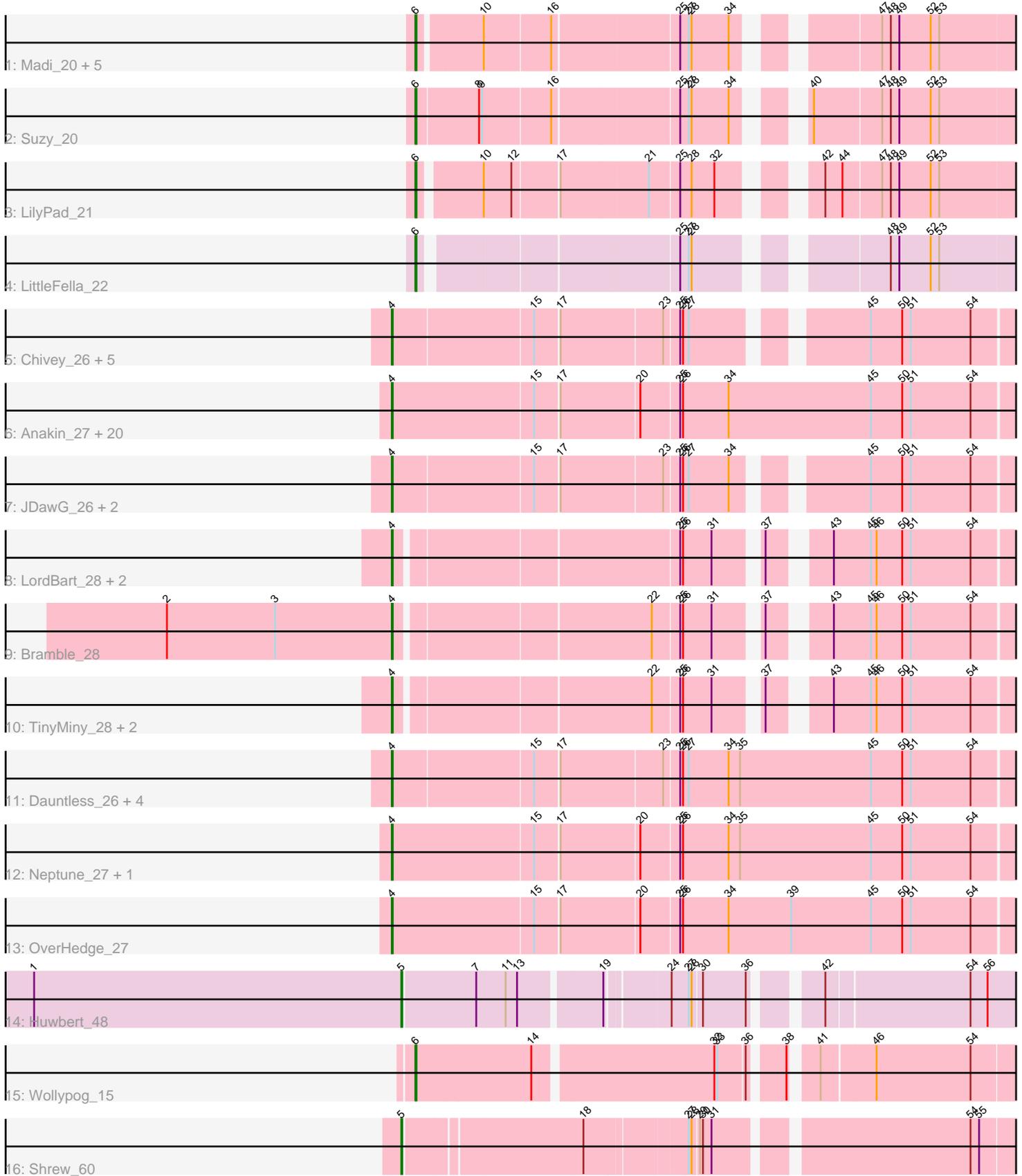# Pham 291204

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 291204 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291204 has 57 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Madi_20, BiteSize_20, Beyoncage_20, Terapin_20, Djokovic_20, Sienna_20
• Track 2 : Suzy_20
• Track 3 : LilyPad_21
• Track 4 : LittleFella_22
• Track 5 : Chivey_26, Hiddenleaf_26, DannyDe_26, Snakehole_28, FreddieHg_26, SilentWarrior_26
• Track 6 : Anakin_27, OhDear_27, Krampus_27, Karate_26, FountainFog_26, Potty_27, Poultress_26, Haunter_27, Artiphact_27, Tedro_27, PhunaPhoke_27, Kate_27, AnnaSerena_27, CoolCookie_27, Tongui_26, Rie18_27, Rachella_27, Hager_28, Gilda_27, Pharpay_27, NarutoRun_27
• Track 7 : JDawG_26, Aesir_26, MortySmith_25
• Track 8 : LordBart_28, Ajin_28, Sparcetus_28
• Track 9 : Bramble_28
• Track 10 : TinyMiny_28, Kors_28, RikSengupta_28
• Track 11 : Dauntless_26, JingleBells_26, Crestdrop_26, Annapurna_26, Erudite_26
• Track 12 : Neptune_27, Cybele_27
• Track 13 : OverHedge_27
• Track 14 : Huwbert_48
• Track 15 : Wollypog_15
• Track 16 : Shrew_60

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

The start number called the most often in the published annotations is 4, it was called in 41 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aesir_26, Ajin_28, Anakin_27, AnnaSerena_27, Annapurna_26, Artiphact_27, Bramble_28, Chivey_26, CoolCookie_27, Crestdrop_26, Cybele_27, DannyDe_26, Dauntless_26, Erudite_26, FountainFog_26, FreddieHg_26, Gilda_27, Hager_28, Haunter_27, Hiddenleaf_26, JDawG_26, JingleBells_26, Karate_26, Kate_27, Kors_28, Krampus_27, LordBart_28, MortySmith_25, NarutoRun_27, Neptune_27, OhDear_27, OverHedge_27, Pharpay_27, PhunaPhoke_27, Potty_27, Poultress_26,

Rachella_27, Rie18_27, RikSengupta_28, SilentWarrior_26, Snakehole_28, Sparcetus_28, Tedro_27, TinyMiny_28, Tongui_26,

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

Genes that do not have the "Most Annotated" start:
• Beyoncage_20, BiteSize_20, Djokovic_20, Huwbert_48, LilyPad_21, LittleFella_22, Madi_20, Shrew_60, Sienna_20, Suzy_20, Terapin_20, Wollypog_15,

Summary by start number:

Start 4:
• Found in 45 of 57 (78.9%) of genes in pham
• Manual Annotations of this start: 41 of 53
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aesir_26 (EF), Ajin_28 (EF), Anakin_27 (EF), AnnaSerena_27 (EF), Annapurna_26 (EF), Artiphact_27 (EF), Bramble_28 (EF), Chivey_26 (EF), CoolCookie_27 (EF), Crestdrop_26 (EF), Cybele_27 (EF), DannyDe_26 (EF), Dauntless_26 (EF), Erudite_26 (EF), FountainFog_26 (EF), FreddieHg_26 (EF), Gilda_27 (EF), Hager_28 (EF), Haunter_27 (EF), Hiddenleaf_26 (EF), JDawG_26 (EF), JingleBells_26 (EF), Karate_26 (EF), Kate_27 (EF), Kors_28 (EF), Krampus_27 (EF), LordBart_28 (EF), MortySmith_25 (EF), NarutoRun_27 (EF), Neptune_27 (EF), OhDear_27 (EF), OverHedge_27 (EF), Pharpay_27 (EF), PhunaPhoke_27 (EF), Potty_27 (EF), Poultress_26 (EF), Rachella_27 (EF), Rie18_27 (EF), RikSengupta_28 (EF), SilentWarrior_26 (EF), Snakehole_28 (EF), Sparcetus_28 (EF), Tedro_27 (EF), TinyMiny_28 (EF), Tongui_26 (EF),

Start 5:
• Found in 2 of 57 (3.5%) of genes in pham
• Manual Annotations of this start: 2 of 53
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Huwbert_48 (GG), Shrew_60 (singleton),

Start 6:
• Found in 10 of 57 (17.5%) of genes in pham
• Manual Annotations of this start: 10 of 53
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beyoncage_20 (DG1), BiteSize_20 (DG1), Djokovic_20 (DG1), LilyPad_21 (DG1), LittleFella_22 (DG2), Madi_20 (DG1), Sienna_20 (DG1), Suzy_20 (DG1), Terapin_20 (DG1), Wollypog_15 (singleton),

Summary by clusters:

There are 5 clusters represented in this pham: GG, DG2, singleton, DG1, EF,

Info for manual annotations of cluster DG1:
•Start number 6 was manually annotated 8 times for cluster DG1.

Info for manual annotations of cluster DG2:
•Start number 6 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster EF:

•Start number 4 was manually annotated 41 times for cluster EF.

Info for manual annotations of cluster GG:
•Start number 5 was manually annotated 1 time for cluster GG.

Gene Information:

Gene: Aesir_26 Start: 13825, Stop: 14427, Start Num: 4
Candidate Starts for Aesir_26:
(Start: 4 @13825 has 41 MA's), (15, 13969), (17, 13993), (23, 14098), (25, 14113), (26, 14116), (27, 14122), (34, 14164), (45, 14275), (50, 14308), (51, 14317), (54, 14380),

Gene: Ajin_28 Start: 13971, Stop: 14564, Start Num: 4
Candidate Starts for Ajin_28:
(Start: 4 @13971 has 41 MA's), (25, 14253), (26, 14256), (31, 14286), (37, 14325), (43, 14373), (45, 14412), (46, 14418), (50, 14445), (51, 14454), (54, 14517),

Gene: Anakin_27 Start: 14035, Stop: 14679, Start Num: 4
Candidate Starts for Anakin_27:
(Start: 4 @14035 has 41 MA's), (15, 14182), (17, 14206), (20, 14287), (25, 14326), (26, 14329), (34, 14377), (45, 14527), (50, 14560), (51, 14569), (54, 14632),

Gene: AnnaSerena_27 Start: 14044, Stop: 14688, Start Num: 4
Candidate Starts for AnnaSerena_27:
(Start: 4 @14044 has 41 MA's), (15, 14191), (17, 14215), (20, 14296), (25, 14335), (26, 14338), (34, 14386), (45, 14536), (50, 14569), (51, 14578), (54, 14641),

Gene: Annapurna_26 Start: 13248, Stop: 13889, Start Num: 4
Candidate Starts for Annapurna_26:
(Start: 4 @13248 has 41 MA's), (15, 13392), (17, 13416), (23, 13521), (25, 13536), (26, 13539), (27, 13545), (34, 13587), (35, 13599), (45, 13737), (50, 13770), (51, 13779), (54, 13842),

Gene: Artiphact_27 Start: 14036, Stop: 14680, Start Num: 4
Candidate Starts for Artiphact_27:
(Start: 4 @14036 has 41 MA's), (15, 14183), (17, 14207), (20, 14288), (25, 14327), (26, 14330), (34, 14378), (45, 14528), (50, 14561), (51, 14570), (54, 14633),

Gene: Beyoncage_20 Start: 11749, Stop: 12312, Start Num: 6
Candidate Starts for Beyoncage_20:
(Start: 6 @11749 has 10 MA's), (10, 11812), (16, 11878), (25, 12004), (27, 12013), (28, 12016), (34, 12055), (47, 12169), (48, 12178), (49, 12187), (52, 12220), (53, 12229),

Gene: BiteSize_20 Start: 11749, Stop: 12312, Start Num: 6
Candidate Starts for BiteSize_20:
(Start: 6 @11749 has 10 MA's), (10, 11812), (16, 11878), (25, 12004), (27, 12013), (28, 12016), (34, 12055), (47, 12169), (48, 12178), (49, 12187), (52, 12220), (53, 12229),

Gene: Bramble_28 Start: 13937, Stop: 14530, Start Num: 4
Candidate Starts for Bramble_28:
(2, 13700), (3, 13814), (Start: 4 @13937 has 41 MA's), (22, 14192), (25, 14219), (26, 14222), (31, 14252), (37, 14291), (43, 14339), (45, 14378), (46, 14384), (50, 14411), (51, 14420), (54, 14483),

Gene: Chivey_26 Start: 13241, Stop: 13843, Start Num: 4
Candidate Starts for Chivey_26:
(Start: 4 @13241 has 41 MA's), (15, 13385), (17, 13409), (23, 13514), (25, 13529), (26, 13532), (27, 13538), (45, 13691), (50, 13724), (51, 13733), (54, 13796),

Gene: CoolCookie_27 Start: 14042, Stop: 14686, Start Num: 4
Candidate Starts for CoolCookie_27:
(Start: 4 @14042 has 41 MA's), (15, 14189), (17, 14213), (20, 14294), (25, 14333), (26, 14336), (34, 14384), (45, 14534), (50, 14567), (51, 14576), (54, 14639),

Gene: Crestdrop_26 Start: 13111, Stop: 13752, Start Num: 4
Candidate Starts for Crestdrop_26:
(Start: 4 @13111 has 41 MA's), (15, 13255), (17, 13279), (23, 13384), (25, 13399), (26, 13402), (27, 13408), (34, 13450), (35, 13462), (45, 13600), (50, 13633), (51, 13642), (54, 13705),

Gene: Cybele_27 Start: 14012, Stop: 14656, Start Num: 4
Candidate Starts for Cybele_27:
(Start: 4 @14012 has 41 MA's), (15, 14159), (17, 14183), (20, 14264), (25, 14303), (26, 14306), (34, 14354), (35, 14366), (45, 14504), (50, 14537), (51, 14546), (54, 14609),

Gene: DannyDe_26 Start: 13233, Stop: 13835, Start Num: 4
Candidate Starts for DannyDe_26:
(Start: 4 @13233 has 41 MA's), (15, 13377), (17, 13401), (23, 13506), (25, 13521), (26, 13524), (27, 13530), (45, 13683), (50, 13716), (51, 13725), (54, 13788),

Gene: Dauntless_26 Start: 13754, Stop: 14395, Start Num: 4
Candidate Starts for Dauntless_26:
(Start: 4 @13754 has 41 MA's), (15, 13898), (17, 13922), (23, 14027), (25, 14042), (26, 14045), (27, 14051), (34, 14093), (35, 14105), (45, 14243), (50, 14276), (51, 14285), (54, 14348),

Gene: Djokovic_20 Start: 11749, Stop: 12312, Start Num: 6
Candidate Starts for Djokovic_20:
(Start: 6 @11749 has 10 MA's), (10, 11812), (16, 11878), (25, 12004), (27, 12013), (28, 12016), (34, 12055), (47, 12169), (48, 12178), (49, 12187), (52, 12220), (53, 12229),

Gene: Erudite_26 Start: 13754, Stop: 14395, Start Num: 4
Candidate Starts for Erudite_26:
(Start: 4 @13754 has 41 MA's), (15, 13898), (17, 13922), (23, 14027), (25, 14042), (26, 14045), (27, 14051), (34, 14093), (35, 14105), (45, 14243), (50, 14276), (51, 14285), (54, 14348),

Gene: FountainFog_26 Start: 13354, Stop: 13998, Start Num: 4
Candidate Starts for FountainFog_26:
(Start: 4 @13354 has 41 MA's), (15, 13501), (17, 13525), (20, 13606), (25, 13645), (26, 13648), (34, 13696), (45, 13846), (50, 13879), (51, 13888), (54, 13951),

Gene: FreddieHg_26 Start: 13257, Stop: 13859, Start Num: 4
Candidate Starts for FreddieHg_26:
(Start: 4 @13257 has 41 MA's), (15, 13401), (17, 13425), (23, 13530), (25, 13545), (26, 13548), (27, 13554), (45, 13707), (50, 13740), (51, 13749), (54, 13812),

Gene: Gilda_27 Start: 14036, Stop: 14680, Start Num: 4
Candidate Starts for Gilda_27:

(Start: 4 @14036 has 41 MA's), (15, 14183), (17, 14207), (20, 14288), (25, 14327), (26, 14330), (34, 14378), (45, 14528), (50, 14561), (51, 14570), (54, 14633),

Gene: Hager_28 Start: 13598, Stop: 14242, Start Num: 4
Candidate Starts for Hager_28:
(Start: 4 @13598 has 41 MA's), (15, 13745), (17, 13769), (20, 13850), (25, 13889), (26, 13892), (34, 13940), (45, 14090), (50, 14123), (51, 14132), (54, 14195),

Gene: Haunter_27 Start: 13449, Stop: 14093, Start Num: 4
Candidate Starts for Haunter_27:
(Start: 4 @13449 has 41 MA's), (15, 13596), (17, 13620), (20, 13701), (25, 13740), (26, 13743), (34, 13791), (45, 13941), (50, 13974), (51, 13983), (54, 14046),

Gene: Hiddenleaf_26 Start: 13241, Stop: 13843, Start Num: 4
Candidate Starts for Hiddenleaf_26:
(Start: 4 @13241 has 41 MA's), (15, 13385), (17, 13409), (23, 13514), (25, 13529), (26, 13532), (27, 13538), (45, 13691), (50, 13724), (51, 13733), (54, 13796),

Gene: Huwbert_48 Start: 24385, Stop: 24990, Start Num: 5
Candidate Starts for Huwbert_48:
(1, 23998), (Start: 5 @24385 has 2 MA's), (7, 24460), (11, 24490), (13, 24502), (19, 24583), (24, 24643), (27, 24661), (28, 24664), (30, 24673), (36, 24718), (42, 24775), (54, 24919), (56, 24937),

Gene: JDawG_26 Start: 13823, Stop: 14425, Start Num: 4
Candidate Starts for JDawG_26:
(Start: 4 @13823 has 41 MA's), (15, 13967), (17, 13991), (23, 14096), (25, 14111), (26, 14114), (27, 14120), (34, 14162), (45, 14273), (50, 14306), (51, 14315), (54, 14378),

Gene: JingleBells_26 Start: 13318, Stop: 13959, Start Num: 4
Candidate Starts for JingleBells_26:
(Start: 4 @13318 has 41 MA's), (15, 13462), (17, 13486), (23, 13591), (25, 13606), (26, 13609), (27, 13615), (34, 13657), (35, 13669), (45, 13807), (50, 13840), (51, 13849), (54, 13912),

Gene: Karate_26 Start: 13448, Stop: 14092, Start Num: 4
Candidate Starts for Karate_26:
(Start: 4 @13448 has 41 MA's), (15, 13595), (17, 13619), (20, 13700), (25, 13739), (26, 13742), (34, 13790), (45, 13940), (50, 13973), (51, 13982), (54, 14045),

Gene: Kate_27 Start: 14044, Stop: 14688, Start Num: 4
Candidate Starts for Kate_27:
(Start: 4 @14044 has 41 MA's), (15, 14191), (17, 14215), (20, 14296), (25, 14335), (26, 14338), (34, 14386), (45, 14536), (50, 14569), (51, 14578), (54, 14641),

Gene: Kors_28 Start: 14017, Stop: 14610, Start Num: 4
Candidate Starts for Kors_28:
(Start: 4 @14017 has 41 MA's), (22, 14272), (25, 14299), (26, 14302), (31, 14332), (37, 14371), (43, 14419), (45, 14458), (46, 14464), (50, 14491), (51, 14500), (54, 14563),

Gene: Krampus_27 Start: 14042, Stop: 14686, Start Num: 4
Candidate Starts for Krampus_27:
(Start: 4 @14042 has 41 MA's), (15, 14189), (17, 14213), (20, 14294), (25, 14333), (26, 14336), (34, 14384), (45, 14534), (50, 14567), (51, 14576), (54, 14639),

Gene: LilyPad_21 Start: 12413, Stop: 12973, Start Num: 6
Candidate Starts for LilyPad_21:
(Start: 6 @12413 has 10 MA's), (10, 12473), (12, 12500), (17, 12545), (21, 12635), (25, 12665), (28, 12677), (32, 12701), (42, 12773), (44, 12791), (47, 12830), (48, 12839), (49, 12848), (52, 12881), (53, 12890),

Gene: LittleFella_22 Start: 14288, Stop: 14845, Start Num: 6
Candidate Starts for LittleFella_22:
(Start: 6 @14288 has 10 MA's), (25, 14537), (27, 14546), (28, 14549), (48, 14711), (49, 14720), (52, 14753), (53, 14762),

Gene: LordBart_28 Start: 13933, Stop: 14526, Start Num: 4
Candidate Starts for LordBart_28:
(Start: 4 @13933 has 41 MA's), (25, 14215), (26, 14218), (31, 14248), (37, 14287), (43, 14335), (45, 14374), (46, 14380), (50, 14407), (51, 14416), (54, 14479),

Gene: Madi_20 Start: 11749, Stop: 12312, Start Num: 6
Candidate Starts for Madi_20:
(Start: 6 @11749 has 10 MA's), (10, 11812), (16, 11878), (25, 12004), (27, 12013), (28, 12016), (34, 12055), (47, 12169), (48, 12178), (49, 12187), (52, 12220), (53, 12229),

Gene: MortySmith_25 Start: 13216, Stop: 13818, Start Num: 4
Candidate Starts for MortySmith_25:
(Start: 4 @13216 has 41 MA's), (15, 13360), (17, 13384), (23, 13489), (25, 13504), (26, 13507), (27, 13513), (34, 13555), (45, 13666), (50, 13699), (51, 13708), (54, 13771),

Gene: NarutoRun_27 Start: 14035, Stop: 14679, Start Num: 4
Candidate Starts for NarutoRun_27:
(Start: 4 @14035 has 41 MA's), (15, 14182), (17, 14206), (20, 14287), (25, 14326), (26, 14329), (34, 14377), (45, 14527), (50, 14560), (51, 14569), (54, 14632),

Gene: Neptune_27 Start: 14012, Stop: 14656, Start Num: 4
Candidate Starts for Neptune_27:
(Start: 4 @14012 has 41 MA's), (15, 14159), (17, 14183), (20, 14264), (25, 14303), (26, 14306), (34, 14354), (35, 14366), (45, 14504), (50, 14537), (51, 14546), (54, 14609),

Gene: OhDear_27 Start: 14041, Stop: 14685, Start Num: 4
Candidate Starts for OhDear_27:
(Start: 4 @14041 has 41 MA's), (15, 14188), (17, 14212), (20, 14293), (25, 14332), (26, 14335), (34, 14383), (45, 14533), (50, 14566), (51, 14575), (54, 14638),

Gene: OverHedge_27 Start: 14002, Stop: 14646, Start Num: 4
Candidate Starts for OverHedge_27:
(Start: 4 @14002 has 41 MA's), (15, 14149), (17, 14173), (20, 14254), (25, 14293), (26, 14296), (34, 14344), (39, 14410), (45, 14494), (50, 14527), (51, 14536), (54, 14599),

Gene: Pharpay_27 Start: 14057, Stop: 14701, Start Num: 4
Candidate Starts for Pharpay_27:
(Start: 4 @14057 has 41 MA's), (15, 14204), (17, 14228), (20, 14309), (25, 14348), (26, 14351), (34, 14399), (45, 14549), (50, 14582), (51, 14591), (54, 14654),

Gene: PhunaPhoke_27 Start: 14030, Stop: 14674, Start Num: 4
Candidate Starts for PhunaPhoke_27:

(Start: 4 @14030 has 41 MA's), (15, 14177), (17, 14201), (20, 14282), (25, 14321), (26, 14324), (34, 14372), (45, 14522), (50, 14555), (51, 14564), (54, 14627),

Gene: Potty_27 Start: 14035, Stop: 14679, Start Num: 4
Candidate Starts for Potty_27:
(Start: 4 @14035 has 41 MA's), (15, 14182), (17, 14206), (20, 14287), (25, 14326), (26, 14329), (34, 14377), (45, 14527), (50, 14560), (51, 14569), (54, 14632),

Gene: Poultress_26 Start: 13799, Stop: 14443, Start Num: 4
Candidate Starts for Poultress_26:
(Start: 4 @13799 has 41 MA's), (15, 13946), (17, 13970), (20, 14051), (25, 14090), (26, 14093), (34, 14141), (45, 14291), (50, 14324), (51, 14333), (54, 14396),

Gene: Rachella_27 Start: 14038, Stop: 14682, Start Num: 4
Candidate Starts for Rachella_27:
(Start: 4 @14038 has 41 MA's), (15, 14185), (17, 14209), (20, 14290), (25, 14329), (26, 14332), (34, 14380), (45, 14530), (50, 14563), (51, 14572), (54, 14635),

Gene: Rie18_27 Start: 13380, Stop: 14024, Start Num: 4
Candidate Starts for Rie18_27:
(Start: 4 @13380 has 41 MA's), (15, 13527), (17, 13551), (20, 13632), (25, 13671), (26, 13674), (34, 13722), (45, 13872), (50, 13905), (51, 13914), (54, 13977),

Gene: RikSengupta_28 Start: 14054, Stop: 14647, Start Num: 4
Candidate Starts for RikSengupta_28:
(Start: 4 @14054 has 41 MA's), (22, 14309), (25, 14336), (26, 14339), (31, 14369), (37, 14408), (43, 14456), (45, 14495), (46, 14501), (50, 14528), (51, 14537), (54, 14600),

Gene: Shrew_60 Start: 29033, Stop: 29623, Start Num: 5
Candidate Starts for Shrew_60:
(Start: 5 @29033 has 2 MA's), (18, 29210), (27, 29309), (28, 29312), (29, 29318), (30, 29321), (31, 29330), (54, 29576), (55, 29585),

Gene: Sienna_20 Start: 11749, Stop: 12312, Start Num: 6
Candidate Starts for Sienna_20:
(Start: 6 @11749 has 10 MA's), (10, 11812), (16, 11878), (25, 12004), (27, 12013), (28, 12016), (34, 12055), (47, 12169), (48, 12178), (49, 12187), (52, 12220), (53, 12229),

Gene: SilentWarrior_26 Start: 13249, Stop: 13851, Start Num: 4
Candidate Starts for SilentWarrior_26:
(Start: 4 @13249 has 41 MA's), (15, 13393), (17, 13417), (23, 13522), (25, 13537), (26, 13540), (27, 13546), (45, 13699), (50, 13732), (51, 13741), (54, 13804),

Gene: Snakehole_28 Start: 13338, Stop: 13940, Start Num: 4
Candidate Starts for Snakehole_28:
(Start: 4 @13338 has 41 MA's), (15, 13482), (17, 13506), (23, 13611), (25, 13626), (26, 13629), (27, 13635), (45, 13788), (50, 13821), (51, 13830), (54, 13893),

Gene: Sparcetus_28 Start: 13933, Stop: 14526, Start Num: 4
Candidate Starts for Sparcetus_28:
(Start: 4 @13933 has 41 MA's), (25, 14215), (26, 14218), (31, 14248), (37, 14287), (43, 14335), (45, 14374), (46, 14380), (50, 14407), (51, 14416), (54, 14479),

Gene: Suzy_20 Start: 12976, Stop: 13545, Start Num: 6
Candidate Starts for Suzy_20:
(Start: 6 @12976 has 10 MA's), (8, 13039), (9, 13042), (16, 13111), (25, 13237), (27, 13246), (28, 13249), (34, 13288), (40, 13333), (47, 13402), (48, 13411), (49, 13420), (52, 13453), (53, 13462),

Gene: Tedro_27 Start: 13508, Stop: 14152, Start Num: 4
Candidate Starts for Tedro_27:
(Start: 4 @13508 has 41 MA's), (15, 13655), (17, 13679), (20, 13760), (25, 13799), (26, 13802), (34, 13850), (45, 14000), (50, 14033), (51, 14042), (54, 14105),

Gene: Terapin_20 Start: 11749, Stop: 12312, Start Num: 6
Candidate Starts for Terapin_20:
(Start: 6 @11749 has 10 MA's), (10, 11812), (16, 11878), (25, 12004), (27, 12013), (28, 12016), (34, 12055), (47, 12169), (48, 12178), (49, 12187), (52, 12220), (53, 12229),

Gene: TinyMiny_28 Start: 13952, Stop: 14545, Start Num: 4
Candidate Starts for TinyMiny_28:
(Start: 4 @13952 has 41 MA's), (22, 14207), (25, 14234), (26, 14237), (31, 14267), (37, 14306), (43, 14354), (45, 14393), (46, 14399), (50, 14426), (51, 14435), (54, 14498),

Gene: Tongui_26 Start: 13372, Stop: 14016, Start Num: 4
Candidate Starts for Tongui_26:
(Start: 4 @13372 has 41 MA's), (15, 13519), (17, 13543), (20, 13624), (25, 13663), (26, 13666), (34, 13714), (45, 13864), (50, 13897), (51, 13906), (54, 13969),

Gene: Wollypog_15 Start: 10559, Stop: 11137, Start Num: 6
Candidate Starts for Wollypog_15:
(Start: 6 @10559 has 10 MA's), (14, 10679), (32, 10859), (33, 10862), (36, 10889), (38, 10919), (41, 10940), (46, 10991), (54, 11090),