, Issa\_65, ElephantMan\_70, Brunswick\_71, Dinallo\_65, ScienceWizSam\_71, Niktson\_70, CapnMurica\_67
- Track 13 : Nightmare\_70, Nivinsha\_72, AreFloNak\_73, Synopsis\_66
- Track 14 : Breylor17\_66, Westerlin\_67
- Track 15 : DevitoJr\_69
- Track 16 : Hemma\_68
- Track 17 : MiniBagel\_69
- Track 18 : LucySwiss\_70
- Track 19 : Tenno\_69
- Track 20 : Tipton\_75, LilHuddy\_74, Bouchard\_74, Tokki\_79, Phaby\_75, Shepard\_74
- Track 21 : Chlochlo\_74
- Track 22 : Giantsbane\_73
- Track 23 : Ingrid\_76, Loretta\_72
- Track 24 : Anandi\_77
- Track 25 : MediumFry\_69, Caterpillar\_69
- Track 26 : Makai\_73, Truckee\_71
- Track 27 : Renaldo\_81, BarbieDoll\_77, Muglass\_75, Lewando\_77, Kinny\_76
- Track 28 : Zeina\_76, GantcherGoblin\_71, Phaila\_73, Uzumaki\_70, PoeMe\_73, Navi1117\_76
- Track 29 : Navi1117\_79
- Track 30 : Mardi\_74, Tenney120\_74
- Track 31 : Argan\_70, KevinMinion\_71
- Track 32 : TrixiePhattel\_74
- Track 33 : Biscute\_73
- Track 34 : Stardrop\_73

- Track 35 : BlackHoleSun\_75
- Track 36 : Leathea\_73
- Track 37 : Inked\_75
- Track 38 : Zippen\_75
- Track 39 : Powelldog\_75
- Track 40 : DoctorPepper\_71, Raunak\_73, MrAaronian\_72, HerbBucket\_70, Djungelskog\_71, Spain\_72, Jeremy4pt0\_71, Shiba\_71, Sloopyjoe\_72, StarLord\_72, ProfFrink\_72, Linda\_72, Salk\_72, Egad\_72, Boog\_71, BronxBay\_72
- Track 41 : RustyBoy\_76, Natasha\_75
- Track 42 : Onestar\_71
- Track 43 : Michelle\_72, Stayer\_72
- Track 44 : Sporto\_71
- Track 45 : Sprinkle\_73
- Track 46 : IttyBittyPiggy\_27
- Track 47 : FiveHead\_33, Origami\_31, LadyAstra\_31, JohnThicc\_32
- Track 48 : ShakeltOph\_30, MiniMommy\_30, JasmineDragon\_30
- Track 49 : VroomVroom\_30
- Track 50 : AceofSpades\_30
- Track 51 : Bantam\_109
- Track 52 : DatBoi\_107
- Track 53 : Mollymur\_109
- Track 54 : Daredevil\_104, Towmatter\_103
- Track 55 : SpeedDemon\_1110
- Track 56 : Glexan\_105, TBrady12\_109, Bench\_108, Lilizi\_106, JeTaime\_104, Lilpickle\_105, Nimrod\_106, Hopey\_106, Paperbeatsrock\_105, DrDrey\_106, Stark\_106, Moldemort\_108, Kimchi\_110, Emmina\_106, Traaww1\_102, RiverMonster\_105, Contagion\_102, Thimble\_108, Adnama\_110, Cjw1\_106, Goku\_105, Misfit\_107, Teaspoon\_106, Murica\_109, Phaja\_104, Tuco\_107, Brewer\_102, Cookies\_103, Kanye\_103, HanKaySha\_106, StolenFromERC\_108, Bruin\_103, Bask21\_106, Czyszczo1\_106, PhatBacter\_109, Buck\_107, Elite2014\_105, Manda\_107, Amao\_106, GoldenSpark\_110, Phaux\_108, ChosenOne\_106, Harella\_106, Command613\_108, NelitzaMV\_103, Murphy\_105, Dumbo\_105, Mindy\_105, Gage\_108, Eureka\_105, CrystalP\_105, ChotaBhai\_106, Tarkin\_105, Ukulele\_100, Barbarian\_105, DoctorDiddles\_105, 244\_106, Gator\_104, Hoonter\_109, Easy2Say\_106, Nala\_108, Wiggin\_108, Kostya\_106, OrionPax\_104, TeardropMSU\_102, Elph10\_105, Flypotenuse\_102, ABCat\_103, Saints25\_102, FireRed\_109, Lilac\_107, Thresher\_107, YassJohnny\_103, xkcd\_109, Sassay\_101, Henry\_103, Phrux\_102, Cactus\_110, Asriel\_104, Sotrice96\_107, Gemini\_111, HuffyPuff\_108, Goldilocks\_109, SirDuracell\_106, SophKB\_104, Dusk\_103, Icee\_107, MPhalcon\_107, BadStone\_103, Youngblood\_109, Argent26\_110, Terminus\_109, Rakim\_107, Pharsalus\_103, Miniwave\_101, StellaBean\_105, Highbury\_102, Filch\_107, Willez\_101, MISSy\_107, Rimmer\_104, ShamWow\_106, BigBubba\_106, Mosby\_102, Stank\_108, Myrale\_106, Marshmallow\_103, MadamMonkfish\_105, ShereKhan\_104, Pat3\_103, Inca\_103, Pumpkin\_107, NoSleep\_106, GooberAzure\_109, Balomoji\_106, Toto\_104, Porky\_104, Tomaszewski\_101, Holt\_111, Simpliphy\_104, Maxxinista\_107, IHOP\_104
- Track 57 : BaboJay\_105
- Track 58 : Budgie\_112
- Track 59 : Count\_91
- Track 60 : Count\_90
- Track 61 : DizzyRudy\_63
- Track 62 : Camille\_57
- Track 63 : Camille\_58

- Track 64 : Mema\_57
- Track 65 : Mema\_58
- Track 66 : Damascus\_58
- Track 67 : DizzyRudy\_62
- Track 68 : Damascus\_59
- Track 69 : Sunny4976\_69, Jazzy4900\_70
- Track 70 : GermyBearimy\_81, Arzan\_73
- Track 71 : Elver\_134, Paella\_134, Kureo\_131, Qui\_134, Marianna39\_131
- Track 72 : Gandionco\_130, JeNeSaisPas\_128
- Track 73 : AddiRose\_68
- Track 74 : Daddyjeff\_70, Serenabean\_69
- Track 75 : Eevee\_69, Yotsuba\_69, JoyLin\_69
- Track 76 : Sweetclover\_69
- Track 77 : Pippin15\_70
- Track 78 : JoeDirt\_76, OhShagHennessy\_74
- Track 79 : Sleepyhead\_60

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

The start number called the most often in the published annotations is 29, it was called in 124 of the 248 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244\_106, ABCat\_103, Adnama\_110, Amao\_106, Argent26\_110, Asriel\_104, BaboJay\_105, BadStone\_103, Balomoji\_106, Barbarian\_105, Bask21\_106, Bench\_108, BigBubba\_106, Brewer\_102, Bruin\_103, Buck\_107, Budgie\_112, Cactus\_110, ChosenOne\_106, ChotaBhai\_106, Cjw1\_106, Command613\_108, Contagion\_102, Cookies\_103, CrystalP\_105, Czyszczonek\_106, DoctorDiddles\_105, DrDrey\_106, Dumbo\_105, Dusk\_103, Easy2Say\_106, Elite2014\_105, Elph10\_105, Emmina\_106, Eureka\_105, Filch\_107, FireRed\_109, Flypotenuse\_102, Gage\_108, Gator\_104, Gemini\_111, Glexan\_105, Goku\_105, GoldenSpark\_110, Goldilocks\_109, GooberAzure\_109, HanKaySha\_106, Harella\_106, Henry\_103, Highbury\_102, Holt\_111, Hoonter\_109, Hopey\_106, HufflyPuff\_108, IHOP\_104, Icee\_107, Inca\_103, JeTaime\_104, Kanye\_103, Kimchi\_110, Kostya\_106, Lilac\_107, Lilizi\_106, Lilpickle\_105, MISSy\_107, MPhalcon\_107, MadamMonkfish\_105, Manda\_107, Marshmallow\_103, Maxxinista\_107, Mindy\_105, Miniwave\_101, Misfit\_107, Moldemort\_108, Mosby\_102, Murica\_109, Murphy\_105, Myrale\_106, Nala\_108, NelitzaMV\_103, Nimrod\_106, NoSleep\_106, OrionPax\_104, Paperbeatsrock\_105, Pat3\_103, Phaja\_104, Pharsalus\_103, PhatBacter\_109, Phaux\_108, Phrux\_102, Porky\_104, Pumpkin\_107, Rakim\_107, Rimmer\_104, RiverMonster\_105, Saints25\_102, Sassay\_101, ShamWow\_106, ShereKhan\_104, Simpliphy\_104, SirDuracell\_106, SophKB\_104, Sotrice96\_107, Stank\_108, Stark\_106, StellaBean\_105, StolenFromERC\_108, TBrady12\_109, Tarkin\_105, TeardropMSU\_102, Teaspoon\_106, Terminus\_109, Thimble\_108, Thresher\_107, Tomaszewski\_101, Toto\_104, Traaww1\_102, Tuco\_107, Ukulele\_100, Wiggins\_108, Willez\_101, YassJohnny\_103, Youngblood\_109, xkcd\_109,

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

- Eevee\_69, JoyLin\_69, Pippin15\_70, Yotsuba\_69,

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

- Acai\_67, AceofSpades\_30, AddiRose\_68, Anandi\_77, Arcadia\_76, AreFloNak\_73, Argan\_70, Arzan\_73, Bantam\_109, BarbieDoll\_77, BenitoAntonio\_75, Benllo\_74, Biscute\_73, BlackHoleSun\_75, Boog\_71, Bouchard\_74, Bowling\_78, Breylor17\_66, BronxBay\_72, Brunswick\_71, Camille\_57, Camille\_58, CapnMurica\_67, CastorTray\_73, Caterpillar\_69, Cheesy\_77, Chlochlo\_74, Circum\_78, Correa\_75, Count\_90, Count\_91, Daddyjeff\_70, Damascus\_58, Damascus\_59, Darby\_67, Daredevil\_104, DatBoi\_107, DevitoJr\_69, Dinallo\_65, DizzyRudy\_62, DizzyRudy\_63, Djungelskog\_71, DoctorPepper\_71, Dynamite\_76, Egad\_72, ElephantMan\_70, Elsa\_76, Elver\_134, FiveHead\_33, Gandionco\_130, GantcherGoblin\_71, GermyBearimy\_81, Giantsbane\_73, GoCrazy\_73, Gordon\_67, Hankly\_76, Heisenberger\_75, Hemma\_68, HerbBucket\_70, Ingrid\_76, Inked\_75, Issa\_65, IttyBittyPiggy\_27, JEGGS\_75, JasmineDragon\_30, Jazzy4900\_70, JeNeSaisPas\_128, Jeremy4pt0\_71, JoeDirt\_76, JohnThicc\_32, Kardesai\_76, KeaneyLin\_72, KevinMinion\_71, Kinny\_76, Kureo\_131, LadyAstra\_31, Leathea\_73, Lewando\_77, LilHuddy\_74, Linda\_72, Loretta\_72, LucySwiss\_70, Makai\_73, Mardi\_74, Marianna39\_131, MediumFry\_69, Mema\_57, Mema\_58, Michelle\_72, MiniBage1\_69, MiniMommy\_30, Mollymur\_109, Mooshroom\_77, MrAaronian\_72, Mudcat\_72, Muglass\_75, NapoleonB\_77, Nason\_76, Natasha\_75, Navi1117\_76, Navi1117\_79, Nightmare\_70, Niktson\_70, Nivinsha\_72, OhShagHennessy\_74, Onestar\_71, Origami\_31, Paella\_134, Phaby\_75, Phaila\_73, PoeMe\_73, Powelldog\_75, ProfFrink\_72, Qui\_134, Raunak\_73, Renaldo\_81, RustyBoy\_76, Salk\_72, ScienceWizSam\_71, Serenabean\_69, ShakeltOph\_30, Shepard\_74, Shiba\_71, Sleepyhead\_60, Sloopyjoe\_72, Spain\_72, SpeedDemon\_1110, Sporto\_71, Sprinkle\_73, StarLord\_72, Stardom\_76, Stardrop\_73, Stayer\_72, Sunny4976\_69, Sweetclover\_69, Synepsis\_66, Tatanka\_63, Teacup\_71, Tenney120\_74, Tenno\_69, Tipton\_75, Tokki\_79, Towmatter\_103, Tribby\_80, TrixiePhattel\_74, Truckee\_71, Trustiboi\_68, Uzumaki\_70, VroomVroom\_30, Westerlin\_67, Xenomorph\_73, YoshiYama\_78, Zeina\_76, Zippen\_75,

### Summary by start number:

Start 11:

- Found in 1 of 282 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Navi1117\_79 (AU6),

Start 18:

- Found in 1 of 282 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sleepyhead\_60 (singleton),

Start 19:

- Found in 2 of 282 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 248
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Pippin15\_70 (JA),

Start 20:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 3 of 248

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Eevee\_69 (JA), JoyLin\_69 (JA), Yotsuba\_69 (JA),

Start 21:

- Found in 2 of 282 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daredevil\_104 (DL), Towmatter\_103 (DL),

Start 22:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 248
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bantam\_109 (DL), SpeedDemon\_1110 (DL),

Start 23:

- Found in 22 of 282 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 2 of 248
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Michelle\_72 (AW), Stayer\_72 (AW),

Start 24:

- Found in 1 of 282 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mema\_58 (EL),

Start 25:

- Found in 9 of 282 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 4 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AceofSpades\_30 (AZ4), FiveHead\_33 (AZ4), JasmineDragon\_30 (AZ4), JohnThicc\_32 (AZ4), LadyAstra\_31 (AZ4), MiniMommy\_30 (AZ4), Origami\_31 (AZ4), ShakeltOph\_30 (AZ4), VroomVroom\_30 (AZ4),

Start 27:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 3 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Camille\_58 (EL), DatBoi\_107 (DL), Mollymur\_109 (DL),

Start 28:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 248
- Called 33.3% of time when present
- Phage (with cluster) where this start called: IttyBittyPiggy\_27 (AZ1),

Start 29:

- Found in 128 of 282 ( 45.4% ) of genes in pham
- Manual Annotations of this start: 124 of 248
- Called 96.9% of time when present
- Phage (with cluster) where this start called: 244\_106 (E), ABCat\_103 (E), Adnama\_110 (E), Amao\_106 (E), Argent26\_110 (E), Asriel\_104 (E), BaboJay\_105 (E), BadStone\_103 (E), Balomoji\_106 (E), Barbarian\_105 (E), Bask21\_106 (E), Bench\_108 (E), BigBubba\_106 (E), Brewer\_102 (E), Bruin\_103 (E), Buck\_107 (E), Budgie\_112 (E), Cactus\_110 (E), ChosenOne\_106 (E), ChotaBhai\_106 (E), Cjw1\_106 (E), Command613\_108 (E), Contagion\_102 (E), Cookies\_103 (E), CrystalP\_105 (E), Czyszczonek\_106 (E), DoctorDiddles\_105 (E), DrDrey\_106 (E), Dumbo\_105 (E), Dusk\_103 (E), Easy2Say\_106 (E), Elite2014\_105 (E), Elph10\_105 (E), Emmina\_106 (E), Eureka\_105 (E), Filch\_107 (E), FireRed\_109 (E), Flypotenuse\_102 (E), Gage\_108 (E), Gator\_104 (E), Gemini\_111 (E), Glexan\_105 (E), Goku\_105 (E), GoldenSpark\_110 (E), Goldilocks\_109 (E), GooberAzure\_109 (E), HanKaySha\_106 (E), Harella\_106 (E), Henry\_103 (E), Highbury\_102 (E), Holt\_111 (E), Hoonter\_109 (E), Hopey\_106 (E), HufflyPuff\_108 (E), IHOP\_104 (E), Icee\_107 (E), Inca\_103 (E), JeTaime\_104 (E), Kanye\_103 (E), Kimchi\_110 (E), Kostya\_106 (E), Lilac\_107 (E), Lilizi\_106 (E), Lilpickle\_105 (E), MISSy\_107 (E), MPhalcon\_107 (E), MadamMonkfish\_105 (E), Manda\_107 (E), Marshmallow\_103 (E), Maxxinista\_107 (E), Mindy\_105 (E), Miniwave\_101 (E), Misfit\_107 (E), Moldemort\_108 (E), Mosby\_102 (E), Murica\_109 (E), Murphy\_105 (E), Myrale\_106 (E), Nala\_108 (E), NelitzaMV\_103 (E), Nimrod\_106 (E), NoSleep\_106 (E), OrionPax\_104 (E), Paperbeatsrock\_105 (E), Pat3\_103 (E), Phaja\_104 (E), Pharsalus\_103 (E), PhatBacter\_109 (E), Phaux\_108 (E), Phrux\_102 (E), Porky\_104 (E), Pumpkin\_107 (E), Rakim\_107 (E), Rimmer\_104 (E), RiverMonster\_105 (E), Saints25\_102 (E), Sassay\_101 (E), ShamWow\_106 (E), ShereKhan\_104 (E), Simpliphy\_104 (E), SirDuracell\_106 (E), SophKB\_104 (E), Sotrice96\_107 (E), Stank\_108 (E), Stark\_106 (E), StellaBean\_105 (E), StolenFromERC\_108 (E), TBrady12\_109 (E), Tarkin\_105 (E), TeardropMSU\_102 (E), Teaspoon\_106 (E), Terminus\_109 (E), Thimble\_108 (E), Thresher\_107 (E), Tomaszewski\_101 (E), Toto\_104 (E), Traaww1\_102 (E), Tuco\_107 (E), Ukulele\_100 (E), Wiggin\_108 (E), Willez\_101 (E), YassJohnny\_103 (E), Youngblood\_109 (E), xkcd\_109 (E),

#### Start 32:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 248
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Damascus\_58 (EL), DizzyRudy\_62 (EL),

#### Start 34:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Camille\_57 (EL), Count\_90 (EL), Mema\_57 (EL),

#### Start 36:

- Found in 35 of 282 ( 12.4% ) of genes in pham
- Manual Annotations of this start: 29 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acai\_67 (AU1), AreFloNak\_73 (AU1), Bouchard\_74 (AU2), Breylor17\_66 (AU1), Brunswick\_71 (AU1), CapnMurica\_67 (AU1), CastorTray\_73 (AU1), Chlochlo\_74 (AU2), Darby\_67 (AU1), DevitoJr\_69

(AU1), Dinallo\_65 (AU1), ElephantMan\_70 (AU1), Giantsbane\_73 (AU2), Gordon\_67 (AU1), Hemma\_68 (AU1), Issa\_65 (AU1), LilHuddy\_74 (AU2), LucySwiss\_70 (AU1), Makai\_73 (AU5), MiniBagel\_69 (AU1), Nightmare\_70 (AU1), Niktson\_70 (AU1), Nivinsha\_72 (AU1), Phaby\_75 (AU2), ScienceWizSam\_71 (AU1), Shepard\_74 (AU2), Synopsis\_66 (AU1), Tatanka\_63 (AU1), Teacup\_71 (AU1), Tenno\_69 (AU1), Tipton\_75 (AU2), Tokki\_79 (AU2), Truckee\_71 (AU5), Trustiboi\_68 (AU1), Westerlin\_67 (AU1),

#### Start 37:

- Found in 10 of 282 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 10 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anandi\_77 (AU4), Caterpillar\_69 (AU4), Damascus\_59 (EL), DizzyRudy\_63 (EL), Ingrid\_76 (AU3), Inked\_75 (AU7), Loretta\_72 (AU3), MediumFry\_69 (AU4), Sweetclover\_69 (JA), Zippen\_75 (AU7),

#### Start 38:

- Found in 9 of 282 ( 3.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Gandionco\_130 (FK), JeNeSaisPas\_128 (FK),

#### Start 40:

- Found in 26 of 282 ( 9.2% ) of genes in pham
- Manual Annotations of this start: 22 of 248
- Called 84.6% of time when present
- Phage (with cluster) where this start called: Arcadia\_76 (AM), BenitoAntonio\_75 (AM), Benllo\_74 (AM), Bowling\_78 (AM), Cheesy\_77 (AM), Circum\_78 (AM), Correa\_75 (AM), Count\_91 (EL), Dynamite\_76 (AM), Elsa\_76 (AM), GoCrazy\_73 (AM), Hankly\_76 (AM), Heisenberger\_75 (AM), JEGGS\_75 (AM), Kardesai\_76 (AM), KeaneyLin\_72 (AM), Mooshroom\_77 (AM), Mudcat\_72 (AM), NapoleonB\_77 (AM), Nason\_76 (AM), Tribby\_80 (AM), Xenomorph\_73 (AM),

#### Start 42:

- Found in 22 of 282 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 3 of 248
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Argan\_70 (AU6), Biscute\_73 (AU6), BlackHoleSun\_75 (AU6), KevinMinion\_71 (AU6),

#### Start 43:

- Found in 7 of 282 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 3 of 248
- Called 42.9% of time when present
- Phage (with cluster) where this start called: AddiRose\_68 (JA), Daddyjeff\_70 (JA), Serenabean\_69 (JA),

#### Start 45:

- Found in 49 of 282 ( 17.4% ) of genes in pham
- Manual Annotations of this start: 28 of 248
- Called 85.7% of time when present

- Phage (with cluster) where this start called: Arzan\_73 (FI), BarbieDoll\_77 (AU6), Boog\_71 (AW), BronxBay\_72 (AW), Djungelskog\_71 (AW), DoctorPepper\_71 (AW), Egad\_72 (AW), GantcherGoblin\_71 (AU6), GermyBearimy\_81 (FI), HerbBucket\_70 (AW), Jazzy4900\_70 (FI), Jeremy4pt0\_71 (AW), Kinny\_76 (AU6), Leathea\_73 (AU6), Lewando\_77 (AU6), Linda\_72 (AW), Mardi\_74 (AU6), MrAaronian\_72 (AW), Muglass\_75 (AU6), Natasha\_75 (AW), Navi1117\_76 (AU6), Onestar\_71 (AW), Phaila\_73 (AU6), PoeMe\_73 (AU6), PowellDog\_75 (AW), ProfFrink\_72 (AW), Raunak\_73 (AW), Renaldo\_81 (AU6), RustyBoy\_76 (AW), Salk\_72 (AW), Shiba\_71 (AW), Sloopyjoe\_72 (AW), Spain\_72 (AW), Sporto\_71 (AW), Sprinkle\_73 (AW), StarLord\_72 (AW), Stardrop\_73 (AU6), Sunny4976\_69 (FI), Tenney120\_74 (AU6), TrixiePhattel\_74 (AU6), Uzumaki\_70 (AU6), Zeina\_76 (AU6),

#### Start 46:

- Found in 36 of 282 ( 12.8% ) of genes in pham
- Manual Annotations of this start: 3 of 248
- Called 13.9% of time when present
- Phage (with cluster) where this start called: Elver\_134 (FK), Kureo\_131 (FK), Marianna39\_131 (FK), Paella\_134 (FK), Qui\_134 (FK),

#### Start 50:

- Found in 2 of 282 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 248
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JoeDirt\_76 (L1), OhShagHennessy\_74 (L1),

#### Start 54:

- Found in 36 of 282 ( 12.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Stardom\_76 (AM), YoshiYama\_78 (AM),

### Summary by clusters:

There are 19 clusters represented in this pham: EL, singleton, AZ1, E, AU7, L1, AM, DL, AU1, AU3, AU2, AU5, AU4, AW, AU6, FI, FK, AZ4, JA,

Info for manual annotations of cluster AM:

- Start number 40 was manually annotated 21 times for cluster AM.

Info for manual annotations of cluster AU1:

- Start number 36 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 36 was manually annotated 8 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 37 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 37 was manually annotated 3 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 36 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 11 was manually annotated 1 time for cluster AU6.
- Start number 42 was manually annotated 3 times for cluster AU6.
- Start number 45 was manually annotated 11 times for cluster AU6.

Info for manual annotations of cluster AU7:

- Start number 37 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:

- Start number 23 was manually annotated 2 times for cluster AW.
- Start number 45 was manually annotated 17 times for cluster AW.

Info for manual annotations of cluster AZ1:

- Start number 28 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ4:

- Start number 25 was manually annotated 4 times for cluster AZ4.

Info for manual annotations of cluster DL:

- Start number 21 was manually annotated 2 times for cluster DL.
- Start number 22 was manually annotated 2 times for cluster DL.
- Start number 27 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster E:

- Start number 29 was manually annotated 124 times for cluster E.

Info for manual annotations of cluster EL:

- Start number 27 was manually annotated 1 time for cluster EL.
- Start number 32 was manually annotated 2 times for cluster EL.
- Start number 34 was manually annotated 2 times for cluster EL.
- Start number 37 was manually annotated 2 times for cluster EL.
- Start number 40 was manually annotated 1 time for cluster EL.

Info for manual annotations of cluster FK:

- Start number 46 was manually annotated 3 times for cluster FK.

Info for manual annotations of cluster JA:

- Start number 19 was manually annotated 1 time for cluster JA.
- Start number 20 was manually annotated 3 times for cluster JA.
- Start number 37 was manually annotated 1 time for cluster JA.
- Start number 43 was manually annotated 3 times for cluster JA.

Info for manual annotations of cluster L1:

- Start number 50 was manually annotated 2 times for cluster L1.

**Gene Information:**

Gene: 244\_106 Start: 61588, Stop: 61878, Start Num: 29

Candidate Starts for 244\_106:

(Start: 29 @61588 has 124 MA's), (69, 61717), (75, 61741), (87, 61801), (95, 61849),

Gene: ABCat\_103 Start: 62792, Stop: 63082, Start Num: 29

Candidate Starts for ABCat\_103:

(Start: 29 @62792 has 124 MA's), (69, 62921), (75, 62945), (87, 63005), (95, 63053),

Gene: Acai\_67 Start: 46762, Stop: 47265, Start Num: 36

Candidate Starts for Acai\_67:

(Start: 36 @46762 has 29 MA's), (59, 46861), (91, 47020), (92, 47023), (107, 47077), (117, 47134), (119, 47161), (122, 47212),

Gene: AceofSpades\_30 Start: 22705, Stop: 23088, Start Num: 25

Candidate Starts for AceofSpades\_30:

(1, 22525), (Start: 19 @22684 has 1 MA's), (Start: 25 @22705 has 4 MA's), (82, 22939),

Gene: AddiRose\_68 Start: 43648, Stop: 43974, Start Num: 43

Candidate Starts for AddiRose\_68:

(2, 43444), (Start: 43 @43648 has 3 MA's), (51, 43690), (52, 43693), (63, 43765), (64, 43768), (73, 43804), (75, 43810), (78, 43825), (87, 43867), (97, 43918), (111, 43966),

Gene: Adnama\_110 Start: 62081, Stop: 62371, Start Num: 29

Candidate Starts for Adnama\_110:

(Start: 29 @62081 has 124 MA's), (69, 62210), (75, 62234), (87, 62294), (95, 62342),

Gene: Amao\_106 Start: 62234, Stop: 62521, Start Num: 29

Candidate Starts for Amao\_106:

(Start: 29 @62234 has 124 MA's), (69, 62363), (75, 62387), (87, 62447), (95, 62495),

Gene: Anandi\_77 Start: 47524, Stop: 48027, Start Num: 37

Candidate Starts for Anandi\_77:

(Start: 37 @47524 has 10 MA's), (Start: 46 @47548 has 3 MA's), (53, 47596), (57, 47617), (59, 47623), (65, 47653), (117, 47896), (122, 47974),

Gene: Arcadia\_76 Start: 45700, Stop: 46212, Start Num: 40

Candidate Starts for Arcadia\_76:

(Start: 40 @45700 has 22 MA's), (53, 45766), (54, 45769), (65, 45823), (94, 45967), (97, 45973), (103, 45994), (104, 45997),

Gene: AreFloNak\_73 Start: 46808, Stop: 47311, Start Num: 36

Candidate Starts for AreFloNak\_73:

(Start: 36 @46808 has 29 MA's), (59, 46907), (92, 47069), (107, 47123), (117, 47180), (122, 47258),

Gene: Argan\_70 Start: 44513, Stop: 45007, Start Num: 42

Candidate Starts for Argan\_70:

(Start: 42 @44513 has 3 MA's), (Start: 45 @44516 has 28 MA's), (51, 44558), (52, 44561), (86, 44729), (104, 44810), (118, 44888),

Gene: Argent26\_110 Start: 62005, Stop: 62295, Start Num: 29

Candidate Starts for Argent26\_110:

(Start: 29 @62005 has 124 MA's), (69, 62134), (75, 62158), (87, 62218), (95, 62266),

Gene: Arzan\_73 Start: 46217, Stop: 46693, Start Num: 45

Candidate Starts for Arzan\_73:

(Start: 45 @46217 has 28 MA's), (Start: 46 @46232 has 3 MA's), (60, 46313), (94, 46481), (124, 46661),

Gene: Asriel\_104 Start: 60418, Stop: 60708, Start Num: 29

Candidate Starts for Asriel\_104:

(Start: 29 @60418 has 124 MA's), (69, 60547), (75, 60571), (87, 60631), (95, 60679),

Gene: BaboJay\_105 Start: 62761, Stop: 63051, Start Num: 29

Candidate Starts for BaboJay\_105:

(Start: 29 @62761 has 124 MA's), (75, 62914), (87, 62974), (95, 63022),

Gene: BadStone\_103 Start: 62340, Stop: 62630, Start Num: 29

Candidate Starts for BadStone\_103:

(Start: 29 @62340 has 124 MA's), (69, 62469), (75, 62493), (87, 62553), (95, 62601),

Gene: Balomoji\_106 Start: 62201, Stop: 62491, Start Num: 29

Candidate Starts for Balomoji\_106:

(Start: 29 @62201 has 124 MA's), (69, 62330), (75, 62354), (87, 62414), (95, 62462),

Gene: Bantam\_109 Start: 70339, Stop: 70695, Start Num: 22

Candidate Starts for Bantam\_109:

(7, 70279), (Start: 22 @70339 has 2 MA's), (67, 70510), (75, 70546), (99, 70657), (100, 70666),

Gene: Barbarian\_105 Start: 60418, Stop: 60708, Start Num: 29

Candidate Starts for Barbarian\_105:

(Start: 29 @60418 has 124 MA's), (69, 60547), (75, 60571), (87, 60631), (95, 60679),

Gene: BarbieDoll\_77 Start: 46222, Stop: 46713, Start Num: 45

Candidate Starts for BarbieDoll\_77:

(Start: 42 @46219 has 3 MA's), (Start: 45 @46222 has 28 MA's), (51, 46264), (52, 46267), (80, 46405), (86, 46435), (89, 46450), (104, 46516), (121, 46648), (123, 46660),

Gene: Bask21\_106 Start: 61036, Stop: 61323, Start Num: 29

Candidate Starts for Bask21\_106:

(Start: 29 @61036 has 124 MA's), (69, 61165), (75, 61189), (87, 61249), (95, 61297),

Gene: Bench\_108 Start: 62762, Stop: 63052, Start Num: 29

Candidate Starts for Bench\_108:

(Start: 29 @62762 has 124 MA's), (69, 62891), (75, 62915), (87, 62975), (95, 63023),

Gene: BenitoAntonio\_75 Start: 45340, Stop: 45852, Start Num: 40

Candidate Starts for BenitoAntonio\_75:

(12, 45268), (Start: 40 @45340 has 22 MA's), (53, 45406), (54, 45409), (65, 45463), (94, 45607), (97, 45613), (103, 45634), (104, 45637), (123, 45781),

Gene: Benllo\_74 Start: 46018, Stop: 46530, Start Num: 40

Candidate Starts for Benllo\_74:

(Start: 40 @46018 has 22 MA's), (54, 46087), (65, 46141), (94, 46285), (97, 46291), (103, 46312), (104, 46315),

Gene: BigBubba\_106 Start: 61114, Stop: 61404, Start Num: 29

Candidate Starts for BigBubba\_106:

(Start: 29 @61114 has 124 MA's), (69, 61243), (75, 61267), (87, 61327), (95, 61375),

Gene: Biscute\_73 Start: 45871, Stop: 46365, Start Num: 42

Candidate Starts for Biscute\_73:

(Start: 42 @45871 has 3 MA's), (Start: 45 @45874 has 28 MA's), (51, 45916), (52, 45919), (80, 46057), (86, 46087), (89, 46102), (104, 46168), (121, 46300), (123, 46312),

Gene: BlackHoleSun\_75 Start: 44631, Stop: 45125, Start Num: 42

Candidate Starts for BlackHoleSun\_75:

(Start: 42 @44631 has 3 MA's), (Start: 45 @44634 has 28 MA's), (51, 44676), (52, 44679), (86, 44847), (104, 44928),

Gene: Boog\_71 Start: 44933, Stop: 45430, Start Num: 45

Candidate Starts for Boog\_71:

(Start: 23 @44900 has 2 MA's), (31, 44912), (33, 44918), (Start: 45 @44933 has 28 MA's), (Start: 46 @44948 has 3 MA's), (78, 45113), (101, 45221), (118, 45314),

Gene: Bouchard\_74 Start: 47398, Stop: 47901, Start Num: 36

Candidate Starts for Bouchard\_74:

(Start: 36 @47398 has 29 MA's), (48, 47428), (51, 47449), (53, 47470), (59, 47497), (67, 47533), (92, 47659), (107, 47713), (117, 47770), (119, 47797),

Gene: Bowling\_78 Start: 46295, Stop: 46807, Start Num: 40

Candidate Starts for Bowling\_78:

(Start: 40 @46295 has 22 MA's), (54, 46364), (65, 46418), (94, 46562), (97, 46568), (103, 46589),

Gene: Brewer\_102 Start: 60918, Stop: 61208, Start Num: 29

Candidate Starts for Brewer\_102:

(Start: 29 @60918 has 124 MA's), (69, 61047), (75, 61071), (87, 61131), (95, 61179),

Gene: Breylor17\_66 Start: 47201, Stop: 47704, Start Num: 36

Candidate Starts for Breylor17\_66:

(Start: 36 @47201 has 29 MA's), (59, 47300), (92, 47462), (107, 47516), (115, 47564), (117, 47573), (119, 47600), (122, 47651),

Gene: BronxBay\_72 Start: 45205, Stop: 45702, Start Num: 45

Candidate Starts for BronxBay\_72:

(Start: 23 @45172 has 2 MA's), (31, 45184), (33, 45190), (Start: 45 @45205 has 28 MA's), (Start: 46 @45220 has 3 MA's), (78, 45385), (101, 45493), (118, 45586),

Gene: Bruin\_103 Start: 61446, Stop: 61736, Start Num: 29

Candidate Starts for Bruin\_103:

(Start: 29 @61446 has 124 MA's), (69, 61575), (75, 61599), (87, 61659), (95, 61707),

Gene: Brunswick\_71 Start: 46642, Stop: 47145, Start Num: 36

Candidate Starts for Brunswick\_71:

(Start: 36 @46642 has 29 MA's), (59, 46741), (92, 46903), (107, 46957), (117, 47014), (119, 47041), (122, 47092),

Gene: Buck\_107 Start: 63262, Stop: 63552, Start Num: 29

Candidate Starts for Buck\_107:

(Start: 29 @63262 has 124 MA's), (69, 63391), (75, 63415), (87, 63475), (95, 63523),

Gene: Budgie\_112 Start: 62448, Stop: 62732, Start Num: 29  
Candidate Starts for Budgie\_112:  
(Start: 29 @62448 has 124 MA's), (69, 62577), (75, 62601), (87, 62661),

Gene: Cactus\_110 Start: 61700, Stop: 61990, Start Num: 29  
Candidate Starts for Cactus\_110:  
(Start: 29 @61700 has 124 MA's), (69, 61829), (75, 61853), (87, 61913), (95, 61961),

Gene: Camille\_57 Start: 40747, Stop: 41235, Start Num: 34  
Candidate Starts for Camille\_57:  
(Start: 34 @40747 has 2 MA's), (54, 40816), (76, 40915), (86, 40963), (92, 41002), (94, 41011), (101, 41035), (105, 41044), (115, 41080), (118, 41104), (120, 41149), (125, 41215),

Gene: Camille\_58 Start: 41232, Stop: 41567, Start Num: 27  
Candidate Starts for Camille\_58:  
(Start: 27 @41232 has 3 MA's), (Start: 42 @41253 has 3 MA's), (Start: 45 @41256 has 28 MA's), (65, 41376), (92, 41511), (94, 41520), (113, 41562),

Gene: CapnMurica\_67 Start: 47359, Stop: 47862, Start Num: 36  
Candidate Starts for CapnMurica\_67:  
(Start: 36 @47359 has 29 MA's), (59, 47458), (92, 47620), (107, 47674), (117, 47731), (119, 47758), (122, 47809),

Gene: CastorTray\_73 Start: 47393, Stop: 47896, Start Num: 36  
Candidate Starts for CastorTray\_73:  
(Start: 36 @47393 has 29 MA's), (59, 47492), (92, 47654), (107, 47708), (117, 47765), (119, 47792), (122, 47843),

Gene: Caterpillar\_69 Start: 46228, Stop: 46731, Start Num: 37  
Candidate Starts for Caterpillar\_69:  
(Start: 37 @46228 has 10 MA's), (53, 46300), (67, 46363), (76, 46402), (92, 46489), (117, 46600),

Gene: Cheesy\_77 Start: 45492, Stop: 46004, Start Num: 40  
Candidate Starts for Cheesy\_77:  
(Start: 40 @45492 has 22 MA's), (54, 45561), (65, 45615), (94, 45759), (97, 45765), (103, 45786), (104, 45789),

Gene: Chlochlo\_74 Start: 46925, Stop: 47428, Start Num: 36  
Candidate Starts for Chlochlo\_74:  
(Start: 36 @46925 has 29 MA's), (48, 46955), (51, 46976), (53, 46997), (59, 47024), (67, 47060), (92, 47186), (107, 47240), (117, 47297), (119, 47324), (122, 47375),

Gene: ChosenOne\_106 Start: 61646, Stop: 61936, Start Num: 29  
Candidate Starts for ChosenOne\_106:  
(Start: 29 @61646 has 124 MA's), (69, 61775), (75, 61799), (87, 61859), (95, 61907),

Gene: ChotaBhai\_106 Start: 62098, Stop: 62385, Start Num: 29  
Candidate Starts for ChotaBhai\_106:  
(Start: 29 @62098 has 124 MA's), (69, 62227), (75, 62251), (87, 62311), (95, 62359),

Gene: Circum\_78 Start: 46108, Stop: 46620, Start Num: 40  
Candidate Starts for Circum\_78:

(12, 46036), (Start: 40 @46108 has 22 MA's), (54, 46177), (65, 46231), (94, 46375), (97, 46381), (103, 46402), (104, 46405), (123, 46549),

Gene: Cjw1\_106 Start: 63455, Stop: 63745, Start Num: 29

Candidate Starts for Cjw1\_106:

(Start: 29 @63455 has 124 MA's), (69, 63584), (75, 63608), (87, 63668), (95, 63716),

Gene: Command613\_108 Start: 62194, Stop: 62484, Start Num: 29

Candidate Starts for Command613\_108:

(Start: 29 @62194 has 124 MA's), (69, 62323), (75, 62347), (87, 62407), (95, 62455),

Gene: Contagion\_102 Start: 61808, Stop: 62098, Start Num: 29

Candidate Starts for Contagion\_102:

(Start: 29 @61808 has 124 MA's), (69, 61937), (75, 61961), (87, 62021), (95, 62069),

Gene: Cookies\_103 Start: 61964, Stop: 62251, Start Num: 29

Candidate Starts for Cookies\_103:

(Start: 29 @61964 has 124 MA's), (69, 62093), (75, 62117), (87, 62177), (95, 62225),

Gene: Correa\_75 Start: 45066, Stop: 45578, Start Num: 40

Candidate Starts for Correa\_75:

(Start: 40 @45066 has 22 MA's), (54, 45135), (65, 45189), (94, 45333), (103, 45360),

Gene: Count\_91 Start: 59562, Stop: 59873, Start Num: 40

Candidate Starts for Count\_91:

(Start: 40 @59562 has 22 MA's), (53, 59631), (68, 59697), (77, 59745), (83, 59766),

Gene: Count\_90 Start: 59071, Stop: 59562, Start Num: 34

Candidate Starts for Count\_90:

(Start: 34 @59071 has 2 MA's), (47, 59098), (76, 59245), (77, 59254), (78, 59257), (101, 59368), (114, 59404), (116, 59416), (122, 59500),

Gene: CrystalP\_105 Start: 62698, Stop: 62988, Start Num: 29

Candidate Starts for CrystalP\_105:

(Start: 29 @62698 has 124 MA's), (69, 62827), (75, 62851), (87, 62911), (95, 62959),

Gene: Czyszczone1\_106 Start: 61801, Stop: 62091, Start Num: 29

Candidate Starts for Czyszczone1\_106:

(Start: 29 @61801 has 124 MA's), (69, 61930), (75, 61954), (87, 62014), (95, 62062),

Gene: Daddyjeff\_70 Start: 44061, Stop: 44387, Start Num: 43

Candidate Starts for Daddyjeff\_70:

(13, 43989), (Start: 28 @44040 has 1 MA's), (41, 44058), (Start: 43 @44061 has 3 MA's), (51, 44103), (52, 44106), (63, 44178), (64, 44181), (73, 44217), (75, 44223), (78, 44238), (87, 44280), (97, 44331), (102, 44349), (111, 44379),

Gene: Damascus\_58 Start: 42170, Stop: 42682, Start Num: 32

Candidate Starts for Damascus\_58:

(Start: 32 @42170 has 2 MA's), (Start: 40 @42182 has 22 MA's), (67, 42314), (76, 42353), (86, 42401), (101, 42473), (119, 42554),

Gene: Damascus\_59 Start: 42669, Stop: 42986, Start Num: 37

Candidate Starts for Damascus\_59:

(10, 42585), (15, 42612), (35, 42666), (Start: 37 @42669 has 10 MA's), (65, 42795), (71, 42822), (87, 42894), (92, 42930),

Gene: Darby\_67 Start: 46386, Stop: 46889, Start Num: 36

Candidate Starts for Darby\_67:

(Start: 36 @46386 has 29 MA's), (59, 46485), (92, 46647), (107, 46701), (117, 46758), (119, 46785), (122, 46836),

Gene: Daredevil\_104 Start: 67182, Stop: 67538, Start Num: 21

Candidate Starts for Daredevil\_104:

(Start: 21 @67182 has 2 MA's), (38, 67206), (62, 67329), (75, 67389), (99, 67500),

Gene: DatBoi\_107 Start: 69816, Stop: 70166, Start Num: 27

Candidate Starts for DatBoi\_107:

(4, 69714), (5, 69726), (Start: 27 @69816 has 3 MA's), (67, 69981), (75, 70017), (77, 70029), (88, 70077), (99, 70128), (100, 70137),

Gene: DevitoJr\_69 Start: 46771, Stop: 47274, Start Num: 36

Candidate Starts for DevitoJr\_69:

(Start: 36 @46771 has 29 MA's), (59, 46870), (107, 47086), (117, 47143), (119, 47170), (122, 47221),

Gene: Dinallo\_65 Start: 47651, Stop: 48154, Start Num: 36

Candidate Starts for Dinallo\_65:

(Start: 36 @47651 has 29 MA's), (59, 47750), (92, 47912), (107, 47966), (117, 48023), (119, 48050), (122, 48101),

Gene: DizzyRudy\_63 Start: 42556, Stop: 42873, Start Num: 37

Candidate Starts for DizzyRudy\_63:

(10, 42472), (15, 42499), (35, 42553), (Start: 37 @42556 has 10 MA's), (65, 42682), (74, 42721), (87, 42781), (92, 42817),

Gene: DizzyRudy\_62 Start: 42057, Stop: 42569, Start Num: 32

Candidate Starts for DizzyRudy\_62:

(Start: 32 @42057 has 2 MA's), (Start: 40 @42069 has 22 MA's), (52, 42120), (76, 42240), (86, 42288), (101, 42360), (119, 42441),

Gene: Djungelskog\_71 Start: 45207, Stop: 45704, Start Num: 45

Candidate Starts for Djungelskog\_71:

(Start: 23 @45174 has 2 MA's), (31, 45186), (33, 45192), (Start: 45 @45207 has 28 MA's), (Start: 46 @45222 has 3 MA's), (78, 45387), (101, 45495), (118, 45588),

Gene: DoctorDiddles\_105 Start: 61466, Stop: 61753, Start Num: 29

Candidate Starts for DoctorDiddles\_105:

(Start: 29 @61466 has 124 MA's), (69, 61595), (75, 61619), (87, 61679), (95, 61727),

Gene: DoctorPepper\_71 Start: 44909, Stop: 45406, Start Num: 45

Candidate Starts for DoctorPepper\_71:

(Start: 23 @44876 has 2 MA's), (31, 44888), (33, 44894), (Start: 45 @44909 has 28 MA's), (Start: 46 @44924 has 3 MA's), (78, 45089), (101, 45197), (118, 45290),

Gene: DrDrey\_106 Start: 63478, Stop: 63768, Start Num: 29

Candidate Starts for DrDrey\_106:

(Start: 29 @63478 has 124 MA's), (69, 63607), (75, 63631), (87, 63691), (95, 63739),

Gene: Dumbo\_105 Start: 61838, Stop: 62128, Start Num: 29

Candidate Starts for Dumbo\_105:

(Start: 29 @61838 has 124 MA's), (69, 61967), (75, 61991), (87, 62051), (95, 62099),

Gene: Dusk\_103 Start: 62000, Stop: 62290, Start Num: 29

Candidate Starts for Dusk\_103:

(Start: 29 @62000 has 124 MA's), (69, 62129), (75, 62153), (87, 62213), (95, 62261),

Gene: Dynamite\_76 Start: 45552, Stop: 46064, Start Num: 40

Candidate Starts for Dynamite\_76:

(Start: 40 @45552 has 22 MA's), (54, 45621), (65, 45675), (94, 45819), (97, 45825), (103, 45846),

Gene: Easy2Say\_106 Start: 62472, Stop: 62762, Start Num: 29

Candidate Starts for Easy2Say\_106:

(Start: 29 @62472 has 124 MA's), (69, 62601), (75, 62625), (87, 62685), (95, 62733),

Gene: Eevee\_69 Start: 47508, Stop: 47876, Start Num: 20

Candidate Starts for Eevee\_69:

(6, 47439), (16, 47490), (Start: 20 @47508 has 3 MA's), (Start: 29 @47529 has 124 MA's), (Start: 43 @47547 has 3 MA's), (Start: 46 @47562 has 3 MA's), (66, 47673), (71, 47700), (77, 47721), (82, 47739), (92, 47802), (111, 47868),

Gene: Egad\_72 Start: 45183, Stop: 45680, Start Num: 45

Candidate Starts for Egad\_72:

(Start: 23 @45150 has 2 MA's), (31, 45162), (33, 45168), (Start: 45 @45183 has 28 MA's), (Start: 46 @45198 has 3 MA's), (78, 45363), (101, 45471), (118, 45564),

Gene: ElephantMan\_70 Start: 47272, Stop: 47775, Start Num: 36

Candidate Starts for ElephantMan\_70:

(Start: 36 @47272 has 29 MA's), (59, 47371), (92, 47533), (107, 47587), (117, 47644), (119, 47671), (122, 47722),

Gene: Elite2014\_105 Start: 61645, Stop: 61935, Start Num: 29

Candidate Starts for Elite2014\_105:

(Start: 29 @61645 has 124 MA's), (69, 61774), (75, 61798), (87, 61858), (95, 61906),

Gene: Elph10\_105 Start: 61484, Stop: 61774, Start Num: 29

Candidate Starts for Elph10\_105:

(Start: 29 @61484 has 124 MA's), (69, 61613), (75, 61637), (87, 61697), (95, 61745),

Gene: Elsa\_76 Start: 45700, Stop: 46212, Start Num: 40

Candidate Starts for Elsa\_76:

(Start: 40 @45700 has 22 MA's), (53, 45766), (54, 45769), (65, 45823), (94, 45967), (97, 45973), (103, 45994), (104, 45997),

Gene: Elver\_134 Start: 71317, Stop: 71790, Start Num: 46

Candidate Starts for Elver\_134:

(38, 71296), (Start: 46 @71317 has 3 MA's), (53, 71365), (54, 71368), (55, 71374), (59, 71392), (65, 71422), (109, 71605), (123, 71734),

Gene: Emmina\_106 Start: 61423, Stop: 61713, Start Num: 29

Candidate Starts for Emmina\_106:

(Start: 29 @61423 has 124 MA's), (69, 61552), (75, 61576), (87, 61636), (95, 61684),

Gene: Eureka\_105 Start: 62611, Stop: 62901, Start Num: 29

Candidate Starts for Eureka\_105:

(Start: 29 @62611 has 124 MA's), (69, 62740), (75, 62764), (87, 62824), (95, 62872),

Gene: Filch\_107 Start: 61797, Stop: 62087, Start Num: 29

Candidate Starts for Filch\_107:

(Start: 29 @61797 has 124 MA's), (69, 61926), (75, 61950), (87, 62010), (95, 62058),

Gene: FireRed\_109 Start: 62887, Stop: 63177, Start Num: 29

Candidate Starts for FireRed\_109:

(Start: 29 @62887 has 124 MA's), (69, 63016), (75, 63040), (87, 63100), (95, 63148),

Gene: FiveHead\_33 Start: 22717, Stop: 23097, Start Num: 25

Candidate Starts for FiveHead\_33:

(8, 22657), (Start: 25 @22717 has 4 MA's), (82, 22948),

Gene: Flypotenuse\_102 Start: 61072, Stop: 61362, Start Num: 29

Candidate Starts for Flypotenuse\_102:

(Start: 29 @61072 has 124 MA's), (69, 61201), (75, 61225), (87, 61285), (95, 61333),

Gene: Gage\_108 Start: 62143, Stop: 62433, Start Num: 29

Candidate Starts for Gage\_108:

(Start: 29 @62143 has 124 MA's), (69, 62272), (75, 62296), (87, 62356), (95, 62404),

Gene: Gandionco\_130 Start: 70114, Stop: 70608, Start Num: 38

Candidate Starts for Gandionco\_130:

(38, 70114), (Start: 46 @70135 has 3 MA's), (53, 70183), (54, 70186), (55, 70192), (59, 70210), (65, 70240), (109, 70423), (123, 70552),

Gene: GantcherGoblin\_71 Start: 44575, Stop: 45066, Start Num: 45

Candidate Starts for GantcherGoblin\_71:

(Start: 42 @44572 has 3 MA's), (Start: 45 @44575 has 28 MA's), (51, 44617), (52, 44620), (86, 44788), (104, 44869), (118, 44947),

Gene: Gator\_104 Start: 61931, Stop: 62218, Start Num: 29

Candidate Starts for Gator\_104:

(Start: 29 @61931 has 124 MA's), (69, 62060), (75, 62084), (87, 62144), (95, 62192),

Gene: Gemini\_111 Start: 62522, Stop: 62812, Start Num: 29

Candidate Starts for Gemini\_111:

(Start: 29 @62522 has 124 MA's), (69, 62651), (75, 62675), (87, 62735), (95, 62783),

Gene: GermyBearimy\_81 Start: 47778, Stop: 48254, Start Num: 45

Candidate Starts for GermyBearimy\_81:

(Start: 45 @47778 has 28 MA's), (Start: 46 @47793 has 3 MA's), (60, 47874), (94, 48042), (124, 48222),

Gene: Giantsbane\_73 Start: 45925, Stop: 46428, Start Num: 36

Candidate Starts for Giantsbane\_73:

(Start: 36 @45925 has 29 MA's), (Start: 46 @45949 has 3 MA's), (48, 45955), (51, 45976), (53, 45997), (59, 46024), (67, 46060), (92, 46186), (117, 46297), (119, 46324),

Gene: Glexan\_105 Start: 62202, Stop: 62492, Start Num: 29

Candidate Starts for Glexan\_105:

(Start: 29 @62202 has 124 MA's), (69, 62331), (75, 62355), (87, 62415), (95, 62463),

Gene: GoCrazy\_73 Start: 44995, Stop: 45507, Start Num: 40

Candidate Starts for GoCrazy\_73:

(12, 44923), (Start: 40 @44995 has 22 MA's), (54, 45064), (65, 45118), (94, 45262), (97, 45268), (103, 45289), (104, 45292), (123, 45436),

Gene: Goku\_105 Start: 62340, Stop: 62630, Start Num: 29

Candidate Starts for Goku\_105:

(Start: 29 @62340 has 124 MA's), (69, 62469), (75, 62493), (87, 62553), (95, 62601),

Gene: GoldenSpark\_110 Start: 62005, Stop: 62295, Start Num: 29

Candidate Starts for GoldenSpark\_110:

(Start: 29 @62005 has 124 MA's), (69, 62134), (75, 62158), (87, 62218), (95, 62266),

Gene: Goldilocks\_109 Start: 61901, Stop: 62191, Start Num: 29

Candidate Starts for Goldilocks\_109:

(Start: 29 @61901 has 124 MA's), (69, 62030), (75, 62054), (87, 62114), (95, 62162),

Gene: GooberAzure\_109 Start: 62005, Stop: 62295, Start Num: 29

Candidate Starts for GooberAzure\_109:

(Start: 29 @62005 has 124 MA's), (69, 62134), (75, 62158), (87, 62218), (95, 62266),

Gene: Gordon\_67 Start: 47259, Stop: 47762, Start Num: 36

Candidate Starts for Gordon\_67:

(Start: 36 @47259 has 29 MA's), (59, 47358), (92, 47520), (107, 47574), (117, 47631), (119, 47658), (122, 47709),

Gene: HanKaySha\_106 Start: 62193, Stop: 62483, Start Num: 29

Candidate Starts for HanKaySha\_106:

(Start: 29 @62193 has 124 MA's), (69, 62322), (75, 62346), (87, 62406), (95, 62454),

Gene: Hankly\_76 Start: 45190, Stop: 45702, Start Num: 40

Candidate Starts for Hankly\_76:

(Start: 40 @45190 has 22 MA's), (54, 45259), (65, 45313), (94, 45457), (97, 45463), (103, 45484),

Gene: Harella\_106 Start: 62718, Stop: 63008, Start Num: 29

Candidate Starts for Harella\_106:

(Start: 29 @62718 has 124 MA's), (69, 62847), (75, 62871), (87, 62931), (95, 62979),

Gene: Heisenberger\_75 Start: 44957, Stop: 45469, Start Num: 40

Candidate Starts for Heisenberger\_75:

(12, 44885), (Start: 40 @44957 has 22 MA's), (54, 45026), (65, 45080), (94, 45224), (97, 45230), (103, 45251), (104, 45254),

Gene: Hemma\_68 Start: 44675, Stop: 45178, Start Num: 36

Candidate Starts for Hemma\_68:

(Start: 36 @44675 has 29 MA's), (53, 44747), (70, 44816), (76, 44849), (85, 44888), (87, 44900), (107, 44990), (122, 45125),

Gene: Henry\_103 Start: 62003, Stop: 62293, Start Num: 29  
Candidate Starts for Henry\_103:  
(Start: 29 @62003 has 124 MA's), (69, 62132), (75, 62156), (87, 62216), (95, 62264),

Gene: HerbBucket\_70 Start: 44915, Stop: 45412, Start Num: 45  
Candidate Starts for HerbBucket\_70:  
(Start: 23 @44882 has 2 MA's), (31, 44894), (33, 44900), (Start: 45 @44915 has 28 MA's), (Start: 46 @44930 has 3 MA's), (78, 45095), (101, 45203), (118, 45296),

Gene: Highbury\_102 Start: 60350, Stop: 60640, Start Num: 29  
Candidate Starts for Highbury\_102:  
(Start: 29 @60350 has 124 MA's), (69, 60479), (75, 60503), (87, 60563), (95, 60611),

Gene: Holt\_111 Start: 62419, Stop: 62709, Start Num: 29  
Candidate Starts for Holt\_111:  
(Start: 29 @62419 has 124 MA's), (69, 62548), (75, 62572), (87, 62632), (95, 62680),

Gene: Hoonter\_109 Start: 62498, Stop: 62788, Start Num: 29  
Candidate Starts for Hoonter\_109:  
(Start: 29 @62498 has 124 MA's), (69, 62627), (75, 62651), (87, 62711), (95, 62759),

Gene: Hokey\_106 Start: 62804, Stop: 63094, Start Num: 29  
Candidate Starts for Hokey\_106:  
(Start: 29 @62804 has 124 MA's), (69, 62933), (75, 62957), (87, 63017), (95, 63065),

Gene: HufflyPuff\_108 Start: 63113, Stop: 63403, Start Num: 29  
Candidate Starts for HufflyPuff\_108:  
(Start: 29 @63113 has 124 MA's), (69, 63242), (75, 63266), (87, 63326), (95, 63374),

Gene: IHOP\_104 Start: 61721, Stop: 62011, Start Num: 29  
Candidate Starts for IHOP\_104:  
(Start: 29 @61721 has 124 MA's), (69, 61850), (75, 61874), (87, 61934), (95, 61982),

Gene: Icee\_107 Start: 61529, Stop: 61819, Start Num: 29  
Candidate Starts for Icee\_107:  
(Start: 29 @61529 has 124 MA's), (69, 61658), (75, 61682), (87, 61742), (95, 61790),

Gene: Inca\_103 Start: 60210, Stop: 60500, Start Num: 29  
Candidate Starts for Inca\_103:  
(Start: 29 @60210 has 124 MA's), (69, 60339), (75, 60363), (87, 60423), (95, 60471),

Gene: Ingrid\_76 Start: 47223, Stop: 47726, Start Num: 37  
Candidate Starts for Ingrid\_76:  
(Start: 37 @47223 has 10 MA's), (53, 47295), (67, 47358), (76, 47397), (90, 47469), (92, 47484),

Gene: Inked\_75 Start: 47849, Stop: 48352, Start Num: 37  
Candidate Starts for Inked\_75:  
(Start: 37 @47849 has 10 MA's), (53, 47921), (67, 47984), (76, 48023), (90, 48095), (92, 48110),

Gene: Issa\_65 Start: 46433, Stop: 46936, Start Num: 36  
Candidate Starts for Issa\_65:  
(Start: 36 @46433 has 29 MA's), (59, 46532), (92, 46694), (107, 46748), (117, 46805), (119, 46832), (122, 46883),

Gene: IttyBittyPiggy\_27 Start: 22317, Stop: 22682, Start Num: 28  
Candidate Starts for IttyBittyPiggy\_27:  
(3, 22149), (Start: 28 @22317 has 1 MA's), (67, 22482), (76, 22521), (78, 22533),

Gene: JEGGS\_75 Start: 45036, Stop: 45548, Start Num: 40  
Candidate Starts for JEGGS\_75:  
(12, 44964), (Start: 40 @45036 has 22 MA's), (54, 45105), (65, 45159), (94, 45303), (97, 45309), (103, 45330), (104, 45333),

Gene: JasmineDragon\_30 Start: 22617, Stop: 23000, Start Num: 25  
Candidate Starts for JasmineDragon\_30:  
(1, 22437), (Start: 25 @22617 has 4 MA's), (70, 22791), (82, 22851),

Gene: Jazzy4900\_70 Start: 47081, Stop: 47557, Start Num: 45  
Candidate Starts for Jazzy4900\_70:  
(Start: 45 @47081 has 28 MA's), (60, 47177), (94, 47345), (124, 47525),

Gene: JeNeSaisPas\_128 Start: 70710, Stop: 71204, Start Num: 38  
Candidate Starts for JeNeSaisPas\_128:  
(38, 70710), (Start: 46 @70731 has 3 MA's), (53, 70779), (54, 70782), (55, 70788), (59, 70806), (65, 70836), (109, 71019), (123, 71148),

Gene: JeTaime\_104 Start: 61629, Stop: 61919, Start Num: 29  
Candidate Starts for JeTaime\_104:  
(Start: 29 @61629 has 124 MA's), (69, 61758), (75, 61782), (87, 61842), (95, 61890),

Gene: Jeremy4pt0\_71 Start: 44904, Stop: 45401, Start Num: 45  
Candidate Starts for Jeremy4pt0\_71:  
(Start: 23 @44871 has 2 MA's), (31, 44883), (33, 44889), (Start: 45 @44904 has 28 MA's), (Start: 46 @44919 has 3 MA's), (78, 45084), (101, 45192), (118, 45285),

Gene: JoeDirt\_76 Start: 51825, Stop: 52229, Start Num: 50  
Candidate Starts for JoeDirt\_76:  
(Start: 23 @51750 has 2 MA's), (49, 51816), (Start: 50 @51825 has 2 MA's), (58, 51876), (61, 51894), (75, 51951), (76, 51954), (87, 52011), (93, 52053), (96, 52062), (98, 52065), (109, 52110), (110, 52113),

Gene: JohnThicc\_32 Start: 22717, Stop: 23097, Start Num: 25  
Candidate Starts for JohnThicc\_32:  
(8, 22657), (Start: 25 @22717 has 4 MA's), (82, 22948),

Gene: JoyLin\_69 Start: 47628, Stop: 47996, Start Num: 20  
Candidate Starts for JoyLin\_69:  
(6, 47559), (16, 47610), (Start: 20 @47628 has 3 MA's), (Start: 29 @47649 has 124 MA's), (Start: 43 @47667 has 3 MA's), (Start: 46 @47682 has 3 MA's), (66, 47793), (71, 47820), (77, 47841), (82, 47859), (92, 47922), (111, 47988),

Gene: Kanye\_103 Start: 62254, Stop: 62544, Start Num: 29  
Candidate Starts for Kanye\_103:  
(Start: 29 @62254 has 124 MA's), (69, 62383), (75, 62407), (87, 62467), (95, 62515),

Gene: Kardesai\_76 Start: 45309, Stop: 45821, Start Num: 40

Candidate Starts for Kardesai\_76:

(12, 45237), (Start: 40 @45309 has 22 MA's), (54, 45378), (65, 45432), (94, 45576), (97, 45582), (103, 45603), (104, 45606), (123, 45750),

Gene: KeaneyLin\_72 Start: 44995, Stop: 45507, Start Num: 40

Candidate Starts for KeaneyLin\_72:

(12, 44923), (Start: 40 @44995 has 22 MA's), (54, 45064), (65, 45118), (94, 45262), (97, 45268), (103, 45289), (104, 45292), (123, 45436),

Gene: KevinMinion\_71 Start: 45464, Stop: 45958, Start Num: 42

Candidate Starts for KevinMinion\_71:

(Start: 42 @45464 has 3 MA's), (Start: 45 @45467 has 28 MA's), (51, 45509), (52, 45512), (86, 45680), (104, 45761), (118, 45839),

Gene: Kimchi\_110 Start: 62146, Stop: 62436, Start Num: 29

Candidate Starts for Kimchi\_110:

(Start: 29 @62146 has 124 MA's), (69, 62275), (75, 62299), (87, 62359), (95, 62407),

Gene: Kinny\_76 Start: 46701, Stop: 47192, Start Num: 45

Candidate Starts for Kinny\_76:

(Start: 42 @46698 has 3 MA's), (Start: 45 @46701 has 28 MA's), (51, 46743), (52, 46746), (80, 46884), (86, 46914), (89, 46929), (104, 46995), (121, 47127), (123, 47139),

Gene: Kostya\_106 Start: 61823, Stop: 62113, Start Num: 29

Candidate Starts for Kostya\_106:

(Start: 29 @61823 has 124 MA's), (69, 61952), (75, 61976), (87, 62036), (95, 62084),

Gene: Kureo\_131 Start: 70331, Stop: 70804, Start Num: 46

Candidate Starts for Kureo\_131:

(38, 70310), (Start: 46 @70331 has 3 MA's), (53, 70379), (54, 70382), (55, 70388), (59, 70406), (65, 70436), (109, 70619), (123, 70748),

Gene: LadyAstra\_31 Start: 22651, Stop: 23034, Start Num: 25

Candidate Starts for LadyAstra\_31:

(8, 22591), (Start: 25 @22651 has 4 MA's), (82, 22885),

Gene: Leathea\_73 Start: 44483, Stop: 44992, Start Num: 45

Candidate Starts for Leathea\_73:

(30, 44459), (Start: 32 @44465 has 2 MA's), (Start: 42 @44480 has 3 MA's), (Start: 45 @44483 has 28 MA's), (52, 44528), (74, 44642), (86, 44696), (104, 44777), (112, 44801), (115, 44831),

Gene: Lewando\_77 Start: 46439, Stop: 46930, Start Num: 45

Candidate Starts for Lewando\_77:

(Start: 42 @46436 has 3 MA's), (Start: 45 @46439 has 28 MA's), (51, 46481), (52, 46484), (80, 46622), (86, 46652), (89, 46667), (104, 46733), (121, 46865), (123, 46877),

Gene: LilHuddy\_74 Start: 47051, Stop: 47554, Start Num: 36

Candidate Starts for LilHuddy\_74:

(Start: 36 @47051 has 29 MA's), (48, 47081), (51, 47102), (53, 47123), (59, 47150), (67, 47186), (92, 47312), (107, 47366), (117, 47423), (119, 47450),

Gene: Lilac\_107 Start: 62947, Stop: 63237, Start Num: 29

Candidate Starts for Lilac\_107:

(Start: 29 @62947 has 124 MA's), (69, 63076), (75, 63100), (87, 63160), (95, 63208),

Gene: Lilizi\_106 Start: 62233, Stop: 62523, Start Num: 29

Candidate Starts for Lilizi\_106:

(Start: 29 @62233 has 124 MA's), (69, 62362), (75, 62386), (87, 62446), (95, 62494),

Gene: Lilpickle\_105 Start: 61645, Stop: 61935, Start Num: 29

Candidate Starts for Lilpickle\_105:

(Start: 29 @61645 has 124 MA's), (69, 61774), (75, 61798), (87, 61858), (95, 61906),

Gene: Linda\_72 Start: 45202, Stop: 45699, Start Num: 45

Candidate Starts for Linda\_72:

(Start: 23 @45169 has 2 MA's), (31, 45181), (33, 45187), (Start: 45 @45202 has 28 MA's), (Start: 46 @45217 has 3 MA's), (78, 45382), (101, 45490), (118, 45583),

Gene: Loretta\_72 Start: 47223, Stop: 47726, Start Num: 37

Candidate Starts for Loretta\_72:

(Start: 37 @47223 has 10 MA's), (53, 47295), (67, 47358), (76, 47397), (90, 47469), (92, 47484),

Gene: LucySwiss\_70 Start: 46378, Stop: 46881, Start Num: 36

Candidate Starts for LucySwiss\_70:

(Start: 36 @46378 has 29 MA's), (59, 46477), (92, 46639), (107, 46693), (119, 46777), (122, 46828),

Gene: MISSy\_107 Start: 62930, Stop: 63220, Start Num: 29

Candidate Starts for MISSy\_107:

(Start: 29 @62930 has 124 MA's), (69, 63059), (75, 63083), (87, 63143), (95, 63191),

Gene: MPhalcon\_107 Start: 62348, Stop: 62638, Start Num: 29

Candidate Starts for MPhalcon\_107:

(Start: 29 @62348 has 124 MA's), (69, 62477), (75, 62501), (87, 62561), (95, 62609),

Gene: MadamMonkfish\_105 Start: 61655, Stop: 61945, Start Num: 29

Candidate Starts for MadamMonkfish\_105:

(Start: 29 @61655 has 124 MA's), (69, 61784), (75, 61808), (87, 61868), (95, 61916),

Gene: Makai\_73 Start: 47336, Stop: 47839, Start Num: 36

Candidate Starts for Makai\_73:

(Start: 36 @47336 has 29 MA's), (Start: 46 @47360 has 3 MA's), (51, 47387), (59, 47435), (67, 47471), (92, 47597), (107, 47651), (117, 47708), (119, 47735), (122, 47786),

Gene: Manda\_107 Start: 62385, Stop: 62675, Start Num: 29

Candidate Starts for Manda\_107:

(Start: 29 @62385 has 124 MA's), (69, 62514), (75, 62538), (87, 62598), (95, 62646),

Gene: Mardi\_74 Start: 45219, Stop: 45710, Start Num: 45

Candidate Starts for Mardi\_74:

(Start: 42 @45216 has 3 MA's), (Start: 45 @45219 has 28 MA's), (51, 45261), (52, 45264), (86, 45432), (104, 45513),

Gene: Marianna39\_131 Start: 70740, Stop: 71213, Start Num: 46

Candidate Starts for Marianna39\_131:

(38, 70719), (Start: 46 @70740 has 3 MA's), (53, 70788), (54, 70791), (55, 70797), (59, 70815), (65, 70845), (109, 71028), (123, 71157),

Gene: Marshmallow\_103 Start: 62343, Stop: 62633, Start Num: 29  
Candidate Starts for Marshmallow\_103:  
(Start: 29 @62343 has 124 MA's), (69, 62472), (75, 62496), (87, 62556), (95, 62604),

Gene: Maxxinista\_107 Start: 62132, Stop: 62422, Start Num: 29  
Candidate Starts for Maxxinista\_107:  
(Start: 29 @62132 has 124 MA's), (69, 62261), (75, 62285), (87, 62345), (95, 62393),

Gene: MediumFry\_69 Start: 46566, Stop: 47069, Start Num: 37  
Candidate Starts for MediumFry\_69:  
(Start: 37 @46566 has 10 MA's), (53, 46638), (67, 46701), (76, 46740), (92, 46827), (117, 46938),

Gene: Mema\_57 Start: 44587, Stop: 45072, Start Num: 34  
Candidate Starts for Mema\_57:  
(Start: 34 @44587 has 2 MA's), (54, 44656), (86, 44803), (101, 44875), (119, 44956),

Gene: Mema\_58 Start: 45072, Stop: 45413, Start Num: 24  
Candidate Starts for Mema\_58:  
(24, 45072), (Start: 42 @45099 has 3 MA's), (65, 45222),

Gene: Michelle\_72 Start: 45171, Stop: 45701, Start Num: 23  
Candidate Starts for Michelle\_72:  
(Start: 23 @45171 has 2 MA's), (31, 45183), (33, 45189), (Start: 45 @45204 has 28 MA's), (Start: 46 @45219 has 3 MA's), (78, 45384), (101, 45492), (118, 45585),

Gene: Mindy\_105 Start: 61664, Stop: 61954, Start Num: 29  
Candidate Starts for Mindy\_105:  
(Start: 29 @61664 has 124 MA's), (69, 61793), (75, 61817), (87, 61877), (95, 61925),

Gene: MiniBagel\_69 Start: 47363, Stop: 47866, Start Num: 36  
Candidate Starts for MiniBagel\_69:  
(Start: 36 @47363 has 29 MA's), (53, 47435), (59, 47462), (92, 47624), (107, 47678), (117, 47735), (119, 47762), (122, 47813),

Gene: MiniMommy\_30 Start: 22618, Stop: 23001, Start Num: 25  
Candidate Starts for MiniMommy\_30:  
(1, 22438), (Start: 25 @22618 has 4 MA's), (70, 22792), (82, 22852),

Gene: Miniwave\_101 Start: 61841, Stop: 62131, Start Num: 29  
Candidate Starts for Miniwave\_101:  
(Start: 29 @61841 has 124 MA's), (69, 61970), (75, 61994), (87, 62054), (95, 62102),

Gene: Misfit\_107 Start: 63444, Stop: 63734, Start Num: 29  
Candidate Starts for Misfit\_107:  
(Start: 29 @63444 has 124 MA's), (69, 63573), (75, 63597), (87, 63657), (95, 63705),

Gene: Moldemort\_108 Start: 62113, Stop: 62403, Start Num: 29  
Candidate Starts for Moldemort\_108:  
(Start: 29 @62113 has 124 MA's), (69, 62242), (75, 62266), (87, 62326), (95, 62374),

Gene: Mollymur\_109 Start: 70923, Stop: 71270, Start Num: 27  
Candidate Starts for Mollymur\_109:

(4, 70821), (5, 70833), (Start: 27 @70923 has 3 MA's), (67, 71088), (79, 71142), (88, 71184), (99, 71235),

Gene: Mooshroom\_77 Start: 45309, Stop: 45821, Start Num: 40

Candidate Starts for Mooshroom\_77:

(12, 45237), (Start: 40 @45309 has 22 MA's), (54, 45378), (65, 45432), (94, 45576), (97, 45582), (103, 45603), (104, 45606), (123, 45750),

Gene: Mosby\_102 Start: 61808, Stop: 62098, Start Num: 29

Candidate Starts for Mosby\_102:

(Start: 29 @61808 has 124 MA's), (69, 61937), (75, 61961), (87, 62021), (95, 62069),

Gene: MrAaronian\_72 Start: 45204, Stop: 45701, Start Num: 45

Candidate Starts for MrAaronian\_72:

(Start: 23 @45171 has 2 MA's), (31, 45183), (33, 45189), (Start: 45 @45204 has 28 MA's), (Start: 46 @45219 has 3 MA's), (78, 45384), (101, 45492), (118, 45585),

Gene: Mudcat\_72 Start: 46394, Stop: 46906, Start Num: 40

Candidate Starts for Mudcat\_72:

(12, 46322), (Start: 40 @46394 has 22 MA's), (54, 46463), (65, 46517), (94, 46661), (97, 46667), (103, 46688), (104, 46691),

Gene: Muglass\_75 Start: 45778, Stop: 46269, Start Num: 45

Candidate Starts for Muglass\_75:

(Start: 42 @45775 has 3 MA's), (Start: 45 @45778 has 28 MA's), (51, 45820), (52, 45823), (80, 45961), (86, 45991), (89, 46006), (104, 46072), (121, 46204), (123, 46216),

Gene: Murica\_109 Start: 64147, Stop: 64437, Start Num: 29

Candidate Starts for Murica\_109:

(Start: 29 @64147 has 124 MA's), (69, 64276), (75, 64300), (87, 64360), (95, 64408),

Gene: Murphy\_105 Start: 62505, Stop: 62795, Start Num: 29

Candidate Starts for Murphy\_105:

(Start: 29 @62505 has 124 MA's), (69, 62634), (75, 62658), (87, 62718), (95, 62766),

Gene: Myrale\_106 Start: 62482, Stop: 62772, Start Num: 29

Candidate Starts for Myrale\_106:

(Start: 29 @62482 has 124 MA's), (69, 62611), (75, 62635), (87, 62695), (95, 62743),

Gene: Nala\_108 Start: 62857, Stop: 63147, Start Num: 29

Candidate Starts for Nala\_108:

(Start: 29 @62857 has 124 MA's), (69, 62986), (75, 63010), (87, 63070), (95, 63118),

Gene: NapoleonB\_77 Start: 45552, Stop: 46064, Start Num: 40

Candidate Starts for NapoleonB\_77:

(Start: 40 @45552 has 22 MA's), (54, 45621), (65, 45675), (94, 45819), (97, 45825), (103, 45846),

Gene: Nason\_76 Start: 45700, Stop: 46212, Start Num: 40

Candidate Starts for Nason\_76:

(Start: 40 @45700 has 22 MA's), (53, 45766), (54, 45769), (65, 45823), (94, 45967), (97, 45973), (103, 45994), (104, 45997),

Gene: Natasha\_75 Start: 45514, Stop: 46011, Start Num: 45

Candidate Starts for Natasha\_75:

(Start: 45 @45514 has 28 MA's), (54, 45580), (78, 45694), (85, 45721), (100, 45796), (108, 45826), (118, 45895),

Gene: Navi1117\_79 Start: 46821, Stop: 47384, Start Num: 11

Candidate Starts for Navi1117\_79:

(9, 46803), (Start: 11 @46821 has 1 MA's), (44, 46899), (126, 47376),

Gene: Navi1117\_76 Start: 45655, Stop: 46146, Start Num: 45

Candidate Starts for Navi1117\_76:

(Start: 42 @45652 has 3 MA's), (Start: 45 @45655 has 28 MA's), (51, 45697), (52, 45700), (86, 45868), (104, 45949), (118, 46027),

Gene: NelitzaMV\_103 Start: 60830, Stop: 61120, Start Num: 29

Candidate Starts for NelitzaMV\_103:

(Start: 29 @60830 has 124 MA's), (69, 60959), (75, 60983), (87, 61043), (95, 61091),

Gene: Nightmare\_70 Start: 47676, Stop: 48179, Start Num: 36

Candidate Starts for Nightmare\_70:

(Start: 36 @47676 has 29 MA's), (59, 47775), (92, 47937), (107, 47991), (117, 48048), (122, 48126),

Gene: Niktson\_70 Start: 47272, Stop: 47775, Start Num: 36

Candidate Starts for Niktson\_70:

(Start: 36 @47272 has 29 MA's), (59, 47371), (92, 47533), (107, 47587), (117, 47644), (119, 47671), (122, 47722),

Gene: Nimrod\_106 Start: 62491, Stop: 62781, Start Num: 29

Candidate Starts for Nimrod\_106:

(Start: 29 @62491 has 124 MA's), (69, 62620), (75, 62644), (87, 62704), (95, 62752),

Gene: Nivinsha\_72 Start: 46808, Stop: 47311, Start Num: 36

Candidate Starts for Nivinsha\_72:

(Start: 36 @46808 has 29 MA's), (59, 46907), (92, 47069), (107, 47123), (117, 47180), (122, 47258),

Gene: NoSleep\_106 Start: 61665, Stop: 61955, Start Num: 29

Candidate Starts for NoSleep\_106:

(Start: 29 @61665 has 124 MA's), (69, 61794), (75, 61818), (87, 61878), (95, 61926),

Gene: OhShagHennessy\_74 Start: 50528, Stop: 50932, Start Num: 50

Candidate Starts for OhShagHennessy\_74:

(Start: 23 @50453 has 2 MA's), (49, 50519), (Start: 50 @50528 has 2 MA's), (58, 50579), (61, 50597), (75, 50654), (76, 50657), (87, 50714), (93, 50756), (96, 50765), (98, 50768), (109, 50813), (110, 50816),

Gene: Onestar\_71 Start: 45345, Stop: 45842, Start Num: 45

Candidate Starts for Onestar\_71:

(Start: 45 @45345 has 28 MA's), (78, 45525), (81, 45534), (101, 45633), (107, 45654), (118, 45726),

Gene: Origami\_31 Start: 22651, Stop: 23034, Start Num: 25

Candidate Starts for Origami\_31:

(8, 22591), (Start: 25 @22651 has 4 MA's), (82, 22885),

Gene: OrionPax\_104 Start: 61738, Stop: 62028, Start Num: 29

Candidate Starts for OrionPax\_104:

(Start: 29 @61738 has 124 MA's), (69, 61867), (75, 61891), (87, 61951), (95, 61999),

Gene: Paella\_134 Start: 71880, Stop: 72353, Start Num: 46

Candidate Starts for Paella\_134:

(38, 71859), (Start: 46 @71880 has 3 MA's), (53, 71928), (54, 71931), (55, 71937), (59, 71955), (65, 71985), (109, 72168), (123, 72297),

Gene: Paperbeatsrock\_105 Start: 62519, Stop: 62809, Start Num: 29

Candidate Starts for Paperbeatsrock\_105:

(Start: 29 @62519 has 124 MA's), (69, 62648), (75, 62672), (87, 62732), (95, 62780),

Gene: Pat3\_103 Start: 61036, Stop: 61323, Start Num: 29

Candidate Starts for Pat3\_103:

(Start: 29 @61036 has 124 MA's), (69, 61165), (75, 61189), (87, 61249), (95, 61297),

Gene: Phaby\_75 Start: 47582, Stop: 48085, Start Num: 36

Candidate Starts for Phaby\_75:

(Start: 36 @47582 has 29 MA's), (48, 47612), (51, 47633), (53, 47654), (59, 47681), (67, 47717), (92, 47843), (107, 47897), (117, 47954), (119, 47981),

Gene: Phaila\_73 Start: 44697, Stop: 45188, Start Num: 45

Candidate Starts for Phaila\_73:

(Start: 42 @44694 has 3 MA's), (Start: 45 @44697 has 28 MA's), (51, 44739), (52, 44742), (86, 44910), (104, 44991), (118, 45069),

Gene: Phaja\_104 Start: 61723, Stop: 62013, Start Num: 29

Candidate Starts for Phaja\_104:

(Start: 29 @61723 has 124 MA's), (69, 61852), (75, 61876), (87, 61936), (95, 61984),

Gene: Pharsalus\_103 Start: 62218, Stop: 62508, Start Num: 29

Candidate Starts for Pharsalus\_103:

(Start: 29 @62218 has 124 MA's), (69, 62347), (75, 62371), (87, 62431), (95, 62479),

Gene: PhatBacter\_109 Start: 62887, Stop: 63177, Start Num: 29

Candidate Starts for PhatBacter\_109:

(Start: 29 @62887 has 124 MA's), (69, 63016), (75, 63040), (87, 63100), (95, 63148),

Gene: Phaux\_108 Start: 63447, Stop: 63737, Start Num: 29

Candidate Starts for Phaux\_108:

(Start: 29 @63447 has 124 MA's), (69, 63576), (75, 63600), (87, 63660), (95, 63708),

Gene: Phrux\_102 Start: 61525, Stop: 61815, Start Num: 29

Candidate Starts for Phrux\_102:

(Start: 29 @61525 has 124 MA's), (69, 61654), (75, 61678), (87, 61738), (95, 61786),

Gene: Pippin15\_70 Start: 44587, Stop: 44967, Start Num: 19

Candidate Starts for Pippin15\_70:

(Start: 19 @44587 has 1 MA's), (26, 44605), (Start: 29 @44608 has 124 MA's), (39, 44626), (Start: 43 @44629 has 3 MA's), (56, 44716), (71, 44782), (77, 44803), (78, 44806), (82, 44821), (84, 44833), (92, 44884), (106, 44932), (111, 44950),

Gene: PoeMe\_73 Start: 45187, Stop: 45678, Start Num: 45

Candidate Starts for PoeMe\_73:

(Start: 42 @45184 has 3 MA's), (Start: 45 @45187 has 28 MA's), (51, 45229), (52, 45232), (86, 45400), (104, 45481), (118, 45559),

Gene: Porky\_104 Start: 61269, Stop: 61559, Start Num: 29

Candidate Starts for Porky\_104:

(Start: 29 @61269 has 124 MA's), (69, 61398), (75, 61422), (87, 61482), (95, 61530),

Gene: Powelldog\_75 Start: 45923, Stop: 46420, Start Num: 45

Candidate Starts for Powelldog\_75:

(17, 45860), (Start: 23 @45890 has 2 MA's), (31, 45902), (Start: 45 @45923 has 28 MA's), (54, 45989), (58, 46010), (59, 46013), (78, 46103), (85, 46130), (117, 46289),

Gene: ProfFrink\_72 Start: 45182, Stop: 45679, Start Num: 45

Candidate Starts for ProfFrink\_72:

(Start: 23 @45149 has 2 MA's), (31, 45161), (33, 45167), (Start: 45 @45182 has 28 MA's), (Start: 46 @45197 has 3 MA's), (78, 45362), (101, 45470), (118, 45563),

Gene: Pumpkin\_107 Start: 61865, Stop: 62155, Start Num: 29

Candidate Starts for Pumpkin\_107:

(Start: 29 @61865 has 124 MA's), (69, 61994), (75, 62018), (87, 62078), (95, 62126),

Gene: Qui\_134 Start: 71880, Stop: 72353, Start Num: 46

Candidate Starts for Qui\_134:

(38, 71859), (Start: 46 @71880 has 3 MA's), (53, 71928), (54, 71931), (55, 71937), (59, 71955), (65, 71985), (109, 72168), (123, 72297),

Gene: Rakim\_107 Start: 61934, Stop: 62221, Start Num: 29

Candidate Starts for Rakim\_107:

(Start: 29 @61934 has 124 MA's), (69, 62063), (75, 62087), (87, 62147), (95, 62195),

Gene: Raunak\_73 Start: 44844, Stop: 45341, Start Num: 45

Candidate Starts for Raunak\_73:

(Start: 23 @44811 has 2 MA's), (31, 44823), (33, 44829), (Start: 45 @44844 has 28 MA's), (Start: 46 @44859 has 3 MA's), (78, 45024), (101, 45132), (118, 45225),

Gene: Renaldo\_81 Start: 46660, Stop: 47151, Start Num: 45

Candidate Starts for Renaldo\_81:

(Start: 42 @46657 has 3 MA's), (Start: 45 @46660 has 28 MA's), (51, 46702), (52, 46705), (80, 46843), (86, 46873), (89, 46888), (104, 46954), (121, 47086), (123, 47098),

Gene: Rimmer\_104 Start: 62324, Stop: 62614, Start Num: 29

Candidate Starts for Rimmer\_104:

(Start: 29 @62324 has 124 MA's), (69, 62453), (75, 62477), (87, 62537), (95, 62585),

Gene: RiverMonster\_105 Start: 62420, Stop: 62710, Start Num: 29

Candidate Starts for RiverMonster\_105:

(Start: 29 @62420 has 124 MA's), (69, 62549), (75, 62573), (87, 62633), (95, 62681),

Gene: RustyBoy\_76 Start: 45713, Stop: 46210, Start Num: 45

Candidate Starts for RustyBoy\_76:

(Start: 45 @45713 has 28 MA's), (54, 45779), (78, 45893), (85, 45920), (100, 45995), (108, 46025), (118, 46094),

Gene: Saints25\_102 Start: 60350, Stop: 60640, Start Num: 29

Candidate Starts for Saints25\_102:

(Start: 29 @60350 has 124 MA's), (69, 60479), (75, 60503), (87, 60563), (95, 60611),

Gene: Salk\_72 Start: 45202, Stop: 45699, Start Num: 45

Candidate Starts for Salk\_72:

(Start: 23 @45169 has 2 MA's), (31, 45181), (33, 45187), (Start: 45 @45202 has 28 MA's), (Start: 46 @45217 has 3 MA's), (78, 45382), (101, 45490), (118, 45583),

Gene: Sassay\_101 Start: 60770, Stop: 61060, Start Num: 29

Candidate Starts for Sassay\_101:

(Start: 29 @60770 has 124 MA's), (69, 60899), (75, 60923), (87, 60983), (95, 61031),

Gene: ScienceWizSam\_71 Start: 46973, Stop: 47476, Start Num: 36

Candidate Starts for ScienceWizSam\_71:

(Start: 36 @46973 has 29 MA's), (59, 47072), (92, 47234), (107, 47288), (117, 47345), (119, 47372), (122, 47423),

Gene: Serenabeen\_69 Start: 43953, Stop: 44279, Start Num: 43

Candidate Starts for Serenabeen\_69:

(13, 43881), (Start: 28 @43932 has 1 MA's), (41, 43950), (Start: 43 @43953 has 3 MA's), (51, 43995), (52, 43998), (63, 44070), (64, 44073), (73, 44109), (75, 44115), (78, 44130), (87, 44172), (97, 44223), (102, 44241), (111, 44271),

Gene: ShakeltOph\_30 Start: 22617, Stop: 23000, Start Num: 25

Candidate Starts for ShakeltOph\_30:

(1, 22437), (Start: 25 @22617 has 4 MA's), (70, 22791), (82, 22851),

Gene: ShamWow\_106 Start: 62698, Stop: 62988, Start Num: 29

Candidate Starts for ShamWow\_106:

(Start: 29 @62698 has 124 MA's), (69, 62827), (75, 62851), (87, 62911), (95, 62959),

Gene: Shepard\_74 Start: 46904, Stop: 47407, Start Num: 36

Candidate Starts for Shepard\_74:

(Start: 36 @46904 has 29 MA's), (48, 46934), (51, 46955), (53, 46976), (59, 47003), (67, 47039), (92, 47165), (107, 47219), (117, 47276), (119, 47303),

Gene: ShereKhan\_104 Start: 63179, Stop: 63469, Start Num: 29

Candidate Starts for ShereKhan\_104:

(Start: 29 @63179 has 124 MA's), (69, 63308), (75, 63332), (87, 63392), (95, 63440),

Gene: Shiba\_71 Start: 44860, Stop: 45357, Start Num: 45

Candidate Starts for Shiba\_71:

(Start: 23 @44827 has 2 MA's), (31, 44839), (33, 44845), (Start: 45 @44860 has 28 MA's), (Start: 46 @44875 has 3 MA's), (78, 45040), (101, 45148), (118, 45241),

Gene: Simpliphy\_104 Start: 61991, Stop: 62281, Start Num: 29

Candidate Starts for Simpliphy\_104:

(Start: 29 @61991 has 124 MA's), (69, 62120), (75, 62144), (87, 62204), (95, 62252),

Gene: SirDuracell\_106 Start: 61536, Stop: 61823, Start Num: 29

Candidate Starts for SirDuracell\_106:

(Start: 29 @61536 has 124 MA's), (69, 61665), (75, 61689), (87, 61749), (95, 61797),

Gene: Sleepyhead\_60 Start: 39674, Stop: 40021, Start Num: 18

Candidate Starts for Sleepyhead\_60:

(Start: 18 @39674 has 1 MA's), (77, 39896), (86, 39935), (100, 40004),

Gene: Sloopyjoe\_72 Start: 45206, Stop: 45703, Start Num: 45

Candidate Starts for Sloopyjoe\_72:

(Start: 23 @45173 has 2 MA's), (31, 45185), (33, 45191), (Start: 45 @45206 has 28 MA's), (Start: 46 @45221 has 3 MA's), (78, 45386), (101, 45494), (118, 45587),

Gene: SophKB\_104 Start: 61980, Stop: 62270, Start Num: 29

Candidate Starts for SophKB\_104:

(Start: 29 @61980 has 124 MA's), (69, 62109), (75, 62133), (87, 62193), (95, 62241),

Gene: Sotrice96\_107 Start: 62444, Stop: 62734, Start Num: 29

Candidate Starts for Sotrice96\_107:

(Start: 29 @62444 has 124 MA's), (69, 62573), (75, 62597), (87, 62657), (95, 62705),

Gene: Spain\_72 Start: 45204, Stop: 45701, Start Num: 45

Candidate Starts for Spain\_72:

(Start: 23 @45171 has 2 MA's), (31, 45183), (33, 45189), (Start: 45 @45204 has 28 MA's), (Start: 46 @45219 has 3 MA's), (78, 45384), (101, 45492), (118, 45585),

Gene: SpeedDemon\_1110 Start: 72859, Stop: 73215, Start Num: 22

Candidate Starts for SpeedDemon\_1110:

(7, 72799), (Start: 22 @72859 has 2 MA's), (67, 73030), (75, 73066), (99, 73177), (100, 73186),

Gene: Sporto\_71 Start: 46287, Stop: 46784, Start Num: 45

Candidate Starts for Sporto\_71:

(Start: 22 @46248 has 2 MA's), (Start: 45 @46287 has 28 MA's), (53, 46350), (59, 46377), (72, 46440), (85, 46494), (100, 46569), (108, 46599), (117, 46653),

Gene: Sprinkle\_73 Start: 45895, Stop: 46392, Start Num: 45

Candidate Starts for Sprinkle\_73:

(13, 45820), (14, 45829), (Start: 23 @45862 has 2 MA's), (31, 45874), (Start: 45 @45895 has 28 MA's), (54, 45961), (59, 45985), (78, 46075), (85, 46102), (101, 46183), (117, 46261),

Gene: Stank\_108 Start: 62218, Stop: 62508, Start Num: 29

Candidate Starts for Stank\_108:

(Start: 29 @62218 has 124 MA's), (69, 62347), (75, 62371), (87, 62431), (95, 62479),

Gene: StarLord\_72 Start: 45199, Stop: 45696, Start Num: 45

Candidate Starts for StarLord\_72:

(Start: 23 @45166 has 2 MA's), (31, 45178), (33, 45184), (Start: 45 @45199 has 28 MA's), (Start: 46 @45214 has 3 MA's), (78, 45379), (101, 45487), (118, 45580),

Gene: Stardom\_76 Start: 44971, Stop: 45414, Start Num: 54

Candidate Starts for Stardom\_76:

(12, 44830), (Start: 40 @44902 has 22 MA's), (54, 44971), (65, 45025), (94, 45169), (97, 45175), (103, 45196), (104, 45199),

Gene: Stardrop\_73 Start: 45289, Stop: 45780, Start Num: 45

Candidate Starts for Stardrop\_73:

(Start: 42 @45286 has 3 MA's), (Start: 45 @45289 has 28 MA's), (51, 45331), (52, 45334), (86, 45502), (118, 45661),

Gene: Stark\_106 Start: 62304, Stop: 62594, Start Num: 29

Candidate Starts for Stark\_106:

(Start: 29 @62304 has 124 MA's), (69, 62433), (75, 62457), (87, 62517), (95, 62565),

Gene: Stayer\_72 Start: 45169, Stop: 45699, Start Num: 23

Candidate Starts for Stayer\_72:

(Start: 23 @45169 has 2 MA's), (31, 45181), (33, 45187), (Start: 45 @45202 has 28 MA's), (Start: 46 @45217 has 3 MA's), (78, 45382), (101, 45490), (118, 45583),

Gene: StellaBean\_105 Start: 62601, Stop: 62891, Start Num: 29

Candidate Starts for StellaBean\_105:

(Start: 29 @62601 has 124 MA's), (69, 62730), (75, 62754), (87, 62814), (95, 62862),

Gene: StolenFromERC\_108 Start: 62143, Stop: 62433, Start Num: 29

Candidate Starts for StolenFromERC\_108:

(Start: 29 @62143 has 124 MA's), (69, 62272), (75, 62296), (87, 62356), (95, 62404),

Gene: Sunny4976\_69 Start: 47081, Stop: 47557, Start Num: 45

Candidate Starts for Sunny4976\_69:

(Start: 45 @47081 has 28 MA's), (60, 47177), (94, 47345), (124, 47525),

Gene: Sweetclover\_69 Start: 43166, Stop: 43486, Start Num: 37

Candidate Starts for Sweetclover\_69:

(Start: 37 @43166 has 10 MA's), (52, 43211), (75, 43328), (97, 43436), (102, 43454), (111, 43478),

Gene: Synopsis\_66 Start: 46738, Stop: 47241, Start Num: 36

Candidate Starts for Synopsis\_66:

(Start: 36 @46738 has 29 MA's), (59, 46837), (92, 46999), (107, 47053), (117, 47110), (122, 47188),

Gene: TBrady12\_109 Start: 61655, Stop: 61945, Start Num: 29

Candidate Starts for TBrady12\_109:

(Start: 29 @61655 has 124 MA's), (69, 61784), (75, 61808), (87, 61868), (95, 61916),

Gene: Tarkin\_105 Start: 63044, Stop: 63334, Start Num: 29

Candidate Starts for Tarkin\_105:

(Start: 29 @63044 has 124 MA's), (69, 63173), (75, 63197), (87, 63257), (95, 63305),

Gene: Tatanka\_63 Start: 46880, Stop: 47383, Start Num: 36

Candidate Starts for Tatanka\_63:

(Start: 36 @46880 has 29 MA's), (59, 46979), (92, 47141), (107, 47195), (117, 47252), (119, 47279), (122, 47330),

Gene: Teacup\_71 Start: 47312, Stop: 47815, Start Num: 36

Candidate Starts for Teacup\_71:

(Start: 36 @47312 has 29 MA's), (59, 47411), (91, 47570), (92, 47573), (107, 47627), (117, 47684), (119, 47711), (122, 47762),

Gene: TeardropMSU\_102 Start: 61546, Stop: 61836, Start Num: 29

Candidate Starts for TeardropMSU\_102:

(Start: 29 @61546 has 124 MA's), (69, 61675), (75, 61699), (87, 61759), (95, 61807),

Gene: Teaspoon\_106 Start: 62203, Stop: 62493, Start Num: 29

Candidate Starts for Teaspoon\_106:

(Start: 29 @62203 has 124 MA's), (69, 62332), (75, 62356), (87, 62416), (95, 62464),

Gene: Tenney120\_74 Start: 45235, Stop: 45726, Start Num: 45

Candidate Starts for Tenney120\_74:

(Start: 42 @45232 has 3 MA's), (Start: 45 @45235 has 28 MA's), (51, 45277), (52, 45280), (86, 45448), (104, 45529),

Gene: Tenno\_69 Start: 47396, Stop: 47899, Start Num: 36

Candidate Starts for Tenno\_69:

(Start: 36 @47396 has 29 MA's), (Start: 46 @47420 has 3 MA's), (59, 47495), (92, 47657), (107, 47711), (117, 47768), (119, 47795), (122, 47846),

Gene: Terminus\_109 Start: 63444, Stop: 63734, Start Num: 29

Candidate Starts for Terminus\_109:

(Start: 29 @63444 has 124 MA's), (69, 63573), (75, 63597), (87, 63657), (95, 63705),

Gene: Thimble\_108 Start: 61405, Stop: 61695, Start Num: 29

Candidate Starts for Thimble\_108:

(Start: 29 @61405 has 124 MA's), (69, 61534), (75, 61558), (87, 61618), (95, 61666),

Gene: Thresher\_107 Start: 63084, Stop: 63374, Start Num: 29

Candidate Starts for Thresher\_107:

(Start: 29 @63084 has 124 MA's), (69, 63213), (75, 63237), (87, 63297), (95, 63345),

Gene: Tipton\_75 Start: 47419, Stop: 47922, Start Num: 36

Candidate Starts for Tipton\_75:

(Start: 36 @47419 has 29 MA's), (48, 47449), (51, 47470), (53, 47491), (59, 47518), (67, 47554), (92, 47680), (107, 47734), (117, 47791), (119, 47818),

Gene: Tokki\_79 Start: 47450, Stop: 47953, Start Num: 36

Candidate Starts for Tokki\_79:

(Start: 36 @47450 has 29 MA's), (48, 47480), (51, 47501), (53, 47522), (59, 47549), (67, 47585), (92, 47711), (107, 47765), (117, 47822), (119, 47849),

Gene: Tomaszewski\_101 Start: 61982, Stop: 62272, Start Num: 29

Candidate Starts for Tomaszewski\_101:

(Start: 29 @61982 has 124 MA's), (69, 62111), (75, 62135), (87, 62195), (95, 62243),

Gene: Toto\_104 Start: 62698, Stop: 62988, Start Num: 29

Candidate Starts for Toto\_104:

(Start: 29 @62698 has 124 MA's), (69, 62827), (75, 62851), (87, 62911), (95, 62959),

Gene: Towmatter\_103 Start: 67264, Stop: 67620, Start Num: 21

Candidate Starts for Towmatter\_103:

(Start: 21 @67264 has 2 MA's), (38, 67288), (62, 67411), (75, 67471), (99, 67582),

Gene: Traaww1\_102 Start: 61247, Stop: 61537, Start Num: 29

Candidate Starts for Traaww1\_102:

(Start: 29 @61247 has 124 MA's), (69, 61376), (75, 61400), (87, 61460), (95, 61508),

Gene: Tribby\_80 Start: 46452, Stop: 46964, Start Num: 40

Candidate Starts for Tribby\_80:

(Start: 40 @46452 has 22 MA's), (54, 46521), (65, 46575), (94, 46719), (103, 46746),

Gene: TrixiePhattel\_74 Start: 44870, Stop: 45361, Start Num: 45

Candidate Starts for TrixiePhattel\_74:

(30, 44846), (Start: 42 @44867 has 3 MA's), (Start: 45 @44870 has 28 MA's), (Start: 46 @44885 has 3 MA's), (52, 44915), (80, 45053), (86, 45083), (104, 45164), (112, 45188), (115, 45218), (118, 45242), (123, 45308),

Gene: Truckee\_71 Start: 47121, Stop: 47624, Start Num: 36

Candidate Starts for Truckee\_71:

(Start: 36 @47121 has 29 MA's), (Start: 46 @47145 has 3 MA's), (51, 47172), (59, 47220), (67, 47256), (92, 47382), (107, 47436), (117, 47493), (119, 47520), (122, 47571),

Gene: Trustiboi\_68 Start: 46995, Stop: 47498, Start Num: 36

Candidate Starts for Trustiboi\_68:

(Start: 36 @46995 has 29 MA's), (59, 47094), (92, 47256), (107, 47310), (117, 47367), (119, 47394), (122, 47445),

Gene: Tuco\_107 Start: 63605, Stop: 63895, Start Num: 29

Candidate Starts for Tuco\_107:

(Start: 29 @63605 has 124 MA's), (69, 63734), (75, 63758), (87, 63818), (95, 63866),

Gene: Ukulele\_100 Start: 61803, Stop: 62093, Start Num: 29

Candidate Starts for Ukulele\_100:

(Start: 29 @61803 has 124 MA's), (69, 61932), (75, 61956), (87, 62016), (95, 62064),

Gene: Uzumaki\_70 Start: 44675, Stop: 45166, Start Num: 45

Candidate Starts for Uzumaki\_70:

(Start: 42 @44672 has 3 MA's), (Start: 45 @44675 has 28 MA's), (51, 44717), (52, 44720), (86, 44888), (104, 44969), (118, 45047),

Gene: VroomVroom\_30 Start: 22712, Stop: 23095, Start Num: 25

Candidate Starts for VroomVroom\_30:

(1, 22532), (Start: 25 @22712 has 4 MA's), (82, 22946),

Gene: Westerlin\_67 Start: 48082, Stop: 48585, Start Num: 36

Candidate Starts for Westerlin\_67:

(Start: 36 @48082 has 29 MA's), (59, 48181), (92, 48343), (107, 48397), (115, 48445), (117, 48454), (119, 48481), (122, 48532),

Gene: Wiggin\_108 Start: 61648, Stop: 61938, Start Num: 29

Candidate Starts for Wiggin\_108:

(Start: 29 @61648 has 124 MA's), (69, 61777), (75, 61801), (87, 61861), (95, 61909),

Gene: Willez\_101 Start: 60770, Stop: 61060, Start Num: 29

Candidate Starts for Willez\_101:

(Start: 29 @60770 has 124 MA's), (69, 60899), (75, 60923), (87, 60983), (95, 61031),

Gene: Xenomorph\_73 Start: 45979, Stop: 46491, Start Num: 40

Candidate Starts for Xenomorph\_73:

(Start: 40 @45979 has 22 MA's), (54, 46048), (65, 46102), (94, 46246), (97, 46252), (103, 46273), (104, 46276), (123, 46420),

Gene: YassJohnny\_103 Start: 60791, Stop: 61081, Start Num: 29

Candidate Starts for YassJohnny\_103:

(Start: 29 @60791 has 124 MA's), (69, 60920), (75, 60944), (87, 61004), (95, 61052),

Gene: YoshiYama\_78 Start: 46617, Stop: 47060, Start Num: 54

Candidate Starts for YoshiYama\_78:

(12, 46476), (Start: 40 @46548 has 22 MA's), (54, 46617), (65, 46671), (94, 46815), (97, 46821), (103, 46842), (104, 46845),

Gene: Yotsuba\_69 Start: 47646, Stop: 48014, Start Num: 20

Candidate Starts for Yotsuba\_69:

(6, 47577), (16, 47628), (Start: 20 @47646 has 3 MA's), (Start: 29 @47667 has 124 MA's), (Start: 43 @47685 has 3 MA's), (Start: 46 @47700 has 3 MA's), (66, 47811), (71, 47838), (77, 47859), (82, 47877), (92, 47940), (111, 48006),

Gene: Youngblood\_109 Start: 62940, Stop: 63230, Start Num: 29

Candidate Starts for Youngblood\_109:

(Start: 29 @62940 has 124 MA's), (69, 63069), (75, 63093), (87, 63153), (95, 63201),

Gene: Zeina\_76 Start: 45531, Stop: 46022, Start Num: 45

Candidate Starts for Zeina\_76:

(Start: 42 @45528 has 3 MA's), (Start: 45 @45531 has 28 MA's), (51, 45573), (52, 45576), (86, 45744), (104, 45825), (118, 45903),

Gene: Zippen\_75 Start: 47714, Stop: 48217, Start Num: 37

Candidate Starts for Zippen\_75:

(Start: 37 @47714 has 10 MA's), (53, 47786), (67, 47849), (76, 47888), (92, 47975),

Gene: xkcd\_109 Start: 63125, Stop: 63415, Start Num: 29

Candidate Starts for xkcd\_109:

(Start: 29 @63125 has 124 MA's), (69, 63254), (75, 63278), (87, 63338), (95, 63386),