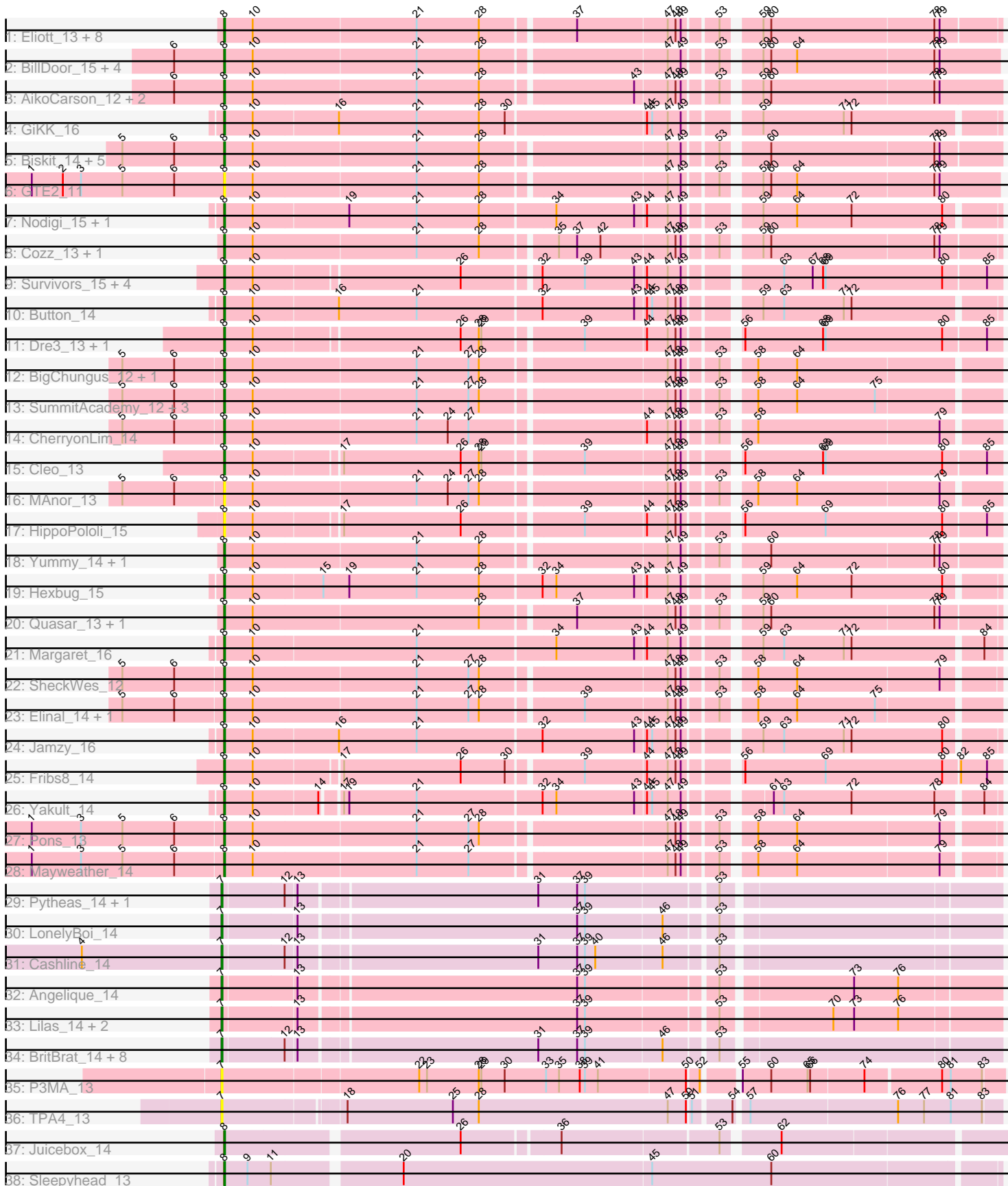


Pham 162996



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 162996 Report

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

Pham number 162996 has 82 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Elliott_13, Agatha_13, GoldHunter_14, MunkgeeRoachy_14, PsychoKiller_13, Typhonmarchy_14, RedBaron_14, Sopespian_13, Burnsey_13
- Track 2 : BillDoor_15, Yarn_12, SteamedHams_15, Tolls_15, AndPeggy_12
- Track 3 : AikoCarson_12, Amok_12, Emalyn_12
- Track 4 : GiKK_16
- Track 5 : Biskit_14, Buttrmlkdreams_13, Troje_13, SweatNTears_15, MScarn_15, SketchMex_12
- Track 6 : GTE2_11
- Track 7 : Nodigi_15, Orla_15
- Track 8 : Cozz_13, Axym_13
- Track 9 : Survivors_15, Azira_15, Nibbles_15, MaVan_15, Zareef_17
- Track 10 : Button_14
- Track 11 : Dre3_13, Gibbous_13
- Track 12 : BigChungus_12, Feastonyeet_12
- Track 13 : SummitAcademy_12, Lauer_12, PotPie_14, Vine_14
- Track 14 : CherryonLim_14
- Track 15 : Cleo_13
- Track 16 : MAnor_13
- Track 17 : HippoPololi_15
- Track 18 : Yummy_14, Horseradish_14
- Track 19 : Hexbug_15
- Track 20 : Quasar_13, Nina_14
- Track 21 : Margaret_16
- Track 22 : SheckWes_12
- Track 23 : Elinal_14, KayGee_12
- Track 24 : Jamzy_16
- Track 25 : Fribs8_14
- Track 26 : Yakult_14
- Track 27 : Pons_13
- Track 28 : Mayweather_14
- Track 29 : Pytheas_14, Jablanski_14
- Track 30 : LonelyBoi_14
- Track 31 : Cashline_14
- Track 32 : Angelique_14
- Track 33 : Lilas_14, Bradissa_14, EnalisNailo_14
- Track 34 : BritBrat_14, Posh_14, Wrigley_14, Pollux_14, Floral_14, Marteena_14, EMSquaredA_14, Confidence_14, BeeGee_14

- Track 35 : P3MA_13
- Track 36 : TPA4_13
- Track 37 : Juicebox_14
- Track 38 : Sleepyhead_13

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 50 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha_13, AikoCarson_12, Amok_12, AndPeggy_12, Axym_13, Azira_15, BigChungus_12, BillDoor_15, Biskit_14, Burnsey_13, Button_14, Buttrmilkdreams_13, CherryonLim_14, Cleo_13, Cozz_13, Dre3_13, Elinal_14, Elliott_13, Emalyn_12, Feastonyeet_12, Fribs8_14, GTE2_11, GiKK_16, Gibbous_13, GoldHunter_14, Hexbug_15, HippoPololi_15, Horseradish_14, Jamzy_16, Juicebox_14, KayGee_12, Lauer_12, MAnor_13, MScarn_15, MaVan_15, Margaret_16, Mayweather_14, MunkgeeRoachy_14, Nibbles_15, Nina_14, Nodigi_15, Orla_15, Pons_13, PotPie_14, PsychoKiller_13, Quasar_13, RedBaron_14, SheckWes_12, SketchMex_12, Sleepyhead_13, Sopespian_13, SteamedHams_15, SummitAcademy_12, Survivors_15, SweatNTears_15, Tolls_15, Troje_13, Typhonomachy_14, Vine_14, Yakult_14, Yarn_12, Yummy_14, Zareef_17,

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

-

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

- Angelique_14, BeeGee_14, Bradissa_14, BritBrat_14, Cashline_14, Confidence_14, EMSquaredA_14, EnalisNailo_14, Floral_14, Jablanski_14, Lilas_14, LonelyBoi_14, Marteena_14, P3MA_13, Pollux_14, Posh_14, Pytheas_14, TPA4_13, Wrigley_14,

Summary by start number:

Start 7:

- Found in 19 of 82 (23.2%) of genes in pham
- Manual Annotations of this start: 17 of 67
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Angelique_14 (CY1), BeeGee_14 (CY), Bradissa_14 (CY1), BritBrat_14 (CY2), Cashline_14 (CY), Confidence_14 (CY1), EMSquaredA_14 (CY1), EnalisNailo_14 (CY1), Floral_14 (CY1), Jablanski_14 (CY), Lilas_14 (CY1), LonelyBoi_14 (CY), Marteena_14 (CY1), P3MA_13 (UNK), Pollux_14 (CY1), Posh_14 (CY), Pytheas_14 (CY), TPA4_13 (singleton), Wrigley_14 (CY),

Start 8:

- Found in 63 of 82 (76.8%) of genes in pham
- Manual Annotations of this start: 50 of 67
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agatha_13 (CT), AikoCarson_12 (CT), Amok_12 (CT), AndPeggy_12 (CT), Axym_13 (CT), Azira_15 (CT), BigChungus_12 (CT), BillDoor_15 (CT), Biskit_14 (CT), Burnsey_13 (CT), Button_14 (CT),

Buttrmlkdreams_13 (CT), CherryonLim_14 (CT), Cleo_13 (CT), Cozz_13 (CT), Dre3_13 (CT), Elinal_14 (CT), Elliott_13 (CT), Emalyn_12 (CT), Feastonyeet_12 (CT), Fribs8_14 (CT), GTE2_11 (CT), GiKK_16 (CT), Gibbous_13 (CT), GoldHunter_14 (CT), Hexbug_15 (CT), HippoPololi_15 (CT), Horseradish_14 (CT), Jamzy_16 (CT), Juicebox_14 (singleton), KayGee_12 (CT), Lauer_12 (CT), MAnor_13 (CT), MScarn_15 (CT), MaVan_15 (CT), Margaret_16 (CT), Mayweather_14 (CT), MunkgeeRoachy_14 (CT), Nibbles_15 (CT), Nina_14 (CT), Nodigi_15 (CT), Orla_15 (CT), Pons_13 (CT), PotPie_14 (CT), PsychoKiller_13 (CT), Quasar_13 (CT), RedBaron_14 (CT), SheckWes_12 (CT), SketchMex_12 (CT), Sleepyhead_13 (singleton), Sopespian_13 (CT), SteamedHams_15 (CT), SummitAcademy_12 (CT), Survivors_15 (CT), SweatNTears_15 (CT), Tolls_15 (CT), Troje_13 (CT), Typhonmarchy_14 (CT), Vine_14 (CT), Yakult_14 (CT), Yarn_12 (CT), Yummy_14 (CT), Zareef_17 (CT),

Summary by clusters:

There are 6 clusters represented in this pham: CY2, singleton, CY1, CY, UNK, CT,

Info for manual annotations of cluster CT:

- Start number 8 was manually annotated 48 times for cluster CT.

Info for manual annotations of cluster CY:

- Start number 7 was manually annotated 7 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 7 was manually annotated 9 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 7 was manually annotated 1 time for cluster CY2.

Gene Information:

Gene: Agatha_13 Start: 7939, Stop: 8781, Start Num: 8

Candidate Starts for Agatha_13:

(Start: 8 @7939 has 50 MA's), (10, 7972), (21, 8158), (28, 8230), (37, 8329), (47, 8431), (48, 8440), (49, 8446), (53, 8479), (59, 8515), (60, 8524), (78, 8710), (79, 8716),

Gene: AikoCarson_12 Start: 7662, Stop: 8510, Start Num: 8

Candidate Starts for AikoCarson_12:

(6, 7605), (Start: 8 @7662 has 50 MA's), (10, 7695), (21, 7881), (28, 7953), (43, 8118), (47, 8154), (48, 8163), (49, 8169), (53, 8202), (59, 8238), (60, 8247), (78, 8433), (79, 8439),

Gene: Amok_12 Start: 7662, Stop: 8510, Start Num: 8

Candidate Starts for Amok_12:

(6, 7605), (Start: 8 @7662 has 50 MA's), (10, 7695), (21, 7881), (28, 7953), (43, 8118), (47, 8154), (48, 8163), (49, 8169), (53, 8202), (59, 8238), (60, 8247), (78, 8433), (79, 8439),

Gene: AndPeggy_12 Start: 7953, Stop: 8798, Start Num: 8

Candidate Starts for AndPeggy_12:

(6, 7896), (Start: 8 @7953 has 50 MA's), (10, 7986), (21, 8172), (28, 8244), (47, 8445), (49, 8460), (53, 8493), (59, 8529), (60, 8538), (64, 8568), (78, 8724), (79, 8730),

Gene: Angelique_14 Start: 8715, Stop: 9560, Start Num: 7

Candidate Starts for Angelique_14:

(Start: 7 @8715 has 17 MA's), (13, 8796), (37, 9105), (39, 9114), (53, 9255), (73, 9396), (76, 9447),

Gene: Axym_13 Start: 7939, Stop: 8781, Start Num: 8

Candidate Starts for Axym_13:

(Start: 8 @7939 has 50 MA's), (10, 7972), (21, 8158), (28, 8230), (35, 8308), (37, 8329), (42, 8356), (47, 8431), (48, 8440), (49, 8446), (53, 8479), (59, 8515), (60, 8524), (78, 8710), (79, 8716),

Gene: Azira_15 Start: 8878, Stop: 9717, Start Num: 8

Candidate Starts for Azira_15:

(Start: 8 @8878 has 50 MA's), (10, 8911), (26, 9139), (32, 9220), (39, 9268), (43, 9325), (44, 9337), (47, 9361), (49, 9376), (63, 9469), (67, 9502), (68, 9514), (69, 9517), (80, 9652), (85, 9700),

Gene: BeeGee_14 Start: 8711, Stop: 9556, Start Num: 7

Candidate Starts for BeeGee_14:

(Start: 7 @8711 has 17 MA's), (12, 8780), (13, 8792), (31, 9056), (37, 9101), (39, 9110), (46, 9197), (53, 9251),

Gene: BigChungus_12 Start: 7726, Stop: 8565, Start Num: 8

Candidate Starts for BigChungus_12:

(5, 7612), (6, 7672), (Start: 8 @7726 has 50 MA's), (10, 7759), (21, 7945), (27, 8005), (28, 8017), (47, 8218), (48, 8227), (49, 8233), (53, 8266), (58, 8296), (64, 8341),

Gene: BillDoor_15 Start: 7918, Stop: 8763, Start Num: 8

Candidate Starts for BillDoor_15:

(6, 7861), (Start: 8 @7918 has 50 MA's), (10, 7951), (21, 8137), (28, 8209), (47, 8410), (49, 8425), (53, 8458), (59, 8494), (60, 8503), (64, 8533), (78, 8689), (79, 8695),

Gene: Biskit_14 Start: 7925, Stop: 8770, Start Num: 8

Candidate Starts for Biskit_14:

(5, 7808), (6, 7868), (Start: 8 @7925 has 50 MA's), (10, 7958), (21, 8144), (28, 8216), (47, 8417), (49, 8432), (53, 8465), (60, 8510), (78, 8696), (79, 8702),

Gene: Bradissa_14 Start: 8715, Stop: 9560, Start Num: 7

Candidate Starts for Bradissa_14:

(Start: 7 @8715 has 17 MA's), (13, 8796), (37, 9105), (39, 9114), (53, 9255), (70, 9372), (73, 9396), (76, 9447),

Gene: BritBrat_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for BritBrat_14:

(Start: 7 @8717 has 17 MA's), (12, 8786), (13, 8798), (31, 9062), (37, 9107), (39, 9116), (46, 9203), (53, 9257),

Gene: Burnsey_13 Start: 7940, Stop: 8782, Start Num: 8

Candidate Starts for Burnsey_13:

(Start: 8 @7940 has 50 MA's), (10, 7973), (21, 8159), (28, 8231), (37, 8330), (47, 8432), (48, 8441), (49, 8447), (53, 8480), (59, 8516), (60, 8525), (78, 8711), (79, 8717),

Gene: Button_14 Start: 7947, Stop: 8795, Start Num: 8

Candidate Starts for Button_14:

(Start: 8 @7947 has 50 MA's), (10, 7980), (16, 8076), (21, 8166), (32, 8307), (43, 8412), (44, 8424), (45, 8430), (47, 8448), (48, 8457), (49, 8463), (59, 8532), (63, 8556), (71, 8625), (72, 8634),

Gene: Buttrmlkdreams_13 Start: 7910, Stop: 8755, Start Num: 8

Candidate Starts for Buttrmlkdreams_13:

(5, 7793), (6, 7853), (Start: 8 @7910 has 50 MA's), (10, 7943), (21, 8129), (28, 8201), (47, 8402), (49, 8417), (53, 8450), (60, 8495), (78, 8681), (79, 8687),

Gene: Cashline_14 Start: 8571, Stop: 9416, Start Num: 7

Candidate Starts for Cashline_14:

(4, 8409), (Start: 7 @8571 has 17 MA's), (12, 8640), (13, 8652), (31, 8916), (37, 8961), (39, 8970), (40, 8982), (46, 9057), (53, 9111),

Gene: CherryonLim_14 Start: 8452, Stop: 9291, Start Num: 8

Candidate Starts for CherryonLim_14:

(5, 8338), (6, 8398), (Start: 8 @8452 has 50 MA's), (10, 8485), (21, 8671), (24, 8707), (27, 8731), (44, 8920), (47, 8944), (48, 8953), (49, 8959), (53, 8992), (58, 9022), (79, 9229),

Gene: Cleo_13 Start: 8168, Stop: 9007, Start Num: 8

Candidate Starts for Cleo_13:

(Start: 8 @8168 has 50 MA's), (10, 8201), (17, 8294), (26, 8429), (28, 8450), (29, 8453), (39, 8558), (47, 8651), (48, 8660), (49, 8666), (56, 8714), (68, 8804), (69, 8807), (80, 8942), (85, 8990),

Gene: Confidence_14 Start: 8711, Stop: 9556, Start Num: 7

Candidate Starts for Confidence_14:

(Start: 7 @8711 has 17 MA's), (12, 8780), (13, 8792), (31, 9056), (37, 9101), (39, 9110), (46, 9197), (53, 9251),

Gene: Cozz_13 Start: 7940, Stop: 8782, Start Num: 8

Candidate Starts for Cozz_13:

(Start: 8 @7940 has 50 MA's), (10, 7973), (21, 8159), (28, 8231), (35, 8309), (37, 8330), (42, 8357), (47, 8432), (48, 8441), (49, 8447), (53, 8480), (59, 8516), (60, 8525), (78, 8711), (79, 8717),

Gene: Dre3_13 Start: 8115, Stop: 8954, Start Num: 8

Candidate Starts for Dre3_13:

(Start: 8 @8115 has 50 MA's), (10, 8148), (26, 8376), (28, 8397), (29, 8400), (39, 8505), (44, 8574), (47, 8598), (48, 8607), (49, 8613), (56, 8661), (68, 8751), (69, 8754), (80, 8889), (85, 8937),

Gene: EMSquaredA_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for EMSquaredA_14:

(Start: 7 @8717 has 17 MA's), (12, 8786), (13, 8798), (31, 9062), (37, 9107), (39, 9116), (46, 9203), (53, 9257),

Gene: Elinal_14 Start: 7707, Stop: 8546, Start Num: 8

Candidate Starts for Elinal_14:

(5, 7593), (6, 7653), (Start: 8 @7707 has 50 MA's), (10, 7740), (21, 7926), (27, 7986), (28, 7998), (39, 8106), (47, 8199), (48, 8208), (49, 8214), (53, 8247), (58, 8277), (64, 8322), (75, 8412),

Gene: Elliott_13 Start: 7939, Stop: 8781, Start Num: 8

Candidate Starts for Elliott_13:

(Start: 8 @7939 has 50 MA's), (10, 7972), (21, 8158), (28, 8230), (37, 8329), (47, 8431), (48, 8440), (49, 8446), (53, 8479), (59, 8515), (60, 8524), (78, 8710), (79, 8716),

Gene: Emalyn_12 Start: 7661, Stop: 8509, Start Num: 8

Candidate Starts for Emalyn_12:

(6, 7604), (Start: 8 @7661 has 50 MA's), (10, 7694), (21, 7880), (28, 7952), (43, 8117), (47, 8153), (48, 8162), (49, 8168), (53, 8201), (59, 8237), (60, 8246), (78, 8432), (79, 8438),

Gene: EnalisNailo_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for EnalisNailo_14:

(Start: 7 @8717 has 17 MA's), (13, 8798), (37, 9107), (39, 9116), (53, 9257), (70, 9374), (73, 9398), (76, 9449),

Gene: Feastonyeet_12 Start: 7726, Stop: 8565, Start Num: 8

Candidate Starts for Feastonyeet_12:

(5, 7612), (6, 7672), (Start: 8 @7726 has 50 MA's), (10, 7759), (21, 7945), (27, 8005), (28, 8017), (47, 8218), (48, 8227), (49, 8233), (53, 8266), (58, 8296), (64, 8341),

Gene: Floral_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for Floral_14:

(Start: 7 @8717 has 17 MA's), (12, 8786), (13, 8798), (31, 9062), (37, 9107), (39, 9116), (46, 9203), (53, 9257),

Gene: Fribs8_14 Start: 8691, Stop: 9530, Start Num: 8

Candidate Starts for Fribs8_14:

(Start: 8 @8691 has 50 MA's), (10, 8724), (17, 8817), (26, 8952), (30, 9003), (39, 9081), (44, 9150), (47, 9174), (48, 9183), (49, 9189), (56, 9237), (69, 9330), (80, 9465), (82, 9483), (85, 9513),

Gene: GTE2_11 Start: 7614, Stop: 8459, Start Num: 8

Candidate Starts for GTE2_11:

(1, 7392), (2, 7428), (3, 7449), (5, 7497), (6, 7557), (Start: 8 @7614 has 50 MA's), (10, 7647), (21, 7833), (28, 7905), (47, 8106), (49, 8121), (53, 8154), (59, 8190), (60, 8199), (64, 8229), (78, 8385), (79, 8391),

Gene: GiKK_16 Start: 8250, Stop: 9098, Start Num: 8

Candidate Starts for GiKK_16:

(Start: 8 @8250 has 50 MA's), (10, 8283), (16, 8379), (21, 8469), (28, 8541), (30, 8571), (44, 8727), (45, 8733), (47, 8751), (49, 8766), (59, 8835), (71, 8928), (72, 8937),

Gene: Gibbous_13 Start: 8115, Stop: 8954, Start Num: 8

Candidate Starts for Gibbous_13:

(Start: 8 @8115 has 50 MA's), (10, 8148), (26, 8376), (28, 8397), (29, 8400), (39, 8505), (44, 8574), (47, 8598), (48, 8607), (49, 8613), (56, 8661), (68, 8751), (69, 8754), (80, 8889), (85, 8937),

Gene: GoldHunter_14 Start: 7940, Stop: 8782, Start Num: 8

Candidate Starts for GoldHunter_14:

(Start: 8 @7940 has 50 MA's), (10, 7973), (21, 8159), (28, 8231), (37, 8330), (47, 8432), (48, 8441), (49, 8447), (53, 8480), (59, 8516), (60, 8525), (78, 8711), (79, 8717),

Gene: Hexbug_15 Start: 8936, Stop: 9784, Start Num: 8

Candidate Starts for Hexbug_15:

(Start: 8 @8936 has 50 MA's), (10, 8969), (15, 9047), (19, 9077), (21, 9155), (28, 9227), (32, 9296), (34, 9311), (43, 9401), (44, 9413), (47, 9437), (49, 9452), (59, 9521), (64, 9560), (72, 9623), (80, 9728),

Gene: HippoPololi_15 Start: 8768, Stop: 9607, Start Num: 8

Candidate Starts for HippoPololi_15:

(Start: 8 @8768 has 50 MA's), (10, 8801), (17, 8894), (26, 9029), (39, 9158), (44, 9227), (47, 9251), (48, 9260), (49, 9266), (56, 9314), (69, 9407), (80, 9542), (85, 9590),

Gene: Horseradish_14 Start: 7821, Stop: 8666, Start Num: 8

Candidate Starts for Horseradish_14:

(Start: 8 @7821 has 50 MA's), (10, 7854), (21, 8040), (28, 8112), (47, 8313), (49, 8328), (53, 8361), (60, 8406), (78, 8592), (79, 8598),

Gene: Jablanski_14 Start: 8564, Stop: 9409, Start Num: 7

Candidate Starts for Jablanski_14:

(Start: 7 @8564 has 17 MA's), (12, 8633), (13, 8645), (31, 8909), (37, 8954), (39, 8963), (53, 9104),

Gene: Jamzy_16 Start: 8260, Stop: 9108, Start Num: 8

Candidate Starts for Jamzy_16:

(Start: 8 @8260 has 50 MA's), (10, 8293), (16, 8389), (21, 8479), (32, 8620), (43, 8725), (44, 8737), (45, 8743), (47, 8761), (48, 8770), (49, 8776), (59, 8845), (63, 8869), (71, 8938), (72, 8947), (80, 9052),

Gene: Juicebox_14 Start: 9288, Stop: 10136, Start Num: 8

Candidate Starts for Juicebox_14:

(Start: 8 @9288 has 50 MA's), (26, 9543), (36, 9648), (53, 9822), (62, 9879),

Gene: KayGee_12 Start: 7707, Stop: 8546, Start Num: 8

Candidate Starts for KayGee_12:

(5, 7593), (6, 7653), (Start: 8 @7707 has 50 MA's), (10, 7740), (21, 7926), (27, 7986), (28, 7998), (39, 8106), (47, 8199), (48, 8208), (49, 8214), (53, 8247), (58, 8277), (64, 8322), (75, 8412),

Gene: Lauer_12 Start: 7756, Stop: 8595, Start Num: 8

Candidate Starts for Lauer_12:

(5, 7642), (6, 7702), (Start: 8 @7756 has 50 MA's), (10, 7789), (21, 7975), (27, 8035), (28, 8047), (47, 8248), (48, 8257), (49, 8263), (53, 8296), (58, 8326), (64, 8371), (75, 8461),

Gene: Lilas_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for Lilas_14:

(Start: 7 @8717 has 17 MA's), (13, 8798), (37, 9107), (39, 9116), (53, 9257), (70, 9374), (73, 9398), (76, 9449),

Gene: LonelyBoi_14 Start: 8564, Stop: 9409, Start Num: 7

Candidate Starts for LonelyBoi_14:

(Start: 7 @8564 has 17 MA's), (13, 8645), (37, 8954), (39, 8963), (46, 9050), (53, 9104),

Gene: MAnor_13 Start: 7697, Stop: 8536, Start Num: 8

Candidate Starts for MAnor_13:

(5, 7583), (6, 7643), (Start: 8 @7697 has 50 MA's), (10, 7730), (21, 7916), (24, 7952), (27, 7976), (28, 7988), (47, 8189), (48, 8198), (49, 8204), (53, 8237), (58, 8267), (64, 8312), (79, 8474),

Gene: MScarn_15 Start: 7910, Stop: 8755, Start Num: 8

Candidate Starts for MScarn_15:

(5, 7793), (6, 7853), (Start: 8 @7910 has 50 MA's), (10, 7943), (21, 8129), (28, 8201), (47, 8402), (49, 8417), (53, 8450), (60, 8495), (78, 8681), (79, 8687),

Gene: MaVan_15 Start: 8878, Stop: 9717, Start Num: 8

Candidate Starts for MaVan_15:

(Start: 8 @8878 has 50 MA's), (10, 8911), (26, 9139), (32, 9220), (39, 9268), (43, 9325), (44, 9337), (47, 9361), (49, 9376), (63, 9469), (67, 9502), (68, 9514), (69, 9517), (80, 9652), (85, 9700),

Gene: Margaret_16 Start: 8645, Stop: 9493, Start Num: 8

Candidate Starts for Margaret_16:

(Start: 8 @8645 has 50 MA's), (10, 8678), (21, 8864), (34, 9020), (43, 9110), (44, 9122), (47, 9146), (49, 9161), (59, 9230), (63, 9254), (71, 9323), (72, 9332), (84, 9476),

Gene: Marteena_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for Marteena_14:

(Start: 7 @8717 has 17 MA's), (12, 8786), (13, 8798), (31, 9062), (37, 9107), (39, 9116), (46, 9203), (53, 9257),

Gene: Mayweather_14 Start: 8330, Stop: 9166, Start Num: 8

Candidate Starts for Mayweather_14:

(1, 8111), (3, 8168), (5, 8216), (6, 8276), (Start: 8 @8330 has 50 MA's), (10, 8363), (21, 8549), (27, 8609), (47, 8822), (48, 8831), (49, 8837), (53, 8870), (58, 8900), (64, 8945), (79, 9107),

Gene: MunkgeeRoachy_14 Start: 7987, Stop: 8829, Start Num: 8

Candidate Starts for MunkgeeRoachy_14:

(Start: 8 @7987 has 50 MA's), (10, 8020), (21, 8206), (28, 8278), (37, 8377), (47, 8479), (48, 8488), (49, 8494), (53, 8527), (59, 8563), (60, 8572), (78, 8758), (79, 8764),

Gene: Nibbles_15 Start: 8878, Stop: 9717, Start Num: 8

Candidate Starts for Nibbles_15:

(Start: 8 @8878 has 50 MA's), (10, 8911), (26, 9139), (32, 9220), (39, 9268), (43, 9325), (44, 9337), (47, 9361), (49, 9376), (63, 9469), (67, 9502), (68, 9514), (69, 9517), (80, 9652), (85, 9700),

Gene: Nina_14 Start: 8973, Stop: 9815, Start Num: 8

Candidate Starts for Nina_14:

(Start: 8 @8973 has 50 MA's), (10, 9006), (28, 9264), (37, 9363), (47, 9465), (48, 9474), (49, 9480), (53, 9513), (59, 9549), (60, 9558), (78, 9744), (79, 9750),

Gene: Nodigi_15 Start: 8929, Stop: 9777, Start Num: 8

Candidate Starts for Nodigi_15:

(Start: 8 @8929 has 50 MA's), (10, 8962), (19, 9070), (21, 9148), (28, 9220), (34, 9304), (43, 9394), (44, 9406), (47, 9430), (49, 9445), (59, 9514), (64, 9553), (72, 9616), (80, 9721),

Gene: Orla_15 Start: 8933, Stop: 9781, Start Num: 8

Candidate Starts for Orla_15:

(Start: 8 @8933 has 50 MA's), (10, 8966), (19, 9074), (21, 9152), (28, 9224), (34, 9308), (43, 9398), (44, 9410), (47, 9434), (49, 9449), (59, 9518), (64, 9557), (72, 9620), (80, 9725),

Gene: P3MA_13 Start: 8229, Stop: 9089, Start Num: 7

Candidate Starts for P3MA_13:

(Start: 7 @8229 has 17 MA's), (22, 8448), (23, 8457), (28, 8517), (29, 8520), (30, 8547), (33, 8595), (35, 8610), (38, 8634), (39, 8640), (41, 8655), (50, 8754), (52, 8766), (55, 8799), (60, 8832), (65, 8874), (66, 8877), (74, 8937), (80, 9021), (81, 9030), (83, 9066),

Gene: Pollux_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for Pollux_14:

(Start: 7 @8717 has 17 MA's), (12, 8786), (13, 8798), (31, 9062), (37, 9107), (39, 9116), (46, 9203), (53, 9257),

Gene: Pons_13 Start: 7709, Stop: 8545, Start Num: 8

Candidate Starts for Pons_13:

(1, 7490), (3, 7547), (5, 7595), (6, 7655), (Start: 8 @7709 has 50 MA's), (10, 7742), (21, 7928), (27, 7988), (28, 8000), (47, 8201), (48, 8210), (49, 8216), (53, 8249), (58, 8279), (64, 8324), (79, 8486),

Gene: Posh_14 Start: 8717, Stop: 9562, Start Num: 7

Candidate Starts for Posh_14:

(Start: 7 @8717 has 17 MA's), (12, 8786), (13, 8798), (31, 9062), (37, 9107), (39, 9116), (46, 9203), (53, 9257),

Gene: PotPie_14 Start: 8560, Stop: 9399, Start Num: 8

Candidate Starts for PotPie_14:

(5, 8446), (6, 8506), (Start: 8 @8560 has 50 MA's), (10, 8593), (21, 8779), (27, 8839), (28, 8851), (47, 9052), (48, 9061), (49, 9067), (53, 9100), (58, 9130), (64, 9175), (75, 9265),

Gene: PsychoKiller_13 Start: 7939, Stop: 8781, Start Num: 8

Candidate Starts for PsychoKiller_13:

(Start: 8 @7939 has 50 MA's), (10, 7972), (21, 8158), (28, 8230), (37, 8329), (47, 8431), (48, 8440), (49, 8446), (53, 8479), (59, 8515), (60, 8524), (78, 8710), (79, 8716),

Gene: Pytheas_14 Start: 8564, Stop: 9409, Start Num: 7

Candidate Starts for Pytheas_14:

(Start: 7 @8564 has 17 MA's), (12, 8633), (13, 8645), (31, 8909), (37, 8954), (39, 8963), (53, 9104),

Gene: Quasar_13 Start: 8548, Stop: 9390, Start Num: 8

Candidate Starts for Quasar_13:

(Start: 8 @8548 has 50 MA's), (10, 8581), (28, 8839), (37, 8938), (47, 9040), (48, 9049), (49, 9055), (53, 9088), (59, 9124), (60, 9133), (78, 9319), (79, 9325),

Gene: RedBaron_14 Start: 7984, Stop: 8826, Start Num: 8

Candidate Starts for RedBaron_14:

(Start: 8 @7984 has 50 MA's), (10, 8017), (21, 8203), (28, 8275), (37, 8374), (47, 8476), (48, 8485), (49, 8491), (53, 8524), (59, 8560), (60, 8569), (78, 8755), (79, 8761),

Gene: SheckWes_12 Start: 7697, Stop: 8533, Start Num: 8

Candidate Starts for SheckWes_12:

(5, 7583), (6, 7643), (Start: 8 @7697 has 50 MA's), (10, 7730), (21, 7916), (27, 7976), (28, 7988), (47, 8189), (48, 8198), (49, 8204), (53, 8237), (58, 8267), (64, 8312), (79, 8474),

Gene: SketchMex_12 Start: 7925, Stop: 8770, Start Num: 8

Candidate Starts for SketchMex_12:

(5, 7808), (6, 7868), (Start: 8 @7925 has 50 MA's), (10, 7958), (21, 8144), (28, 8216), (47, 8417), (49, 8432), (53, 8465), (60, 8510), (78, 8696), (79, 8702),

Gene: Sleepyhead_13 Start: 8334, Stop: 9200, Start Num: 8

Candidate Starts for Sleepyhead_13:

(Start: 8 @8334 has 50 MA's), (9, 8361), (11, 8388), (20, 8526), (45, 8811), (60, 8949),

Gene: Sopespian_13 Start: 7939, Stop: 8781, Start Num: 8

Candidate Starts for Sopespian_13:

(Start: 8 @7939 has 50 MA's), (10, 7972), (21, 8158), (28, 8230), (37, 8329), (47, 8431), (48, 8440), (49, 8446), (53, 8479), (59, 8515), (60, 8524), (78, 8710), (79, 8716),

Gene: SteamedHams_15 Start: 7954, Stop: 8799, Start Num: 8

Candidate Starts for SteamedHams_15:

(6, 7897), (Start: 8 @7954 has 50 MA's), (10, 7987), (21, 8173), (28, 8245), (47, 8446), (49, 8461), (53, 8494), (59, 8530), (60, 8539), (64, 8569), (78, 8725), (79, 8731),

Gene: SummitAcademy_12 Start: 7775, Stop: 8614, Start Num: 8

Candidate Starts for SummitAcademy_12:

(5, 7661), (6, 7721), (Start: 8 @7775 has 50 MA's), (10, 7808), (21, 7994), (27, 8054), (28, 8066), (47, 8267), (48, 8276), (49, 8282), (53, 8315), (58, 8345), (64, 8390), (75, 8480),

Gene: Survivors_15 Start: 8732, Stop: 9571, Start Num: 8

Candidate Starts for Survivors_15:

(Start: 8 @8732 has 50 MA's), (10, 8765), (26, 8993), (32, 9074), (39, 9122), (43, 9179), (44, 9191), (47, 9215), (49, 9230), (63, 9323), (67, 9356), (68, 9368), (69, 9371), (80, 9506), (85, 9554),

Gene: SweatNTears_15 Start: 8436, Stop: 9281, Start Num: 8

Candidate Starts for SweatNTears_15:

(5, 8319), (6, 8379), (Start: 8 @8436 has 50 MA's), (10, 8469), (21, 8655), (28, 8727), (47, 8928), (49, 8943), (53, 8976), (60, 9021), (78, 9207), (79, 9213),

Gene: TPA4_13 Start: 9127, Stop: 9984, Start Num: 7

Candidate Starts for TPA4_13:

(Start: 7 @9127 has 17 MA's), (18, 9256), (25, 9376), (28, 9406), (47, 9625), (50, 9646), (51, 9649), (54, 9688), (57, 9700), (76, 9868), (77, 9898), (81, 9928), (83, 9964),

Gene: Tolls_15 Start: 7957, Stop: 8802, Start Num: 8

Candidate Starts for Tolls_15:

(6, 7900), (Start: 8 @7957 has 50 MA's), (10, 7990), (21, 8176), (28, 8248), (47, 8449), (49, 8464), (53, 8497), (59, 8533), (60, 8542), (64, 8572), (78, 8728), (79, 8734),

Gene: Troje_13 Start: 7910, Stop: 8755, Start Num: 8

Candidate Starts for Troje_13:

(5, 7793), (6, 7853), (Start: 8 @7910 has 50 MA's), (10, 7943), (21, 8129), (28, 8201), (47, 8402), (49, 8417), (53, 8450), (60, 8495), (78, 8681), (79, 8687),

Gene: Typhonomachy_14 Start: 7939, Stop: 8781, Start Num: 8

Candidate Starts for Typhonomachy_14:

(Start: 8 @7939 has 50 MA's), (10, 7972), (21, 8158), (28, 8230), (37, 8329), (47, 8431), (48, 8440), (49, 8446), (53, 8479), (59, 8515), (60, 8524), (78, 8710), (79, 8716),

Gene: Vine_14 Start: 8704, Stop: 9543, Start Num: 8

Candidate Starts for Vine_14:

(5, 8590), (6, 8650), (Start: 8 @8704 has 50 MA's), (10, 8737), (21, 8923), (27, 8983), (28, 8995), (47, 9196), (48, 9205), (49, 9211), (53, 9244), (58, 9274), (64, 9319), (75, 9409),

Gene: Wrigley_14 Start: 8561, Stop: 9406, Start Num: 7

Candidate Starts for Wrigley_14:

(Start: 7 @8561 has 17 MA's), (12, 8630), (13, 8642), (31, 8906), (37, 8951), (39, 8960), (46, 9047), (53, 9101),

Gene: Yakult_14 Start: 7841, Stop: 8674, Start Num: 8

Candidate Starts for Yakult_14:

(Start: 8 @7841 has 50 MA's), (10, 7874), (14, 7946), (17, 7964), (19, 7970), (21, 8048), (32, 8189), (34, 8204), (43, 8294), (44, 8306), (45, 8312), (47, 8330), (49, 8345), (61, 8423), (63, 8435), (72, 8513), (78, 8609), (84, 8657),

Gene: Yarn_12 Start: 7947, Stop: 8792, Start Num: 8

Candidate Starts for Yarn_12:

(6, 7890), (Start: 8 @7947 has 50 MA's), (10, 7980), (21, 8166), (28, 8238), (47, 8439), (49, 8454), (53, 8487), (59, 8523), (60, 8532), (64, 8562), (78, 8718), (79, 8724),

Gene: Yummy_14 Start: 7821, Stop: 8666, Start Num: 8

Candidate Starts for Yummy_14:

(Start: 8 @7821 has 50 MA's), (10, 7854), (21, 8040), (28, 8112), (47, 8313), (49, 8328), (53, 8361), (60, 8406), (78, 8592), (79, 8598),

Gene: Zareef_17 Start: 8879, Stop: 9718, Start Num: 8

Candidate Starts for Zareef_17:

(Start: 8 @8879 has 50 MA's), (10, 8912), (26, 9140), (32, 9221), (39, 9269), (43, 9326), (44, 9338), (47, 9362), (49, 9377), (63, 9470), (67, 9503), (68, 9515), (69, 9518), (80, 9653), (85, 9701),