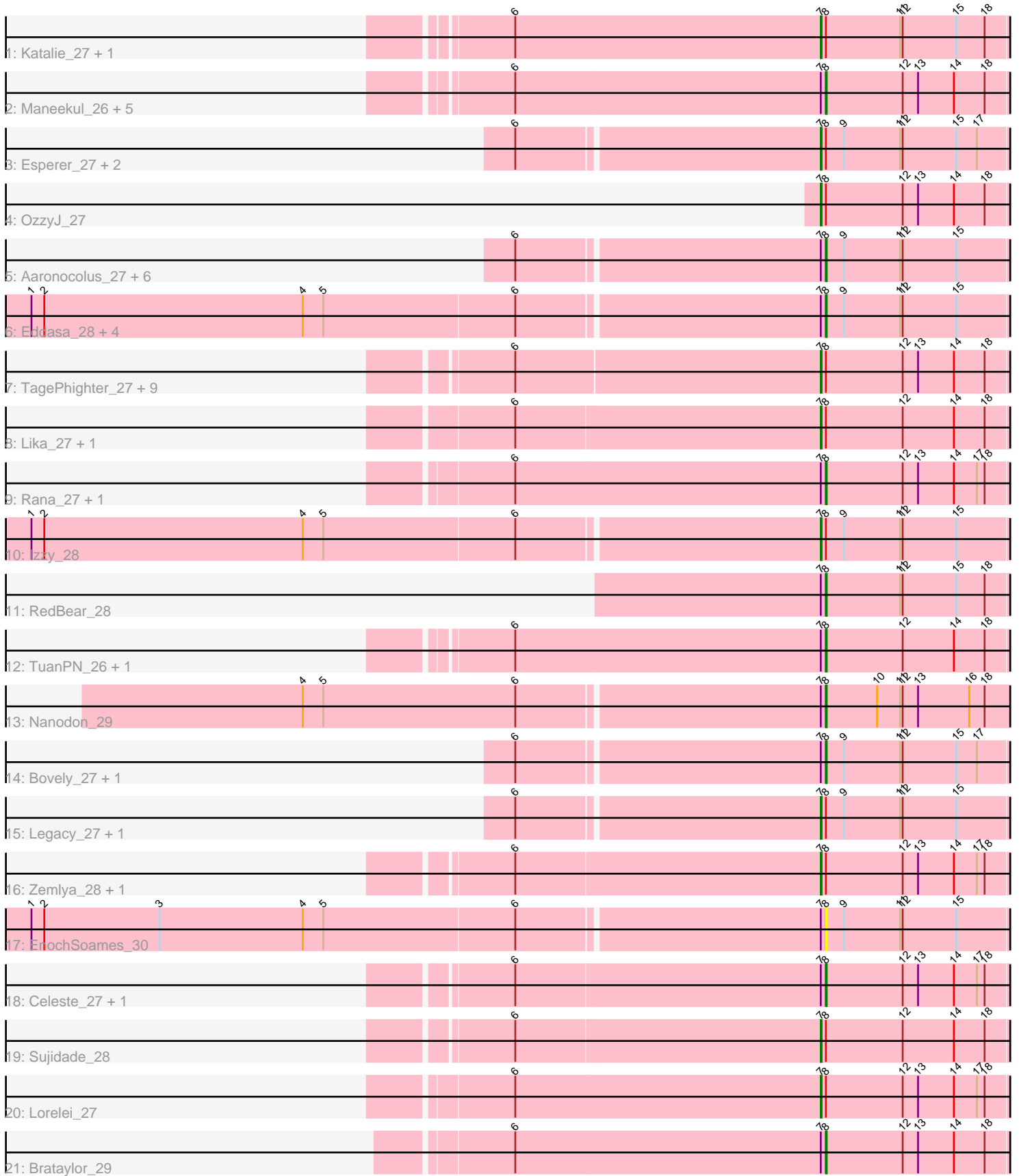


Pham 189788



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 189788 Report

This analysis was run 11/02/24 on database version 579.

Pham number 189788 has 55 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Katalie\_27, South40\_27
- Track 2 : Maneekul\_26, Emaanora\_28, Yasdnil\_26, Asten\_26, Goby\_27, Toma\_27
- Track 3 : Esperer\_27, Indigo\_26, Nerdos\_27
- Track 4 : OzzyJ\_27
- Track 5 : Aaronocolus\_27, Caliburn\_27, Phettuccine\_27, Hydra\_29, BeardedLady\_28, Leviticus\_27, Ozzie\_27
- Track 6 : Eddasa\_28, Jash\_28, Oliynyk\_28, BryanRecycles\_28, Rusticus\_28
- Track 7 : TagePhighter\_27, BarryBee\_28, Triste\_26, Hippo\_26, Werner\_26, Dwayne\_26, SarahRose\_26, Whatever\_26, Chucky\_26, Snorlax\_26
- Track 8 : Lika\_27, Godpower\_28
- Track 9 : Rana\_27, Nabi\_27
- Track 10 : Izzy\_28
- Track 11 : RedBear\_28
- Track 12 : TuanPN\_26, Ejemplo\_26
- Track 13 : Nanodon\_29
- Track 14 : Bovely\_27, SunsetPointe\_27
- Track 15 : Legacy\_27, Unstoppable\_27
- Track 16 : Zemlya\_28, Danzina\_28
- Track 17 : EnochSoames\_30
- Track 18 : Celeste\_27, Dattran\_28
- Track 19 : Sujidade\_28
- Track 20 : Lorelei\_27
- Track 21 : Brataylor\_29

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

The start number called the most often in the published annotations is 8, it was called in 29 of the 54 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aaronocolus\_27, Asten\_26, BeardedLady\_28, Bovely\_27, Brataylor\_29, BryanRecycles\_28, Caliburn\_27, Celeste\_27, Dattran\_28, Eddasa\_28, Ejemplo\_26, Emaanora\_28, EnochSoames\_30, Goby\_27, Hydra\_29, Jash\_28, Leviticus\_27, Maneekul\_26, Nabi\_27, Nanodon\_29, Oliynyk\_28, Ozzie\_27, Phettuccine\_27,

Rana\_27, RedBear\_28, Rusticus\_28, SunsetPointe\_27, Toma\_27, TuanPN\_26, Yasdnil\_26,

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

- BarryBee\_28, Chucky\_26, Danzina\_28, Dwayne\_26, Esperer\_27, Godpower\_28, Hippo\_26, Indigo\_26, Izzy\_28, Katalie\_27, Legacy\_27, Lika\_27, Lorelei\_27, Nerdos\_27, OzzyJ\_27, SarahRose\_26, Snorlax\_26, South40\_27, Sujidade\_28, TagePhighter\_27, Triste\_26, Unstoppable\_27, Werner\_26, Whatever\_26, Zemlya\_28,

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

- 

### **Summary by start number:**

Start 7:

- Found in 55 of 55 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 25 of 54
- Called 45.5% of time when present
- Phage (with cluster) where this start called: BarryBee\_28 (BD1), Chucky\_26 (BD1), Danzina\_28 (BD1), Dwayne\_26 (BD1), Esperer\_27 (BD1), Godpower\_28 (BD1), Hippo\_26 (BD1), Indigo\_26 (BD1), Izzy\_28 (BD1), Katalie\_27 (BD1), Legacy\_27 (BD1), Lika\_27 (BD1), Lorelei\_27 (BD1), Nerdos\_27 (BD1), OzzyJ\_27 (BD1), SarahRose\_26 (BD1), Snorlax\_26 (BD1), South40\_27 (BD1), Sujidade\_28 (BD1), TagePhighter\_27 (BD1), Triste\_26 (BD1), Unstoppable\_27 (BD1), Werner\_26 (BD1), Whatever\_26 (BD1), Zemlya\_28 (BD1),

Start 8:

- Found in 55 of 55 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 29 of 54
- Called 54.5% of time when present
- Phage (with cluster) where this start called: Aaronocolus\_27 (BD1), Asten\_26 (BD1), BeardedLady\_28 (BD1), Bovely\_27 (BD1), Brataylor\_29 (BD1), BryanRecycles\_28 (BD1), Caliburn\_27 (BD1), Celeste\_27 (BD1), Dattran\_28 (BD1), Eddasa\_28 (BD1), Ejemplo\_26 (BD1), Emaanora\_28 (BD1), EnochSoames\_30 (BD1), Goby\_27 (BD1), Hydra\_29 (BD1), Jash\_28 (BD1), Leviticus\_27 (BD1), Maneekul\_26 (BD1), Nabi\_27 (BD1), Nanodon\_29 (BD1), Oliynyk\_28 (BD1), Ozzie\_27 (BD1), Phettuccine\_27 (BD1), Rana\_27 (BD1), RedBear\_28 (BD1), Rusticus\_28 (BD1), SunsetPointe\_27 (BD1), Toma\_27 (BD1), TuanPN\_26 (BD1), Yasdnil\_26 (BD1),

### **Summary by clusters:**

There is one cluster represented in this pham: BD1

Info for manual annotations of cluster BD1:

- Start number 7 was manually annotated 25 times for cluster BD1.
- Start number 8 was manually annotated 29 times for cluster BD1.

### **Gene Information:**

Gene: Aaronocolus\_27 Start: 21931, Stop: 22191, Start Num: 8

Candidate Starts for Aaronocolus\_27:

(6, 21580), (Start: 7 @21925 has 25 MA's), (Start: 8 @21931 has 29 MA's), (9, 21952), (11, 22018), (12, 22021), (15, 22084),

Gene: Asten\_26 Start: 22171, Stop: 22434, Start Num: 8

Candidate Starts for Asten\_26:

(6, 21811), (Start: 7 @22165 has 25 MA's), (Start: 8 @22171 has 29 MA's), (12, 22261), (13, 22279), (14, 22321), (18, 22357),

Gene: BarryBee\_28 Start: 22175, Stop: 22444, Start Num: 7

Candidate Starts for BarryBee\_28:

(6, 21821), (Start: 7 @22175 has 25 MA's), (Start: 8 @22181 has 29 MA's), (12, 22271), (13, 22289), (14, 22331), (18, 22367),

Gene: BeardedLady\_28 Start: 22184, Stop: 22444, Start Num: 8

Candidate Starts for BeardedLady\_28:

(6, 21833), (Start: 7 @22178 has 25 MA's), (Start: 8 @22184 has 29 MA's), (9, 22205), (11, 22271), (12, 22274), (15, 22337),

Gene: Bovely\_27 Start: 21937, Stop: 22197, Start Num: 8

Candidate Starts for Bovely\_27:

(6, 21586), (Start: 7 @21931 has 25 MA's), (Start: 8 @21937 has 29 MA's), (9, 21958), (11, 22024), (12, 22027), (15, 22090), (17, 22114),

Gene: Brataylor\_29 Start: 23190, Stop: 23453, Start Num: 8

Candidate Starts for Brataylor\_29:

(6, 22827), (Start: 7 @23184 has 25 MA's), (Start: 8 @23190 has 29 MA's), (12, 23280), (13, 23298), (14, 23340), (18, 23376),

Gene: BryanRecycles\_28 Start: 22288, Stop: 22548, Start Num: 8

Candidate Starts for BryanRecycles\_28:

(1, 21373), (2, 21388), (4, 21691), (5, 21715), (6, 21937), (Start: 7 @22282 has 25 MA's), (Start: 8 @22288 has 29 MA's), (9, 22309), (11, 22375), (12, 22378), (15, 22441),

Gene: Caliburn\_27 Start: 21914, Stop: 22174, Start Num: 8

Candidate Starts for Caliburn\_27:

(6, 21563), (Start: 7 @21908 has 25 MA's), (Start: 8 @21914 has 29 MA's), (9, 21935), (11, 22001), (12, 22004), (15, 22067),

Gene: Celeste\_27 Start: 22637, Stop: 22900, Start Num: 8

Candidate Starts for Celeste\_27:

(6, 22277), (Start: 7 @22631 has 25 MA's), (Start: 8 @22637 has 29 MA's), (12, 22727), (13, 22745), (14, 22787), (17, 22814), (18, 22823),

Gene: Chucky\_26 Start: 22179, Stop: 22448, Start Num: 7

Candidate Starts for Chucky\_26:

(6, 21825), (Start: 7 @22179 has 25 MA's), (Start: 8 @22185 has 29 MA's), (12, 22275), (13, 22293), (14, 22335), (18, 22371),

Gene: Danzina\_28 Start: 22932, Stop: 23201, Start Num: 7

Candidate Starts for Danzina\_28:

(6, 22578), (Start: 7 @22932 has 25 MA's), (Start: 8 @22938 has 29 MA's), (12, 23028), (13, 23046), (14, 23088), (17, 23115), (18, 23124),

Gene: Dattran\_28 Start: 22747, Stop: 23010, Start Num: 8

Candidate Starts for Dattran\_28:

(6, 22387), (Start: 7 @22741 has 25 MA's), (Start: 8 @22747 has 29 MA's), (12, 22837), (13, 22855), (14, 22897), (17, 22924), (18, 22933),

Gene: Dwayne\_26 Start: 22166, Stop: 22435, Start Num: 7

Candidate Starts for Dwayne\_26:

(6, 21812), (Start: 7 @22166 has 25 MA's), (Start: 8 @22172 has 29 MA's), (12, 22262), (13, 22280), (14, 22322), (18, 22358),

Gene: Eddasa\_28 Start: 22288, Stop: 22548, Start Num: 8

Candidate Starts for Eddasa\_28:

(1, 21373), (2, 21388), (4, 21691), (5, 21715), (6, 21937), (Start: 7 @22282 has 25 MA's), (Start: 8 @22288 has 29 MA's), (9, 22309), (11, 22375), (12, 22378), (15, 22441),

Gene: Ejemplo\_26 Start: 22207, Stop: 22467, Start Num: 8

Candidate Starts for Ejemplo\_26:

(6, 21844), (Start: 7 @22201 has 25 MA's), (Start: 8 @22207 has 29 MA's), (12, 22297), (14, 22357), (18, 22393),

Gene: Emaanora\_28 Start: 22130, Stop: 22393, Start Num: 8

Candidate Starts for Emaanora\_28:

(6, 21770), (Start: 7 @22124 has 25 MA's), (Start: 8 @22130 has 29 MA's), (12, 22220), (13, 22238), (14, 22280), (18, 22316),

Gene: EnochSoames\_30 Start: 22283, Stop: 22543, Start Num: 8

Candidate Starts for EnochSoames\_30:

(1, 21368), (2, 21383), (3, 21518), (4, 21686), (5, 21710), (6, 21932), (Start: 7 @22277 has 25 MA's), (Start: 8 @22283 has 29 MA's), (9, 22304), (11, 22370), (12, 22373), (15, 22436),

Gene: Esperer\_27 Start: 21744, Stop: 22010, Start Num: 7

Candidate Starts for Esperer\_27:

(6, 21399), (Start: 7 @21744 has 25 MA's), (Start: 8 @21750 has 29 MA's), (9, 21771), (11, 21837), (12, 21840), (15, 21903), (17, 21927),

Gene: Goby\_27 Start: 22752, Stop: 23015, Start Num: 8

Candidate Starts for Goby\_27:

(6, 22392), (Start: 7 @22746 has 25 MA's), (Start: 8 @22752 has 29 MA's), (12, 22842), (13, 22860), (14, 22902), (18, 22938),

Gene: Godpower\_28 Start: 22745, Stop: 23014, Start Num: 7

Candidate Starts for Godpower\_28:

(6, 22391), (Start: 7 @22745 has 25 MA's), (Start: 8 @22751 has 29 MA's), (12, 22841), (14, 22901), (18, 22937),

Gene: Hippo\_26 Start: 22175, Stop: 22444, Start Num: 7

Candidate Starts for Hippo\_26:

(6, 21821), (Start: 7 @22175 has 25 MA's), (Start: 8 @22181 has 29 MA's), (12, 22271), (13, 22289), (14, 22331), (18, 22367),

Gene: Hydra\_29 Start: 22462, Stop: 22722, Start Num: 8

Candidate Starts for Hydra\_29:

(6, 22111), (Start: 7 @22456 has 25 MA's), (Start: 8 @22462 has 29 MA's), (9, 22483), (11, 22549), (12, 22552), (15, 22615),

Gene: Indigo\_26 Start: 21924, Stop: 22190, Start Num: 7

Candidate Starts for Indigo\_26:

(6, 21579), (Start: 7 @21924 has 25 MA's), (Start: 8 @21930 has 29 MA's), (9, 21951), (11, 22017), (12, 22020), (15, 22083), (17, 22107),

Gene: Izzy\_28 Start: 22329, Stop: 22595, Start Num: 7

Candidate Starts for Izzy\_28:

(1, 21420), (2, 21435), (4, 21738), (5, 21762), (6, 21984), (Start: 7 @22329 has 25 MA's), (Start: 8 @22335 has 29 MA's), (9, 22356), (11, 22422), (12, 22425), (15, 22488),

Gene: Jash\_28 Start: 22288, Stop: 22548, Start Num: 8

Candidate Starts for Jash\_28:

(1, 21373), (2, 21388), (4, 21691), (5, 21715), (6, 21937), (Start: 7 @22282 has 25 MA's), (Start: 8 @22288 has 29 MA's), (9, 22309), (11, 22375), (12, 22378), (15, 22441),

Gene: Katalie\_27 Start: 22461, Stop: 22727, Start Num: 7

Candidate Starts for Katalie\_27:

(6, 22104), (Start: 7 @22461 has 25 MA's), (Start: 8 @22467 has 29 MA's), (11, 22554), (12, 22557), (15, 22620), (18, 22653),

Gene: Legacy\_27 Start: 21899, Stop: 22165, Start Num: 7

Candidate Starts for Legacy\_27:

(6, 21554), (Start: 7 @21899 has 25 MA's), (Start: 8 @21905 has 29 MA's), (9, 21926), (11, 21992), (12, 21995), (15, 22058),

Gene: Leviticus\_27 Start: 21934, Stop: 22194, Start Num: 8

Candidate Starts for Leviticus\_27:

(6, 21583), (Start: 7 @21928 has 25 MA's), (Start: 8 @21934 has 29 MA's), (9, 21955), (11, 22021), (12, 22024), (15, 22087),

Gene: Lika\_27 Start: 22749, Stop: 23018, Start Num: 7

Candidate Starts for Lika\_27:

(6, 22395), (Start: 7 @22749 has 25 MA's), (Start: 8 @22755 has 29 MA's), (12, 22845), (14, 22905), (18, 22941),

Gene: Lorelei\_27 Start: 22718, Stop: 22987, Start Num: 7

Candidate Starts for Lorelei\_27:

(6, 22361), (Start: 7 @22718 has 25 MA's), (Start: 8 @22724 has 29 MA's), (12, 22814), (13, 22832), (14, 22874), (17, 22901), (18, 22910),

Gene: Maneekul\_26 Start: 22206, Stop: 22466, Start Num: 8

Candidate Starts for Maneekul\_26:

(6, 21843), (Start: 7 @22200 has 25 MA's), (Start: 8 @22206 has 29 MA's), (12, 22296), (13, 22314), (14, 22356), (18, 22392),

Gene: Nabi\_27 Start: 22724, Stop: 22987, Start Num: 8

Candidate Starts for Nabi\_27:

(6, 22361), (Start: 7 @22718 has 25 MA's), (Start: 8 @22724 has 29 MA's), (12, 22814), (13, 22832), (14, 22874), (17, 22901), (18, 22910),

Gene: Nanodon\_29 Start: 22564, Stop: 22827, Start Num: 8

Candidate Starts for Nanodon\_29:

(4, 21964), (5, 21988), (6, 22213), (Start: 7 @22558 has 25 MA's), (Start: 8 @22564 has 29 MA's), (10, 22624), (11, 22651), (12, 22654), (13, 22672), (16, 22732), (18, 22750),

Gene: Nerdos\_27 Start: 21922, Stop: 22188, Start Num: 7

Candidate Starts for Nerdos\_27:

(6, 21577), (Start: 7 @21922 has 25 MA's), (Start: 8 @21928 has 29 MA's), (9, 21949), (11, 22015), (12, 22018), (15, 22081), (17, 22105),

Gene: Oliynyk\_28 Start: 22288, Stop: 22548, Start Num: 8

Candidate Starts for Oliynyk\_28:

(1, 21373), (2, 21388), (4, 21691), (5, 21715), (6, 21937), (Start: 7 @22282 has 25 MA's), (Start: 8 @22288 has 29 MA's), (9, 22309), (11, 22375), (12, 22378), (15, 22441),

Gene: Ozzie\_27 Start: 21914, Stop: 22174, Start Num: 8

Candidate Starts for Ozzie\_27:

(6, 21563), (Start: 7 @21908 has 25 MA's), (Start: 8 @21914 has 29 MA's), (9, 21935), (11, 22001), (12, 22004), (15, 22067),

Gene: OzzyJ\_27 Start: 22166, Stop: 22435, Start Num: 7

Candidate Starts for OzzyJ\_27:

(Start: 7 @22166 has 25 MA's), (Start: 8 @22172 has 29 MA's), (12, 22262), (13, 22280), (14, 22322), (18, 22358),

Gene: Phettuccine\_27 Start: 21930, Stop: 22190, Start Num: 8

Candidate Starts for Phettuccine\_27:

(6, 21579), (Start: 7 @21924 has 25 MA's), (Start: 8 @21930 has 29 MA's), (9, 21951), (11, 22017), (12, 22020), (15, 22083),

Gene: Rana\_27 Start: 22724, Stop: 22987, Start Num: 8

Candidate Starts for Rana\_27:

(6, 22361), (Start: 7 @22718 has 25 MA's), (Start: 8 @22724 has 29 MA's), (12, 22814), (13, 22832), (14, 22874), (17, 22901), (18, 22910),

Gene: RedBear\_28 Start: 22467, Stop: 22727, Start Num: 8

Candidate Starts for RedBear\_28:

(Start: 7 @22461 has 25 MA's), (Start: 8 @22467 has 29 MA's), (11, 22554), (12, 22557), (15, 22620), (18, 22653),

Gene: Rusticus\_28 Start: 22288, Stop: 22548, Start Num: 8

Candidate Starts for Rusticus\_28:

(1, 21373), (2, 21388), (4, 21691), (5, 21715), (6, 21937), (Start: 7 @22282 has 25 MA's), (Start: 8 @22288 has 29 MA's), (9, 22309), (11, 22375), (12, 22378), (15, 22441),

Gene: SarahRose\_26 Start: 22175, Stop: 22444, Start Num: 7

Candidate Starts for SarahRose\_26:

(6, 21821), (Start: 7 @22175 has 25 MA's), (Start: 8 @22181 has 29 MA's), (12, 22271), (13, 22289), (14, 22331), (18, 22367),

Gene: Snorlax\_26 Start: 22178, Stop: 22447, Start Num: 7

Candidate Starts for Snorlax\_26:

(6, 21824), (Start: 7 @22178 has 25 MA's), (Start: 8 @22184 has 29 MA's), (12, 22274), (13, 22292), (14, 22334), (18, 22370),

Gene: South40\_27 Start: 22461, Stop: 22727, Start Num: 7

Candidate Starts for South40\_27:

(6, 22104), (Start: 7 @22461 has 25 MA's), (Start: 8 @22467 has 29 MA's), (11, 22554), (12, 22557), (15, 22620), (18, 22653),

Gene: Sujidade\_28 Start: 23034, Stop: 23303, Start Num: 7

Candidate Starts for Sujidade\_28:

(6, 22680), (Start: 7 @23034 has 25 MA's), (Start: 8 @23040 has 29 MA's), (12, 23130), (14, 23190), (18, 23226),

Gene: SunsetPointe\_27 Start: 21921, Stop: 22181, Start Num: 8

Candidate Starts for SunsetPointe\_27:

(6, 21570), (Start: 7 @21915 has 25 MA's), (Start: 8 @21921 has 29 MA's), (9, 21942), (11, 22008), (12, 22011), (15, 22074), (17, 22098),

Gene: TagePhighter\_27 Start: 22178, Stop: 22447, Start Num: 7

Candidate Starts for TagePhighter\_27:

(6, 21824), (Start: 7 @22178 has 25 MA's), (Start: 8 @22184 has 29 MA's), (12, 22274), (13, 22292), (14, 22334), (18, 22370),

Gene: Toma\_27 Start: 22752, Stop: 23015, Start Num: 8

Candidate Starts for Toma\_27:

(6, 22392), (Start: 7 @22746 has 25 MA's), (Start: 8 @22752 has 29 MA's), (12, 22842), (13, 22860), (14, 22902), (18, 22938),

Gene: Triste\_26 Start: 22166, Stop: 22435, Start Num: 7

Candidate Starts for Triste\_26:

(6, 21812), (Start: 7 @22166 has 25 MA's), (Start: 8 @22172 has 29 MA's), (12, 22262), (13, 22280), (14, 22322), (18, 22358),

Gene: TuanPN\_26 Start: 22207, Stop: 22467, Start Num: 8

Candidate Starts for TuanPN\_26:

(6, 21844), (Start: 7 @22201 has 25 MA's), (Start: 8 @22207 has 29 MA's), (12, 22297), (14, 22357), (18, 22393),

Gene: Unstoppable\_27 Start: 21919, Stop: 22185, Start Num: 7

Candidate Starts for Unstoppable\_27:

(6, 21574), (Start: 7 @21919 has 25 MA's), (Start: 8 @21925 has 29 MA's), (9, 21946), (11, 22012), (12, 22015), (15, 22078),

Gene: Werner\_26 Start: 22176, Stop: 22445, Start Num: 7

Candidate Starts for Werner\_26:

(6, 21822), (Start: 7 @22176 has 25 MA's), (Start: 8 @22182 has 29 MA's), (12, 22272), (13, 22290), (14, 22332), (18, 22368),

Gene: Whatever\_26 Start: 22176, Stop: 22445, Start Num: 7

Candidate Starts for Whatever\_26:



(6, 21822), (Start: 7 @22176 has 25 MA's), (Start: 8 @22182 has 29 MA's), (12, 22272), (13, 22290),  
(14, 22332), (18, 22368),

Gene: Yasdnii\_26 Start: 22203, Stop: 22463, Start Num: 8

Candidate Starts for Yasdnii\_26:

(6, 21840), (Start: 7 @22197 has 25 MA's), (Start: 8 @22203 has 29 MA's), (12, 22293), (13, 22311),  
(14, 22353), (18, 22389),

Gene: Zemlya\_28 Start: 22738, Stop: 23007, Start Num: 7

Candidate Starts for Zemlya\_28:

(6, 22384), (Start: 7 @22738 has 25 MA's), (Start: 8 @22744 has 29 MA's), (12, 22834), (13, 22852),  
(14, 22894), (17, 22921), (18, 22930),