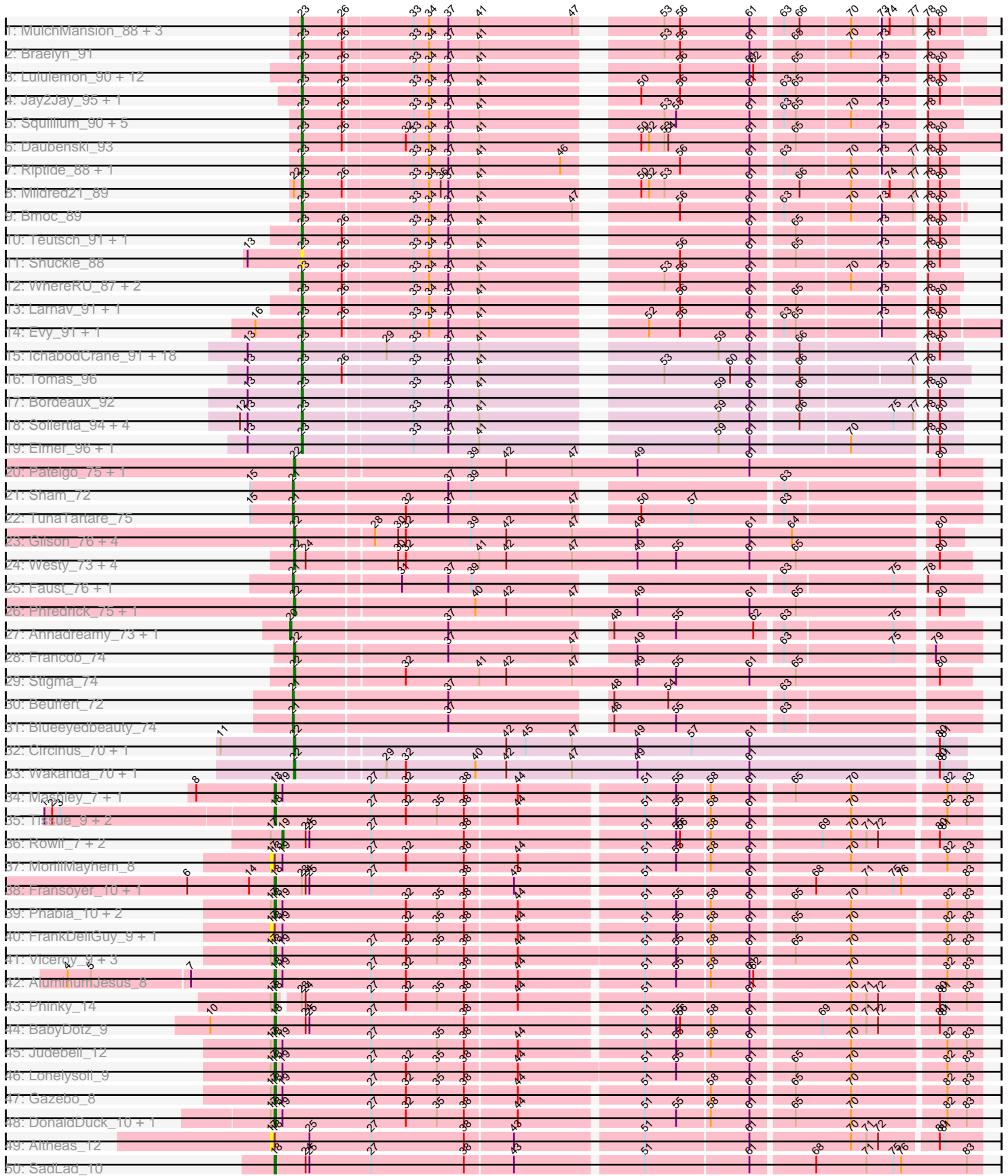
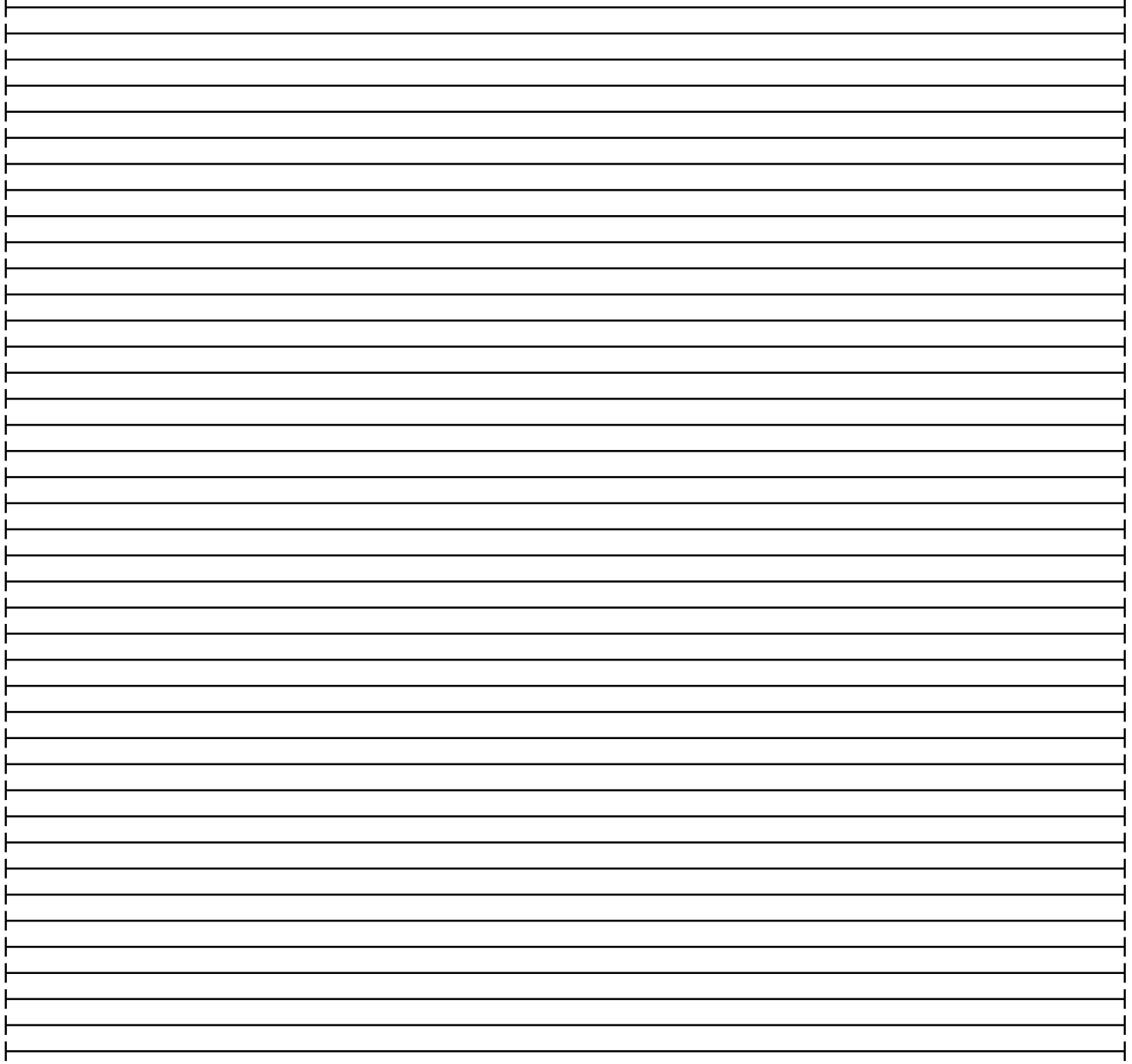
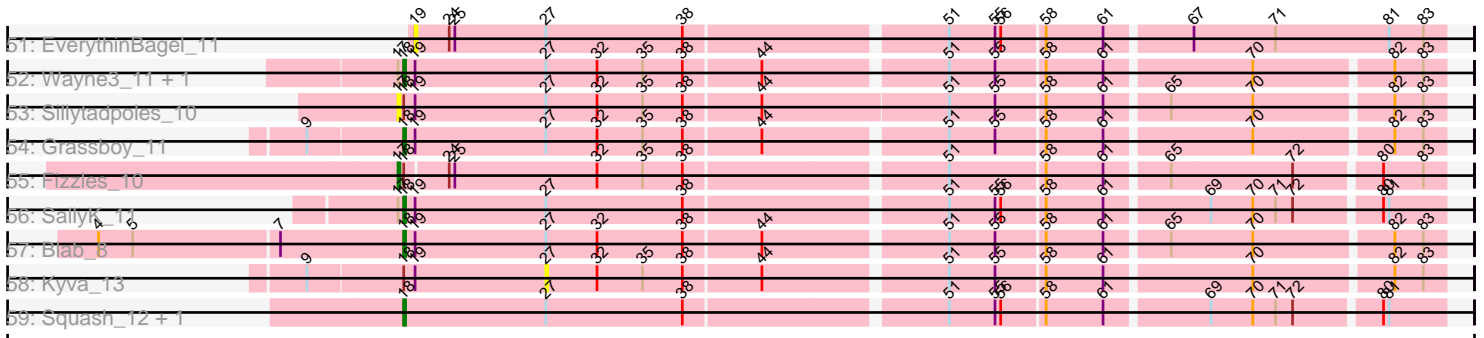


Pham 202756



Pham 202756



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 202756 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202756 has 138 members, 20 are drafts.

Phages represented in each track:

- Track 1 : MulchMansion_88, Marsus_89, LilMartin_88, Angela_88
- Track 2 : Braelyn_91
- Track 3 : Lululemon_90, Cross_91, PacManQ_90, Cursive_89, HangryHippo_91, Pepperwood_91, Tribute_89, Peebs_90, Leo04_92, Sushi23_90, BlueOtter_91, EGole_92, Watermoore_90
- Track 4 : Jay2Jay_95, Warpy_94
- Track 5 : Squillium_90, PinkiePie_89, Bartholomune_89, Liandry_89, Persimmon_89, NootNoot_86
- Track 6 : Daubenski_93
- Track 7 : Riptide_88, Anedea_90
- Track 8 : Mildred21_89
- Track 9 : Bmoc_89
- Track 10 : Teutsch_91, Samisti12_91
- Track 11 : Shuckle_88
- Track 12 : WhereRU_87, Paradiddles_86, Navo_88
- Track 13 : Larnav_91, Scheme_92
- Track 14 : Evy_91, Targaryen_91
- Track 15 : IchabodCrane_91, Spelly_94, Amabiko_94, CeilingFan_96, MindFlayer_91, Starbow_92, Quarant19_93, SaltySpittoon_93, PumpkinSpice_93, Rikishi_96, Wipeout_91, Gibbi_98, Spilled_95, TomSawyer_92, Karimac_93, Jollison_93, Birchlyn_91, JimJam_94, KentuckyRacer_94
- Track 16 : Tomas_96
- Track 17 : Bordeaux_92
- Track 18 : Sollertia_94, Genie2_94, BoomerJR_94, Stanimal_94, Yaboi_94
- Track 19 : Elmer_96, Wofford_93
- Track 20 : Patelgo_75, Moab_75
- Track 21 : Sham_72
- Track 22 : TunaTartare_75
- Track 23 : Gilson_76, Forrest_78, Emma1919_77, MeganTheeKilla_74, Jada_76
- Track 24 : Westy_73, Comrade_75, Karp_73, SparkleGoddess_75, Belfort_77
- Track 25 : Faust_76, SeresaTree_76
- Track 26 : Phredrick_75, Kenrey_77
- Track 27 : Annadreamy_73, Limpid_72
- Track 28 : Francob_74
- Track 29 : Stigma_74
- Track 30 : Beuffert_72
- Track 31 : Blueeyedbeauty_74

- Track 32 : Circinus_70, BillNye_69
- Track 33 : Wakanda_70, Muntaha_71
- Track 34 : Mashley_7, Hyperion_8
- Track 35 : Tissue_9, Teehee_12, Jehoshaphat_12
- Track 36 : Rowlf_7, Statler_12, Zagie_11
- Track 37 : MorillMayhem_8
- Track 38 : Fransoyer_10, RubyRalph_10
- Track 39 : Phabia_10, Namago_10, StrawberryJamm_12
- Track 40 : FrankDeliGuy_9, Zhafia_13
- Track 41 : Viceroy_9, Quammi_8, Rudy_8, Llemily_10
- Track 42 : AluminumJesus_8
- Track 43 : Phinky_14
- Track 44 : BabyDotz_9
- Track 45 : Judebell_12
- Track 46 : Lonelysoil_9
- Track 47 : Gazebo_8
- Track 48 : DonaldDuck_10, Wheelie_9
- Track 49 : Altheas_12
- Track 50 : SadLad_10
- Track 51 : EverythinBagel_11
- Track 52 : Wayne3_11, Casend_11
- Track 53 : Sillytadpoles_10
- Track 54 : Grassboy_11
- Track 55 : Fizzles_10
- Track 56 : SallyK_11
- Track 57 : Blab_8
- Track 58 : Kyva_13
- Track 59 : Squash_12, Nike_11

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

The start number called the most often in the published annotations is 23, it was called in 62 of the 118 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Amabiko_94, Anedea_90, Angela_88, Bartholomune_89, Birchlyn_91, BlueOtter_91, Bmoc_89, BoomerJR_94, Bordeaux_92, Braelyn_91, CeilingFan_96, Cross_91, Cursive_89, Daubenski_93, EGole_92, Elmer_96, Evy_91, Genie2_94, Gibbi_98, HangryHippo_91, IchabodCrane_91, Jay2Jay_95, JimJam_94, Jollison_93, Karimac_93, KentuckyRacer_94, Larnav_91, Leo04_92, Liandry_89, LilMartin_88, Lululemon_90, Marsus_89, Mildred21_89, MindFlayer_91, MulchMansion_88, Navo_88, NootNoot_86, PacManQ_90, Paradiddles_86, Peebs_90, Pepperwood_91, Persimmon_89, PinkiePie_89, PumpkinSpice_93, Quaran19_93, Rikishi_96, Riptide_88, SaltySpittoon_93, Samisti12_91, Scheme_92, Shuckle_88, Sollertia_94, Spelly_94, Spilled_95, Squillium_90, Stanimal_94, Starbow_92, Sushi23_90, Targaryen_91, Teutsch_91, TomSawyer_92, Tomas_96, Tribute_89, Warpy_94, Watermoore_90, WhereRU_87, Wipeout_91, Wofford_93, Yaboi_94,

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

• Fransoyer_10, Phinky_14, RubyRalph_10,

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

- Altheas_12, AluminumJesus_8, Annadreamy_73, BabyDotz_9, Belfort_77, Beuffert_72, BillNye_69, Blab_8, Blueeyedbeauty_74, Casend_11, Circinus_70, Comrade_75, DonaldDuck_10, Emma1919_77, EverythinBagel_11, Faust_76, Fizzles_10, Forrest_78, Francob_74, FrankDeliGuy_9, Gazebo_8, Gilson_76, Grassboy_11, Hyperion_8, Jada_76, Jehoshaphat_12, Judebell_12, Karp_73, Kenrey_77, Kyva_13, Limpid_72, Llemily_10, Lonelysoil_9, Mashley_7, MeganTheeKilla_74, Moab_75, MorillMayhem_8, Muntaha_71, Namago_10, Nike_11, Patelgo_75, Phabia_10, Phredrick_75, Quammi_8, Rowlf_7, Rudy_8, SadLad_10, SallyK_11, SeresaTree_76, Sham_72, Sillytadpoles_10, SparkleGoddess_75, Squash_12, Statler_12, Stigma_74, StrawberryJamm_12, Teehee_12, Tissue_9, TunaTartare_75, Viceroy_9, Wakanda_70, Wayne3_11, Westy_73, Wheelie_9, Zagie_11, Zhafia_13,

Summary by start number:

Start 17:

- Found in 25 of 138 (18.1%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 24.0% of time when present
- Phage (with cluster) where this start called: Altheas_12 (EG), Fizzles_10 (EG), FrankDeliGuy_9 (EG), MorillMayhem_8 (EG), Sillytadpoles_10 (EG), Zhafia_13 (EG),

Start 18:

- Found in 37 of 138 (26.8%) of genes in pham
- Manual Annotations of this start: 27 of 118
- Called 81.1% of time when present
- Phage (with cluster) where this start called: AluminumJesus_8 (EG), BabyDotz_9 (EG), Blab_8 (EG), Casend_11 (EG), DonaldDuck_10 (EG), Fransoyer_10 (EG), Gazebo_8 (EG), Grassboy_11 (EG), Hyperion_8 (EG), Jehoshaphat_12 (EG), Judebell_12 (EG), Llemily_10 (EG), Lonelysoil_9 (EG), Mashley_7 (EG), Namago_10 (EG), Nike_11 (EG), Phabia_10 (EG), Phinky_14 (EG), Quammi_8 (EG), RubyRalph_10 (EG), Rudy_8 (EG), SadLad_10 (EG), SallyK_11 (EG), Squash_12 (EG), StrawberryJamm_12 (EG), Teehee_12 (EG), Tissue_9 (EG), Viceroy_9 (EG), Wayne3_11 (EG), Wheelie_9 (EG),

Start 19:

- Found in 29 of 138 (21.0%) of genes in pham
- Manual Annotations of this start: 2 of 118
- Called 13.8% of time when present
- Phage (with cluster) where this start called: EverythinBagel_11 (EG), Rowlf_7 (EG), Statler_12 (EG), Zagie_11 (EG),

Start 20:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy_73 (BK1), Limpid_72 (BK1),

Start 21:

- Found in 6 of 138 (4.3%) of genes in pham

- Manual Annotations of this start: 5 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beuffert_72 (BK1), Blueeyedbeauty_74 (BK1), Faust_76 (BK1), SeresaTree_76 (BK1), Sham_72 (BK1), TunaTartare_75 (BK1),

Start 22:

- Found in 21 of 138 (15.2%) of genes in pham
- Manual Annotations of this start: 19 of 118
- Called 95.2% of time when present
- Phage (with cluster) where this start called: Belfort_77 (BK1), BillNye_69 (BK2), Circinus_70 (BK2), Comrade_75 (BK1), Emma1919_77 (BK1), Forrest_78 (BK1), Francob_74 (BK1), Gilson_76 (BK1), Jada_76 (BK1), Karp_73 (BK1), Kenrey_77 (BK1), MeganTheeKilla_74 (BK1), Moab_75 (BK1), Muntaha_71 (BK2), Patelgo_75 (BK1), Phredrick_75 (BK1), SparkleGoddess_75 (BK1), Stigma_74 (BK1), Wakanda_70 (BK2), Westy_73 (BK1),

Start 23:

- Found in 72 of 138 (52.2%) of genes in pham
- Manual Annotations of this start: 62 of 118
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Amabiko_94 (BE2), Anedea_90 (BE1), Angela_88 (BE1), Bartholomune_89 (BE1), Birchlyn_91 (BE2), BlueOtter_91 (BE1), Bmoc_89 (BE1), BoomerJR_94 (BE2), Bordeaux_92 (BE2), Braelyn_91 (BE1), CeilingFan_96 (BE2), Cross_91 (BE1), Cursive_89 (BE1), Daubenski_93 (BE1), EGole_92 (BE1), Elmer_96 (BE2), Evy_91 (BE1), Genie2_94 (BE2), Gibbi_98 (BE2), HangryHippo_91 (BE1), IchabodCrane_91 (BE2), Jay2Jay_95 (BE1), JimJam_94 (BE2), Jollison_93 (BE2), Karimac_93 (BE2), KentuckyRacer_94 (BE2), Larnav_91 (BE1), Leo04_92 (BE1), Liandry_89 (BE1), LilMartin_88 (BE1), Lululemon_90 (BE1), Marsus_89 (BE1), Mildred21_89 (BE1), MindFlayer_91 (BE2), MulchMansion_88 (BE1), Navo_88 (BE1), NootNoot_86 (BE1), PacManQ_90 (BE1), Paradiddles_86 (BE1), Peebs_90 (BE1), Pepperwood_91 (BE1), Persimmon_89 (BE1), PinkiePie_89 (BE1), PumpkinSpice_93 (BE2), Quarant19_93 (BE2), Rikishi_96 (BE2), Riptide_88 (BE1), SaltySpittoon_93 (BE2), Samisti12_91 (BE1), Scheme_92 (BE1), Shuckle_88 (BE1), Sollertia_94 (BE2), Spelly_94 (BE2), Spilled_95 (BE2), Squillium_90 (BE1), Stanimal_94 (BE2), Starbow_92 (BE2), Sushi23_90 (BE1), Targaryen_91 (BE1), Teutsch_91 (BE1), TomSawyer_92 (BE2), Tomas_96 (BE2), Tribute_89 (BE1), Warpy_94 (BE1), Watermoore_90 (BE1), WhereRU_87 (BE1), Wipeout_91 (BE2), Wofford_93 (BE2), Yaboi_94 (BE2),

Start 27:

- Found in 35 of 138 (25.4%) of genes in pham
- No Manual Annotations of this start.
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Kyva_13 (EG),

Summary by clusters:

There are 5 clusters represented in this pham: BE2, EG, BE1, BK1, BK2,

Info for manual annotations of cluster BE1:

- Start number 23 was manually annotated 37 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 23 was manually annotated 25 times for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 20 was manually annotated 2 times for cluster BK1.
- Start number 21 was manually annotated 5 times for cluster BK1.
- Start number 22 was manually annotated 15 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 22 was manually annotated 4 times for cluster BK2.

Info for manual annotations of cluster EG:

- Start number 17 was manually annotated 1 time for cluster EG.
- Start number 18 was manually annotated 27 times for cluster EG.
- Start number 19 was manually annotated 2 times for cluster EG.

Gene Information:

Gene: Altheas_12 Start: 4332, Stop: 3808, Start Num: 17

Candidate Starts for Altheas_12:

(Start: 17 @4332 has 1 MA's), (Start: 18 @4329 has 27 MA's), (25, 4302), (27, 4254), (38, 4182), (43, 4146), (51, 4053), (61, 3975), (70, 3903), (71, 3891), (72, 3882), (80, 3840), (81, 3837),

Gene: AluminumJesus_8 Start: 3219, Stop: 2698, Start Num: 18

Candidate Starts for AluminumJesus_8:

(4, 3375), (5, 3357), (7, 3282), (Start: 18 @3219 has 27 MA's), (Start: 19 @3213 has 2 MA's), (27, 3144), (32, 3117), (38, 3072), (44, 3033), (51, 2943), (55, 2919), (58, 2895), (61, 2865), (62, 2862), (70, 2793), (82, 2724), (83, 2709),

Gene: Amabiko_94 Start: 66326, Stop: 66790, Start Num: 23

Candidate Starts for Amabiko_94:

(13, 66284), (Start: 23 @66326 has 62 MA's), (29, 66386), (33, 66407), (37, 66434), (41, 66458), (59, 66620), (61, 66644), (66, 66677), (78, 66764), (80, 66773),

Gene: Anedea_90 Start: 65627, Stop: 66085, Start Num: 23

Candidate Starts for Anedea_90:

(Start: 23 @65627 has 62 MA's), (33, 65708), (34, 65720), (37, 65735), (41, 65759), (46, 65822), (56, 65891), (61, 65945), (63, 65966), (70, 66014), (73, 66035), (77, 66059), (78, 66062), (80, 66071),

Gene: Angela_88 Start: 65099, Stop: 65575, Start Num: 23

Candidate Starts for Angela_88:

(Start: 23 @65099 has 62 MA's), (26, 65129), (33, 65180), (34, 65192), (37, 65207), (41, 65231), (47, 65303), (53, 65351), (56, 65363), (61, 65417), (63, 65438), (66, 65450), (70, 65486), (73, 65507), (74, 65513), (77, 65531), (78, 65534), (80, 65543),

Gene: Annadreamy_73 Start: 56905, Stop: 57396, Start Num: 20

Candidate Starts for Annadreamy_73:

(Start: 20 @56905 has 2 MA's), (37, 57025), (48, 57130), (55, 57178), (62, 57238), (63, 57256), (75, 57337),

Gene: BabyDotz_9 Start: 3868, Stop: 3347, Start Num: 18

Candidate Starts for BabyDotz_9:

(10, 3916), (Start: 18 @3868 has 27 MA's), (24, 3844), (25, 3841), (27, 3793), (38, 3721), (51, 3592), (55, 3568), (56, 3565), (58, 3544), (61, 3514), (69, 3463), (70, 3442), (71, 3430), (72, 3421), (80, 3379), (81, 3376),

Gene: Bartholomune_89 Start: 65526, Stop: 65987, Start Num: 23

Candidate Starts for Bartholomune_89:

(Start: 23 @65526 has 62 MA's), (26, 65556), (33, 65607), (34, 65619), (37, 65634), (41, 65658), (53, 65778), (55, 65787), (61, 65844), (63, 65865), (65, 65874), (70, 65913), (73, 65934), (78, 65961),

Gene: Belfort_77 Start: 58719, Stop: 59228, Start Num: 22

Candidate Starts for Belfort_77:

(Start: 22 @58719 has 19 MA's), (24, 58728), (30, 58794), (32, 58800), (41, 58857), (42, 58878), (47, 58929), (49, 58980), (55, 59010), (61, 59067), (65, 59103), (80, 59205),

Gene: Beuffert_72 Start: 57485, Stop: 57973, Start Num: 21

Candidate Starts for Beuffert_72:

(Start: 21 @57485 has 5 MA's), (37, 57602), (48, 57707), (54, 57749), (63, 57833),

Gene: BillNye_69 Start: 59802, Stop: 60308, Start Num: 22

Candidate Starts for BillNye_69:

(11, 59745), (Start: 22 @59802 has 19 MA's), (42, 59961), (45, 59976), (47, 60012), (49, 60063), (57, 60105), (61, 60150), (80, 60288), (81, 60291),

Gene: Birchlyn_91 Start: 64183, Stop: 64647, Start Num: 23

Candidate Starts for Birchlyn_91:

(13, 64141), (Start: 23 @64183 has 62 MA's), (29, 64243), (33, 64264), (37, 64291), (41, 64315), (59, 64477), (61, 64501), (66, 64534), (78, 64621), (80, 64630),

Gene: Blab_8 Start: 3001, Stop: 2480, Start Num: 18

Candidate Starts for Blab_8:

(4, 3157), (5, 3139), (7, 3064), (Start: 18 @3001 has 27 MA's), (Start: 19 @2995 has 2 MA's), (27, 2926), (32, 2899), (38, 2854), (44, 2815), (51, 2725), (55, 2701), (58, 2677), (61, 2647), (65, 2617), (70, 2575), (82, 2506), (83, 2491),

Gene: BlueOtter_91 Start: 66872, Stop: 67330, Start Num: 23

Candidate Starts for BlueOtter_91:

(Start: 23 @66872 has 62 MA's), (26, 66902), (33, 66953), (34, 66965), (37, 66980), (41, 67004), (56, 67136), (61, 67190), (62, 67193), (65, 67220), (73, 67280), (78, 67307), (80, 67316),

Gene: Blueeyedbeauty_74 Start: 56878, Stop: 57366, Start Num: 21

Candidate Starts for Blueeyedbeauty_74:

(Start: 21 @56878 has 5 MA's), (37, 56995), (48, 57100), (55, 57148), (63, 57226),

Gene: Bmoc_89 Start: 65465, Stop: 65926, Start Num: 23

Candidate Starts for Bmoc_89:

(Start: 23 @65465 has 62 MA's), (33, 65546), (34, 65558), (37, 65573), (41, 65597), (47, 65669), (56, 65729), (61, 65783), (63, 65804), (70, 65852), (73, 65873), (77, 65897), (78, 65900), (80, 65909),

Gene: BoomerJR_94 Start: 66168, Stop: 66632, Start Num: 23

Candidate Starts for BoomerJR_94:

(12, 66120), (13, 66126), (Start: 23 @66168 has 62 MA's), (33, 66249), (37, 66276), (41, 66300), (59, 66462), (61, 66486), (66, 66519), (75, 66588), (77, 66603), (78, 66606), (80, 66615),

Gene: Bordeaux_92 Start: 66455, Stop: 66919, Start Num: 23

Candidate Starts for Bordeaux_92:

(13, 66413), (Start: 23 @66455 has 62 MA's), (33, 66536), (37, 66563), (41, 66587), (59, 66749), (61, 66773), (66, 66806), (78, 66893), (80, 66902),

Gene: Braelyn_91 Start: 66290, Stop: 66751, Start Num: 23

Candidate Starts for Braelyn_91:

(Start: 23 @66290 has 62 MA's), (26, 66320), (33, 66371), (34, 66383), (37, 66398), (41, 66422), (53, 66542), (56, 66554), (61, 66608), (65, 66638), (70, 66677), (73, 66698), (78, 66725),

Gene: Casend_11 Start: 3994, Stop: 3473, Start Num: 18

Candidate Starts for Casend_11:

(Start: 17 @3997 has 1 MA's), (Start: 18 @3994 has 27 MA's), (Start: 19 @3988 has 2 MA's), (27, 3919), (32, 3892), (35, 3868), (38, 3847), (44, 3808), (51, 3718), (55, 3694), (58, 3670), (61, 3640), (70, 3568), (82, 3499), (83, 3484),

Gene: CeilingFan_96 Start: 66215, Stop: 66679, Start Num: 23

Candidate Starts for CeilingFan_96:

(13, 66173), (Start: 23 @66215 has 62 MA's), (29, 66275), (33, 66296), (37, 66323), (41, 66347), (59, 66509), (61, 66533), (66, 66566), (78, 66653), (80, 66662),

Gene: Circinus_70 Start: 59789, Stop: 60295, Start Num: 22

Candidate Starts for Circinus_70:

(11, 59732), (Start: 22 @59789 has 19 MA's), (42, 59948), (45, 59963), (47, 59999), (49, 60050), (57, 60092), (61, 60137), (80, 60275), (81, 60278),

Gene: Comrade_75 Start: 58335, Stop: 58844, Start Num: 22

Candidate Starts for Comrade_75:

(Start: 22 @58335 has 19 MA's), (24, 58344), (30, 58410), (32, 58416), (41, 58473), (42, 58494), (47, 58545), (49, 58596), (55, 58626), (61, 58683), (65, 58719), (80, 58821),

Gene: Cross_91 Start: 66873, Stop: 67331, Start Num: 23

Candidate Starts for Cross_91:

(Start: 23 @66873 has 62 MA's), (26, 66903), (33, 66954), (34, 66966), (37, 66981), (41, 67005), (56, 67137), (61, 67191), (62, 67194), (65, 67221), (73, 67281), (78, 67308), (80, 67317),

Gene: Cursive_89 Start: 66398, Stop: 66856, Start Num: 23

Candidate Starts for Cursive_89:

(Start: 23 @66398 has 62 MA's), (26, 66428), (33, 66479), (34, 66491), (37, 66506), (41, 66530), (56, 66662), (61, 66716), (62, 66719), (65, 66746), (73, 66806), (78, 66833), (80, 66842),

Gene: Daubenski_93 Start: 66583, Stop: 67074, Start Num: 23

Candidate Starts for Daubenski_93:

(Start: 23 @66583 has 62 MA's), (26, 66613), (32, 66658), (33, 66664), (34, 66676), (37, 66691), (41, 66715), (50, 66817), (52, 66823), (53, 66835), (54, 66838), (61, 66901), (65, 66931), (73, 66991), (78, 67018), (80, 67027),

Gene: DonaldDuck_10 Start: 3340, Stop: 2819, Start Num: 18

Candidate Starts for DonaldDuck_10:

(Start: 17 @3343 has 1 MA's), (Start: 18 @3340 has 27 MA's), (Start: 19 @3334 has 2 MA's), (27, 3265), (32, 3238), (35, 3214), (38, 3193), (44, 3154), (51, 3064), (55, 3040), (58, 3016), (61, 2986), (65, 2956), (70, 2914), (82, 2845), (83, 2830),

Gene: EGole_92 Start: 67818, Stop: 68276, Start Num: 23

Candidate Starts for EGole_92:

(Start: 23 @67818 has 62 MA's), (26, 67848), (33, 67899), (34, 67911), (37, 67926), (41, 67950), (56, 68082), (61, 68136), (62, 68139), (65, 68166), (73, 68226), (78, 68253), (80, 68262),

Gene: Elmer_96 Start: 67406, Stop: 67870, Start Num: 23

Candidate Starts for Elmer_96:

(13, 67364), (Start: 23 @67406 has 62 MA's), (33, 67487), (37, 67514), (41, 67538), (59, 67700), (61, 67724), (70, 67793), (78, 67844), (80, 67853),

Gene: Emma1919_77 Start: 57029, Stop: 57532, Start Num: 22

Candidate Starts for Emma1919_77:

(Start: 22 @57029 has 19 MA's), (28, 57086), (30, 57104), (32, 57110), (39, 57161), (42, 57188), (47, 57239), (49, 57290), (61, 57377), (64, 57410), (80, 57515),

Gene: EverythinBagel_11 Start: 4140, Stop: 3619, Start Num: 19

Candidate Starts for EverythinBagel_11:

(Start: 19 @4140 has 2 MA's), (24, 4122), (25, 4119), (27, 4071), (38, 3999), (51, 3870), (55, 3846), (56, 3843), (58, 3822), (61, 3792), (67, 3750), (71, 3708), (81, 3648), (83, 3630),

Gene: Evy_91 Start: 66773, Stop: 67261, Start Num: 23

Candidate Starts for Evy_91:

(16, 66737), (Start: 23 @66773 has 62 MA's), (26, 66803), (33, 66854), (34, 66866), (37, 66881), (41, 66905), (52, 67013), (56, 67037), (61, 67091), (63, 67112), (65, 67121), (73, 67181), (78, 67208), (80, 67217),

Gene: Faust_76 Start: 58466, Stop: 58951, Start Num: 21

Candidate Starts for Faust_76:

(Start: 21 @58466 has 5 MA's), (31, 58544), (37, 58580), (39, 58598), (63, 58811), (75, 58892), (78, 58910),

Gene: Fizzles_10 Start: 3691, Stop: 3170, Start Num: 17

Candidate Starts for Fizzles_10:

(Start: 17 @3691 has 1 MA's), (Start: 18 @3688 has 27 MA's), (24, 3667), (25, 3664), (32, 3589), (35, 3565), (38, 3544), (51, 3415), (58, 3367), (61, 3337), (65, 3307), (72, 3244), (80, 3202), (83, 3181),

Gene: Forrest_78 Start: 58322, Stop: 58825, Start Num: 22

Candidate Starts for Forrest_78:

(Start: 22 @58322 has 19 MA's), (28, 58379), (30, 58397), (32, 58403), (39, 58454), (42, 58481), (47, 58532), (49, 58583), (61, 58670), (64, 58703), (80, 58808),

Gene: Francob_74 Start: 57100, Stop: 57585, Start Num: 22

Candidate Starts for Francob_74:

(Start: 22 @57100 has 19 MA's), (37, 57214), (47, 57310), (49, 57337), (63, 57445), (75, 57526), (79, 57550),

Gene: FrankDeliGuy_9 Start: 3517, Stop: 2993, Start Num: 17

Candidate Starts for FrankDeliGuy_9:

(Start: 17 @3517 has 1 MA's), (Start: 18 @3514 has 27 MA's), (Start: 19 @3508 has 2 MA's), (32, 3412), (35, 3388), (38, 3367), (44, 3328), (51, 3238), (55, 3214), (58, 3190), (61, 3160), (65, 3130), (70, 3088), (82, 3019), (83, 3004),

Gene: Fransoyer_10 Start: 3421, Stop: 2894, Start Num: 18

Candidate Starts for Fransoyer_10:

(6, 3487), (14, 3439), (Start: 18 @3421 has 27 MA's), (Start: 23 @3400 has 62 MA's), (24, 3397), (25, 3394), (27, 3346), (38, 3274), (43, 3238), (51, 3145), (61, 3067), (68, 3022), (71, 2983), (75, 2962), (76, 2956), (83, 2905),

Gene: Gazebo_8 Start: 3535, Stop: 3014, Start Num: 18

Candidate Starts for Gazebo_8:

(Start: 17 @3538 has 1 MA's), (Start: 18 @3535 has 27 MA's), (Start: 19 @3529 has 2 MA's), (27, 3460), (32, 3433), (35, 3409), (38, 3388), (44, 3349), (51, 3259), (58, 3211), (61, 3181), (65, 3151), (70, 3109), (82, 3040), (83, 3025),

Gene: Genie2_94 Start: 66282, Stop: 66746, Start Num: 23

Candidate Starts for Genie2_94:

(12, 66234), (13, 66240), (Start: 23 @66282 has 62 MA's), (33, 66363), (37, 66390), (41, 66414), (59, 66576), (61, 66600), (66, 66633), (75, 66702), (77, 66717), (78, 66720), (80, 66729),

Gene: Gibbi_98 Start: 66438, Stop: 66902, Start Num: 23

Candidate Starts for Gibbi_98:

(13, 66396), (Start: 23 @66438 has 62 MA's), (29, 66498), (33, 66519), (37, 66546), (41, 66570), (59, 66732), (61, 66756), (66, 66789), (78, 66876), (80, 66885),

Gene: Gilson_76 Start: 56991, Stop: 57494, Start Num: 22

Candidate Starts for Gilson_76:

(Start: 22 @56991 has 19 MA's), (28, 57048), (30, 57066), (32, 57072), (39, 57123), (42, 57150), (47, 57201), (49, 57252), (61, 57339), (64, 57372), (80, 57477),

Gene: Grassboy_11 Start: 4028, Stop: 3507, Start Num: 18

Candidate Starts for Grassboy_11:

(9, 4076), (Start: 18 @4028 has 27 MA's), (Start: 19 @4022 has 2 MA's), (27, 3953), (32, 3926), (35, 3902), (38, 3881), (44, 3842), (51, 3752), (55, 3728), (58, 3704), (61, 3674), (70, 3602), (82, 3533), (83, 3518),

Gene: HangryHippo_91 Start: 66872, Stop: 67330, Start Num: 23

Candidate Starts for HangryHippo_91:

(Start: 23 @66872 has 62 MA's), (26, 66902), (33, 66953), (34, 66965), (37, 66980), (41, 67004), (56, 67136), (61, 67190), (62, 67193), (65, 67220), (73, 67280), (78, 67307), (80, 67316),

Gene: Hyperion_8 Start: 3333, Stop: 2812, Start Num: 18

Candidate Starts for Hyperion_8:

(8, 3393), (Start: 18 @3333 has 27 MA's), (Start: 19 @3327 has 2 MA's), (27, 3258), (32, 3231), (38, 3186), (44, 3147), (51, 3057), (55, 3033), (58, 3009), (61, 2979), (65, 2949), (70, 2907), (82, 2838), (83, 2823),

Gene: IchabodCrane_91 Start: 66027, Stop: 66491, Start Num: 23

Candidate Starts for IchabodCrane_91:

(13, 65985), (Start: 23 @66027 has 62 MA's), (29, 66087), (33, 66108), (37, 66135), (41, 66159), (59, 66321), (61, 66345), (66, 66378), (78, 66465), (80, 66474),

Gene: Jada_76 Start: 57504, Stop: 58007, Start Num: 22

Candidate Starts for Jada_76:

(Start: 22 @57504 has 19 MA's), (28, 57561), (30, 57579), (32, 57585), (39, 57636), (42, 57663), (47, 57714), (49, 57765), (61, 57852), (64, 57885), (80, 57990),

Gene: Jay2Jay_95 Start: 67625, Stop: 68113, Start Num: 23

Candidate Starts for Jay2Jay_95:

(Start: 23 @67625 has 62 MA's), (26, 67655), (33, 67706), (34, 67718), (37, 67733), (41, 67757), (50, 67859), (56, 67889), (61, 67943), (63, 67964), (65, 67973), (73, 68033), (78, 68060), (80, 68069),

Gene: Jehoshaphat_12 Start: 4478, Stop: 3957, Start Num: 18

Candidate Starts for Jehoshaphat_12:

(1, 4652), (2, 4646), (3, 4640), (Start: 18 @4478 has 27 MA's), (27, 4403), (32, 4376), (35, 4352), (38, 4331), (44, 4292), (51, 4202), (55, 4178), (58, 4154), (61, 4124), (70, 4052), (82, 3983), (83, 3968),

Gene: JimJam_94 Start: 66401, Stop: 66865, Start Num: 23

Candidate Starts for JimJam_94:

(13, 66359), (Start: 23 @66401 has 62 MA's), (29, 66461), (33, 66482), (37, 66509), (41, 66533), (59, 66695), (61, 66719), (66, 66752), (78, 66839), (80, 66848),

Gene: Jollison_93 Start: 66283, Stop: 66747, Start Num: 23

Candidate Starts for Jollison_93:

(13, 66241), (Start: 23 @66283 has 62 MA's), (29, 66343), (33, 66364), (37, 66391), (41, 66415), (59, 66577), (61, 66601), (66, 66634), (78, 66721), (80, 66730),

Gene: Judebell_12 Start: 4097, Stop: 3576, Start Num: 18

Candidate Starts for Judebell_12:

(Start: 17 @4100 has 1 MA's), (Start: 18 @4097 has 27 MA's), (Start: 19 @4091 has 2 MA's), (27, 4022), (35, 3971), (38, 3950), (44, 3911), (51, 3821), (55, 3797), (58, 3773), (61, 3743), (70, 3671), (82, 3602), (83, 3587),

Gene: Karimac_93 Start: 66432, Stop: 66896, Start Num: 23

Candidate Starts for Karimac_93:

(13, 66390), (Start: 23 @66432 has 62 MA's), (29, 66492), (33, 66513), (37, 66540), (41, 66564), (59, 66726), (61, 66750), (66, 66783), (78, 66870), (80, 66879),

Gene: Karp_73 Start: 57928, Stop: 58434, Start Num: 22

Candidate Starts for Karp_73:

(Start: 22 @57928 has 19 MA's), (24, 57937), (30, 58003), (32, 58009), (41, 58066), (42, 58087), (47, 58138), (49, 58189), (55, 58219), (61, 58276), (65, 58312), (80, 58414),

Gene: Kenrey_77 Start: 57173, Stop: 57676, Start Num: 22

Candidate Starts for Kenrey_77:

(Start: 22 @57173 has 19 MA's), (40, 57308), (42, 57332), (47, 57383), (49, 57434), (61, 57521), (65, 57557), (80, 57659),

Gene: KentuckyRacer_94 Start: 66216, Stop: 66680, Start Num: 23

Candidate Starts for KentuckyRacer_94:

(13, 66174), (Start: 23 @66216 has 62 MA's), (29, 66276), (33, 66297), (37, 66324), (41, 66348), (59, 66510), (61, 66534), (66, 66567), (78, 66654), (80, 66663),

Gene: Kyva_13 Start: 3988, Stop: 3542, Start Num: 27

Candidate Starts for Kyva_13:

(9, 4111), (Start: 18 @4063 has 27 MA's), (Start: 19 @4057 has 2 MA's), (27, 3988), (32, 3961), (35, 3937), (38, 3916), (44, 3877), (51, 3787), (55, 3763), (58, 3739), (61, 3709), (70, 3637), (82, 3568), (83, 3553),

Gene: Larnav_91 Start: 66857, Stop: 67315, Start Num: 23

Candidate Starts for Larnav_91:

(Start: 23 @66857 has 62 MA's), (26, 66887), (33, 66938), (34, 66950), (37, 66965), (41, 66989), (56, 67121), (61, 67175), (65, 67205), (73, 67265), (78, 67292), (80, 67301),

Gene: Leo04_92 Start: 67372, Stop: 67830, Start Num: 23

Candidate Starts for Leo04_92:

(Start: 23 @67372 has 62 MA's), (26, 67402), (33, 67453), (34, 67465), (37, 67480), (41, 67504), (56, 67636), (61, 67690), (62, 67693), (65, 67720), (73, 67780), (78, 67807), (80, 67816),

Gene: Liandry_89 Start: 66275, Stop: 66736, Start Num: 23

Candidate Starts for Liandry_89:

(Start: 23 @66275 has 62 MA's), (26, 66305), (33, 66356), (34, 66368), (37, 66383), (41, 66407), (53, 66527), (55, 66536), (61, 66593), (63, 66614), (65, 66623), (70, 66662), (73, 66683), (78, 66710),

Gene: LilMartin_88 Start: 65047, Stop: 65523, Start Num: 23

Candidate Starts for LilMartin_88:

(Start: 23 @65047 has 62 MA's), (26, 65077), (33, 65128), (34, 65140), (37, 65155), (41, 65179), (47, 65251), (53, 65299), (56, 65311), (61, 65365), (63, 65386), (66, 65398), (70, 65434), (73, 65455), (74, 65461), (77, 65479), (78, 65482), (80, 65491),

Gene: Limpid_72 Start: 56904, Stop: 57395, Start Num: 20

Candidate Starts for Limpid_72:

(Start: 20 @56904 has 2 MA's), (37, 57024), (48, 57129), (55, 57177), (62, 57237), (63, 57255), (75, 57336),

Gene: Llemily_10 Start: 3347, Stop: 2820, Start Num: 18

Candidate Starts for Llemily_10:

(Start: 17 @3350 has 1 MA's), (Start: 18 @3347 has 27 MA's), (Start: 19 @3341 has 2 MA's), (27, 3272), (32, 3245), (35, 3221), (38, 3200), (44, 3161), (51, 3065), (55, 3041), (58, 3017), (61, 2987), (65, 2957), (70, 2915), (82, 2846), (83, 2831),

Gene: Lonelysoil_9 Start: 3592, Stop: 3065, Start Num: 18

Candidate Starts for Lonelysoil_9:

(Start: 17 @3595 has 1 MA's), (Start: 18 @3592 has 27 MA's), (Start: 19 @3586 has 2 MA's), (27, 3517), (32, 3490), (35, 3466), (38, 3445), (44, 3406), (51, 3310), (55, 3286), (61, 3232), (65, 3202), (70, 3160), (82, 3091), (83, 3076),

Gene: Lululemon_90 Start: 66253, Stop: 66711, Start Num: 23

Candidate Starts for Lululemon_90:

(Start: 23 @66253 has 62 MA's), (26, 66283), (33, 66334), (34, 66346), (37, 66361), (41, 66385), (56, 66517), (61, 66571), (62, 66574), (65, 66601), (73, 66661), (78, 66688), (80, 66697),

Gene: Marsus_89 Start: 65296, Stop: 65772, Start Num: 23

Candidate Starts for Marsus_89:

(Start: 23 @65296 has 62 MA's), (26, 65326), (33, 65377), (34, 65389), (37, 65404), (41, 65428), (47, 65500), (53, 65548), (56, 65560), (61, 65614), (63, 65635), (66, 65647), (70, 65683), (73, 65704), (74, 65710), (77, 65728), (78, 65731), (80, 65740),

Gene: Mashley_7 Start: 3150, Stop: 2629, Start Num: 18

Candidate Starts for Mashley_7:

(8, 3210), (Start: 18 @3150 has 27 MA's), (Start: 19 @3144 has 2 MA's), (27, 3075), (32, 3048), (38, 3003), (44, 2964), (51, 2874), (55, 2850), (58, 2826), (61, 2796), (65, 2766), (70, 2724), (82, 2655), (83,

2640),

Gene: MeganTheeKilla_74 Start: 56352, Stop: 56855, Start Num: 22

Candidate Starts for MeganTheeKilla_74:

(Start: 22 @56352 has 19 MA's), (28, 56409), (30, 56427), (32, 56433), (39, 56484), (42, 56511), (47, 56562), (49, 56613), (61, 56700), (64, 56733), (80, 56838),

Gene: Mildred21_89 Start: 65270, Stop: 65731, Start Num: 23

Candidate Starts for Mildred21_89:

(Start: 22 @65264 has 19 MA's), (Start: 23 @65270 has 62 MA's), (26, 65300), (33, 65351), (34, 65363), (36, 65372), (37, 65378), (41, 65402), (50, 65504), (52, 65510), (53, 65522), (61, 65588), (66, 65621), (70, 65660), (74, 65687), (77, 65705), (78, 65708), (80, 65717),

Gene: MindFlayer_91 Start: 65934, Stop: 66398, Start Num: 23

Candidate Starts for MindFlayer_91:

(13, 65892), (Start: 23 @65934 has 62 MA's), (29, 65994), (33, 66015), (37, 66042), (41, 66066), (59, 66228), (61, 66252), (66, 66285), (78, 66372), (80, 66381),

Gene: Moab_75 Start: 58221, Stop: 58739, Start Num: 22

Candidate Starts for Moab_75:

(Start: 22 @58221 has 19 MA's), (39, 58353), (42, 58380), (47, 58431), (49, 58482), (61, 58569), (80, 58707),

Gene: MorillMayhem_8 Start: 3392, Stop: 2868, Start Num: 17

Candidate Starts for MorillMayhem_8:

(Start: 17 @3392 has 1 MA's), (Start: 18 @3389 has 27 MA's), (Start: 19 @3383 has 2 MA's), (27, 3314), (32, 3287), (38, 3242), (44, 3203), (51, 3113), (55, 3089), (58, 3065), (61, 3035), (70, 2963), (82, 2894), (83, 2879),

Gene: MulchMansion_88 Start: 65047, Stop: 65523, Start Num: 23

Candidate Starts for MulchMansion_88:

(Start: 23 @65047 has 62 MA's), (26, 65077), (33, 65128), (34, 65140), (37, 65155), (41, 65179), (47, 65251), (53, 65299), (56, 65311), (61, 65365), (63, 65386), (66, 65398), (70, 65434), (73, 65455), (74, 65461), (77, 65479), (78, 65482), (80, 65491),

Gene: Muntaha_71 Start: 58138, Stop: 58644, Start Num: 22

Candidate Starts for Muntaha_71:

(Start: 22 @58138 has 19 MA's), (29, 58204), (32, 58219), (40, 58273), (42, 58297), (47, 58348), (49, 58399), (61, 58486), (80, 58624), (81, 58627),

Gene: Namago_10 Start: 3404, Stop: 2883, Start Num: 18

Candidate Starts for Namago_10:

(Start: 17 @3407 has 1 MA's), (Start: 18 @3404 has 27 MA's), (Start: 19 @3398 has 2 MA's), (32, 3302), (35, 3278), (38, 3257), (44, 3218), (51, 3128), (55, 3104), (58, 3080), (61, 3050), (65, 3020), (70, 2978), (82, 2909), (83, 2894),

Gene: Navo_88 Start: 66194, Stop: 66655, Start Num: 23

Candidate Starts for Navo_88:

(Start: 23 @66194 has 62 MA's), (26, 66224), (33, 66275), (34, 66287), (37, 66302), (41, 66326), (53, 66446), (56, 66458), (61, 66512), (70, 66581), (73, 66602), (78, 66629),

Gene: Nike_11 Start: 3917, Stop: 3396, Start Num: 18

Candidate Starts for Nike_11:

(Start: 18 @3917 has 27 MA's), (27, 3842), (38, 3770), (51, 3641), (55, 3617), (56, 3614), (58, 3593), (61, 3563), (69, 3512), (70, 3491), (71, 3479), (72, 3470), (80, 3428), (81, 3425),

Gene: NootNoot_86 Start: 65189, Stop: 65650, Start Num: 23

Candidate Starts for NootNoot_86:

(Start: 23 @65189 has 62 MA's), (26, 65219), (33, 65270), (34, 65282), (37, 65297), (41, 65321), (53, 65441), (55, 65450), (61, 65507), (63, 65528), (65, 65537), (70, 65576), (73, 65597), (78, 65624),

Gene: PacManQ_90 Start: 66253, Stop: 66711, Start Num: 23

Candidate Starts for PacManQ_90:

(Start: 23 @66253 has 62 MA's), (26, 66283), (33, 66334), (34, 66346), (37, 66361), (41, 66385), (56, 66517), (61, 66571), (62, 66574), (65, 66601), (73, 66661), (78, 66688), (80, 66697),

Gene: Paradiddles_86 Start: 65453, Stop: 65914, Start Num: 23

Candidate Starts for Paradiddles_86:

(Start: 23 @65453 has 62 MA's), (26, 65483), (33, 65534), (34, 65546), (37, 65561), (41, 65585), (53, 65705), (56, 65717), (61, 65771), (70, 65840), (73, 65861), (78, 65888),

Gene: Patelgo_75 Start: 58384, Stop: 58902, Start Num: 22

Candidate Starts for Patelgo_75:

(Start: 22 @58384 has 19 MA's), (39, 58516), (42, 58543), (47, 58594), (49, 58645), (61, 58732), (80, 58870),

Gene: Peebs_90 Start: 66607, Stop: 67065, Start Num: 23

Candidate Starts for Peebs_90:

(Start: 23 @66607 has 62 MA's), (26, 66637), (33, 66688), (34, 66700), (37, 66715), (41, 66739), (56, 66871), (61, 66925), (62, 66928), (65, 66955), (73, 67015), (78, 67042), (80, 67051),

Gene: Pepperwood_91 Start: 66740, Stop: 67198, Start Num: 23

Candidate Starts for Pepperwood_91:

(Start: 23 @66740 has 62 MA's), (26, 66770), (33, 66821), (34, 66833), (37, 66848), (41, 66872), (56, 67004), (61, 67058), (62, 67061), (65, 67088), (73, 67148), (78, 67175), (80, 67184),

Gene: Persimmon_89 Start: 65122, Stop: 65583, Start Num: 23

Candidate Starts for Persimmon_89:

(Start: 23 @65122 has 62 MA's), (26, 65152), (33, 65203), (34, 65215), (37, 65230), (41, 65254), (53, 65374), (55, 65383), (61, 65440), (63, 65461), (65, 65470), (70, 65509), (73, 65530), (78, 65557),

Gene: Phabia_10 Start: 3762, Stop: 3241, Start Num: 18

Candidate Starts for Phabia_10:

(Start: 17 @3765 has 1 MA's), (Start: 18 @3762 has 27 MA's), (Start: 19 @3756 has 2 MA's), (32, 3660), (35, 3636), (38, 3615), (44, 3576), (51, 3486), (55, 3462), (58, 3438), (61, 3408), (65, 3378), (70, 3336), (82, 3267), (83, 3252),

Gene: Phinky_14 Start: 4031, Stop: 3516, Start Num: 18

Candidate Starts for Phinky_14:

(Start: 17 @4034 has 1 MA's), (Start: 18 @4031 has 27 MA's), (Start: 23 @4016 has 62 MA's), (24, 4013), (27, 3962), (32, 3935), (35, 3911), (38, 3890), (44, 3851), (51, 3761), (61, 3683), (70, 3611), (71, 3599), (72, 3590), (80, 3548), (81, 3545), (83, 3527),

Gene: Phredrick_75 Start: 56253, Stop: 56756, Start Num: 22

Candidate Starts for Phredrick_75:

(Start: 22 @56253 has 19 MA's), (40, 56388), (42, 56412), (47, 56463), (49, 56514), (61, 56601), (65, 56637), (80, 56739),

Gene: PinkiePie_89 Start: 66275, Stop: 66736, Start Num: 23

Candidate Starts for PinkiePie_89:

(Start: 23 @66275 has 62 MA's), (26, 66305), (33, 66356), (34, 66368), (37, 66383), (41, 66407), (53, 66527), (55, 66536), (61, 66593), (63, 66614), (65, 66623), (70, 66662), (73, 66683), (78, 66710),

Gene: PumpkinSpice_93 Start: 66326, Stop: 66790, Start Num: 23

Candidate Starts for PumpkinSpice_93:

(13, 66284), (Start: 23 @66326 has 62 MA's), (29, 66386), (33, 66407), (37, 66434), (41, 66458), (59, 66620), (61, 66644), (66, 66677), (78, 66764), (80, 66773),

Gene: Quammi_8 Start: 3336, Stop: 2809, Start Num: 18

Candidate Starts for Quammi_8:

(Start: 17 @3339 has 1 MA's), (Start: 18 @3336 has 27 MA's), (Start: 19 @3330 has 2 MA's), (27, 3261), (32, 3234), (35, 3210), (38, 3189), (44, 3150), (51, 3054), (55, 3030), (58, 3006), (61, 2976), (65, 2946), (70, 2904), (82, 2835), (83, 2820),

Gene: Quaran19_93 Start: 66317, Stop: 66781, Start Num: 23

Candidate Starts for Quaran19_93:

(13, 66275), (Start: 23 @66317 has 62 MA's), (29, 66377), (33, 66398), (37, 66425), (41, 66449), (59, 66611), (61, 66635), (66, 66668), (78, 66755), (80, 66764),

Gene: Rikishi_96 Start: 66232, Stop: 66696, Start Num: 23

Candidate Starts for Rikishi_96:

(13, 66190), (Start: 23 @66232 has 62 MA's), (29, 66292), (33, 66313), (37, 66340), (41, 66364), (59, 66526), (61, 66550), (66, 66583), (78, 66670), (80, 66679),

Gene: Riptide_88 Start: 64844, Stop: 65302, Start Num: 23

Candidate Starts for Riptide_88:

(Start: 23 @64844 has 62 MA's), (33, 64925), (34, 64937), (37, 64952), (41, 64976), (46, 65039), (56, 65108), (61, 65162), (63, 65183), (70, 65231), (73, 65252), (77, 65276), (78, 65279), (80, 65288),

Gene: Rowlf_7 Start: 3344, Stop: 2829, Start Num: 19

Candidate Starts for Rowlf_7:

(Start: 17 @3353 has 1 MA's), (Start: 19 @3344 has 2 MA's), (24, 3326), (25, 3323), (27, 3275), (38, 3203), (51, 3074), (55, 3050), (56, 3047), (58, 3026), (61, 2996), (69, 2945), (70, 2924), (71, 2912), (72, 2903), (80, 2861), (81, 2858),

Gene: RubyRalph_10 Start: 3355, Stop: 2828, Start Num: 18

Candidate Starts for RubyRalph_10:

(6, 3421), (14, 3373), (Start: 18 @3355 has 27 MA's), (Start: 23 @3334 has 62 MA's), (24, 3331), (25, 3328), (27, 3280), (38, 3208), (43, 3172), (51, 3079), (61, 3001), (68, 2956), (71, 2917), (75, 2896), (76, 2890), (83, 2839),

Gene: Rudy_8 Start: 3336, Stop: 2809, Start Num: 18

Candidate Starts for Rudy_8:

(Start: 17 @3339 has 1 MA's), (Start: 18 @3336 has 27 MA's), (Start: 19 @3330 has 2 MA's), (27, 3261), (32, 3234), (35, 3210), (38, 3189), (44, 3150), (51, 3054), (55, 3030), (58, 3006), (61, 2976), (65, 2946), (70, 2904), (82, 2835), (83, 2820),

Gene: SadLad_10 Start: 3569, Stop: 3042, Start Num: 18

Candidate Starts for SadLad_10:

(Start: 18 @3569 has 27 MA's), (24, 3545), (25, 3542), (27, 3494), (38, 3422), (43, 3386), (51, 3293), (61, 3215), (68, 3170), (71, 3131), (75, 3110), (76, 3104), (83, 3053),

Gene: SallyK_11 Start: 4497, Stop: 3976, Start Num: 18

Candidate Starts for SallyK_11:

(Start: 17 @4500 has 1 MA's), (Start: 18 @4497 has 27 MA's), (Start: 19 @4491 has 2 MA's), (27, 4422), (38, 4350), (51, 4221), (55, 4197), (56, 4194), (58, 4173), (61, 4143), (69, 4092), (70, 4071), (71, 4059), (72, 4050), (80, 4008), (81, 4005),

Gene: SaltySpittoon_93 Start: 66326, Stop: 66790, Start Num: 23

Candidate Starts for SaltySpittoon_93:

(13, 66284), (Start: 23 @66326 has 62 MA's), (29, 66386), (33, 66407), (37, 66434), (41, 66458), (59, 66620), (61, 66644), (66, 66677), (78, 66764), (80, 66773),

Gene: Samisti12_91 Start: 68049, Stop: 68507, Start Num: 23

Candidate Starts for Samisti12_91:

(Start: 23 @68049 has 62 MA's), (26, 68079), (33, 68130), (34, 68142), (37, 68157), (41, 68181), (61, 68367), (65, 68397), (73, 68457), (78, 68484), (80, 68493),

Gene: Scheme_92 Start: 67454, Stop: 67912, Start Num: 23

Candidate Starts for Scheme_92:

(Start: 23 @67454 has 62 MA's), (26, 67484), (33, 67535), (34, 67547), (37, 67562), (41, 67586), (56, 67718), (61, 67772), (65, 67802), (73, 67862), (78, 67889), (80, 67898),

Gene: SeresaTree_76 Start: 57856, Stop: 58341, Start Num: 21

Candidate Starts for SeresaTree_76:

(Start: 21 @57856 has 5 MA's), (31, 57934), (37, 57970), (39, 57988), (63, 58201), (75, 58282), (78, 58300),

Gene: Sham_72 Start: 58531, Stop: 59019, Start Num: 21

Candidate Starts for Sham_72:

(15, 58498), (Start: 21 @58531 has 5 MA's), (37, 58648), (39, 58666), (63, 58879),

Gene: Shuckle_88 Start: 67062, Stop: 67520, Start Num: 23

Candidate Starts for Shuckle_88:

(13, 67020), (Start: 23 @67062 has 62 MA's), (26, 67092), (33, 67143), (34, 67155), (37, 67170), (41, 67194), (56, 67326), (61, 67380), (65, 67410), (73, 67470), (78, 67497), (80, 67506),

Gene: Sillytadpoles_10 Start: 3337, Stop: 2807, Start Num: 17

Candidate Starts for Sillytadpoles_10:

(Start: 17 @3337 has 1 MA's), (Start: 18 @3334 has 27 MA's), (Start: 19 @3328 has 2 MA's), (27, 3259), (32, 3232), (35, 3208), (38, 3187), (44, 3148), (51, 3052), (55, 3028), (58, 3004), (61, 2974), (65, 2944), (70, 2902), (82, 2833), (83, 2818),

Gene: Sollertia_94 Start: 66282, Stop: 66746, Start Num: 23

Candidate Starts for Sollertia_94:

(12, 66234), (13, 66240), (Start: 23 @66282 has 62 MA's), (33, 66363), (37, 66390), (41, 66414), (59, 66576), (61, 66600), (66, 66633), (75, 66702), (77, 66717), (78, 66720), (80, 66729),

Gene: SparkleGoddess_75 Start: 58336, Stop: 58845, Start Num: 22

Candidate Starts for SparkleGoddess_75:

(Start: 22 @58336 has 19 MA's), (24, 58345), (30, 58411), (32, 58417), (41, 58474), (42, 58495), (47, 58546), (49, 58597), (55, 58627), (61, 58684), (65, 58720), (80, 58822),

Gene: Spelly_94 Start: 66281, Stop: 66745, Start Num: 23

Candidate Starts for Spelly_94:

(13, 66239), (Start: 23 @66281 has 62 MA's), (29, 66341), (33, 66362), (37, 66389), (41, 66413), (59, 66575), (61, 66599), (66, 66632), (78, 66719), (80, 66728),

Gene: Spilled_95 Start: 66398, Stop: 66862, Start Num: 23

Candidate Starts for Spilled_95:

(13, 66356), (Start: 23 @66398 has 62 MA's), (29, 66458), (33, 66479), (37, 66506), (41, 66530), (59, 66692), (61, 66716), (66, 66749), (78, 66836), (80, 66845),

Gene: Squash_12 Start: 3972, Stop: 3451, Start Num: 18

Candidate Starts for Squash_12:

(Start: 18 @3972 has 27 MA's), (27, 3897), (38, 3825), (51, 3696), (55, 3672), (56, 3669), (58, 3648), (61, 3618), (69, 3567), (70, 3546), (71, 3534), (72, 3525), (80, 3483), (81, 3480),

Gene: Squillium_90 Start: 66276, Stop: 66737, Start Num: 23

Candidate Starts for Squillium_90:

(Start: 23 @66276 has 62 MA's), (26, 66306), (33, 66357), (34, 66369), (37, 66384), (41, 66408), (53, 66528), (55, 66537), (61, 66594), (63, 66615), (65, 66624), (70, 66663), (73, 66684), (78, 66711),

Gene: Stanimal_94 Start: 66171, Stop: 66635, Start Num: 23

Candidate Starts for Stanimal_94:

(12, 66123), (13, 66129), (Start: 23 @66171 has 62 MA's), (33, 66252), (37, 66279), (41, 66303), (59, 66465), (61, 66489), (66, 66522), (75, 66591), (77, 66606), (78, 66609), (80, 66618),

Gene: Starbow_92 Start: 66302, Stop: 66766, Start Num: 23

Candidate Starts for Starbow_92:

(13, 66260), (Start: 23 @66302 has 62 MA's), (29, 66362), (33, 66383), (37, 66410), (41, 66434), (59, 66596), (61, 66620), (66, 66653), (78, 66740), (80, 66749),

Gene: Statler_12 Start: 4112, Stop: 3597, Start Num: 19

Candidate Starts for Statler_12:

(Start: 17 @4121 has 1 MA's), (Start: 19 @4112 has 2 MA's), (24, 4094), (25, 4091), (27, 4043), (38, 3971), (51, 3842), (55, 3818), (56, 3815), (58, 3794), (61, 3764), (69, 3713), (70, 3692), (71, 3680), (72, 3671), (80, 3629), (81, 3626),

Gene: Stigma_74 Start: 58344, Stop: 58853, Start Num: 22

Candidate Starts for Stigma_74:

(Start: 22 @58344 has 19 MA's), (32, 58425), (41, 58482), (42, 58503), (47, 58554), (49, 58605), (55, 58635), (61, 58692), (65, 58728), (80, 58830),

Gene: StrawberryJamm_12 Start: 3639, Stop: 3118, Start Num: 18

Candidate Starts for StrawberryJamm_12:

(Start: 17 @3642 has 1 MA's), (Start: 18 @3639 has 27 MA's), (Start: 19 @3633 has 2 MA's), (32, 3537), (35, 3513), (38, 3492), (44, 3453), (51, 3363), (55, 3339), (58, 3315), (61, 3285), (65, 3255), (70, 3213), (82, 3144), (83, 3129),

Gene: Sushi23_90 Start: 66965, Stop: 67423, Start Num: 23

Candidate Starts for Sushi23_90:

(Start: 23 @66965 has 62 MA's), (26, 66995), (33, 67046), (34, 67058), (37, 67073), (41, 67097), (56, 67229), (61, 67283), (62, 67286), (65, 67313), (73, 67373), (78, 67400), (80, 67409),

Gene: Targaryen_91 Start: 67675, Stop: 68163, Start Num: 23

Candidate Starts for Targaryen_91:

(16, 67639), (Start: 23 @67675 has 62 MA's), (26, 67705), (33, 67756), (34, 67768), (37, 67783), (41, 67807), (52, 67915), (56, 67939), (61, 67993), (63, 68014), (65, 68023), (73, 68083), (78, 68110), (80, 68119),

Gene: Teehee_12 Start: 4478, Stop: 3957, Start Num: 18

Candidate Starts for Teehee_12:

(1, 4652), (2, 4646), (3, 4640), (Start: 18 @4478 has 27 MA's), (27, 4403), (32, 4376), (35, 4352), (38, 4331), (44, 4292), (51, 4202), (55, 4178), (58, 4154), (61, 4124), (70, 4052), (82, 3983), (83, 3968),

Gene: Teutsch_91 Start: 67228, Stop: 67686, Start Num: 23

Candidate Starts for Teutsch_91:

(Start: 23 @67228 has 62 MA's), (26, 67258), (33, 67309), (34, 67321), (37, 67336), (41, 67360), (61, 67546), (65, 67576), (73, 67636), (78, 67663), (80, 67672),

Gene: Tissue_9 Start: 3609, Stop: 3088, Start Num: 18

Candidate Starts for Tissue_9:

(1, 3783), (2, 3777), (3, 3771), (Start: 18 @3609 has 27 MA's), (27, 3534), (32, 3507), (35, 3483), (38, 3462), (44, 3423), (51, 3333), (55, 3309), (58, 3285), (61, 3255), (70, 3183), (82, 3114), (83, 3099),

Gene: TomSawyer_92 Start: 65917, Stop: 66381, Start Num: 23

Candidate Starts for TomSawyer_92:

(13, 65875), (Start: 23 @65917 has 62 MA's), (29, 65977), (33, 65998), (37, 66025), (41, 66049), (59, 66211), (61, 66235), (66, 66268), (78, 66355), (80, 66364),

Gene: Tomas_96 Start: 69082, Stop: 69549, Start Num: 23

Candidate Starts for Tomas_96:

(13, 69040), (Start: 23 @69082 has 62 MA's), (26, 69112), (33, 69163), (37, 69190), (41, 69214), (53, 69334), (60, 69385), (61, 69400), (66, 69433), (77, 69514), (78, 69517),

Gene: Tribute_89 Start: 66434, Stop: 66892, Start Num: 23

Candidate Starts for Tribute_89:

(Start: 23 @66434 has 62 MA's), (26, 66464), (33, 66515), (34, 66527), (37, 66542), (41, 66566), (56, 66698), (61, 66752), (62, 66755), (65, 66782), (73, 66842), (78, 66869), (80, 66878),

Gene: TunaTartare_75 Start: 59031, Stop: 59519, Start Num: 21

Candidate Starts for TunaTartare_75:

(15, 58998), (Start: 21 @59031 has 5 MA's), (32, 59115), (37, 59148), (47, 59244), (50, 59274), (57, 59313), (63, 59379),

Gene: Viceroy_9 Start: 3336, Stop: 2809, Start Num: 18

Candidate Starts for Viceroy_9:

(Start: 17 @3339 has 1 MA's), (Start: 18 @3336 has 27 MA's), (Start: 19 @3330 has 2 MA's), (27, 3261), (32, 3234), (35, 3210), (38, 3189), (44, 3150), (51, 3054), (55, 3030), (58, 3006), (61, 2976), (65, 2946), (70, 2904), (82, 2835), (83, 2820),

Gene: Wakanda_70 Start: 58075, Stop: 58581, Start Num: 22

Candidate Starts for Wakanda_70:

(Start: 22 @58075 has 19 MA's), (29, 58141), (32, 58156), (40, 58210), (42, 58234), (47, 58285), (49, 58336), (61, 58423), (80, 58561), (81, 58564),

Gene: Warpy_94 Start: 67138, Stop: 67626, Start Num: 23

Candidate Starts for Warpy_94:

(Start: 23 @67138 has 62 MA's), (26, 67168), (33, 67219), (34, 67231), (37, 67246), (41, 67270), (50, 67372), (56, 67402), (61, 67456), (63, 67477), (65, 67486), (73, 67546), (78, 67573), (80, 67582),

Gene: Watermoore_90 Start: 67444, Stop: 67902, Start Num: 23

Candidate Starts for Watermoore_90:

(Start: 23 @67444 has 62 MA's), (26, 67474), (33, 67525), (34, 67537), (37, 67552), (41, 67576), (56, 67708), (61, 67762), (62, 67765), (65, 67792), (73, 67852), (78, 67879), (80, 67888),

Gene: Wayne3_11 Start: 3989, Stop: 3468, Start Num: 18

Candidate Starts for Wayne3_11:

(Start: 17 @3992 has 1 MA's), (Start: 18 @3989 has 27 MA's), (Start: 19 @3983 has 2 MA's), (27, 3914), (32, 3887), (35, 3863), (38, 3842), (44, 3803), (51, 3713), (55, 3689), (58, 3665), (61, 3635), (70, 3563), (82, 3494), (83, 3479),

Gene: Westy_73 Start: 58336, Stop: 58845, Start Num: 22

Candidate Starts for Westy_73:

(Start: 22 @58336 has 19 MA's), (24, 58345), (30, 58411), (32, 58417), (41, 58474), (42, 58495), (47, 58546), (49, 58597), (55, 58627), (61, 58684), (65, 58720), (80, 58822),

Gene: Wheelie_9 Start: 3340, Stop: 2819, Start Num: 18

Candidate Starts for Wheelie_9:

(Start: 17 @3343 has 1 MA's), (Start: 18 @3340 has 27 MA's), (Start: 19 @3334 has 2 MA's), (27, 3265), (32, 3238), (35, 3214), (38, 3193), (44, 3154), (51, 3064), (55, 3040), (58, 3016), (61, 2986), (65, 2956), (70, 2914), (82, 2845), (83, 2830),

Gene: WhereRU_87 Start: 65710, Stop: 66171, Start Num: 23

Candidate Starts for WhereRU_87:

(Start: 23 @65710 has 62 MA's), (26, 65740), (33, 65791), (34, 65803), (37, 65818), (41, 65842), (53, 65962), (56, 65974), (61, 66028), (70, 66097), (73, 66118), (78, 66145),

Gene: Wipeout_91 Start: 66668, Stop: 67132, Start Num: 23

Candidate Starts for Wipeout_91:

(13, 66626), (Start: 23 @66668 has 62 MA's), (29, 66728), (33, 66749), (37, 66776), (41, 66800), (59, 66962), (61, 66986), (66, 67019), (78, 67106), (80, 67115),

Gene: Wofford_93 Start: 67369, Stop: 67833, Start Num: 23

Candidate Starts for Wofford_93:

(13, 67327), (Start: 23 @67369 has 62 MA's), (33, 67450), (37, 67477), (41, 67501), (59, 67663), (61, 67687), (70, 67756), (78, 67807), (80, 67816),

Gene: Yaboi_94 Start: 66259, Stop: 66723, Start Num: 23

Candidate Starts for Yaboi_94:

(12, 66211), (13, 66217), (Start: 23 @66259 has 62 MA's), (33, 66340), (37, 66367), (41, 66391), (59, 66553), (61, 66577), (66, 66610), (75, 66679), (77, 66694), (78, 66697), (80, 66706),

Gene: Zagie_11 Start: 4081, Stop: 3566, Start Num: 19

Candidate Starts for Zagie_11:

(Start: 17 @4090 has 1 MA's), (Start: 19 @4081 has 2 MA's), (24, 4063), (25, 4060), (27, 4012), (38, 3940), (51, 3811), (55, 3787), (56, 3784), (58, 3763), (61, 3733), (69, 3682), (70, 3661), (71, 3649), (72, 3640), (80, 3598), (81, 3595),

Gene: Zhafia_13 Start: 4077, Stop: 3553, Start Num: 17

Candidate Starts for Zhafia_13:

(Start: 17 @4077 has 1 MA's), (Start: 18 @4074 has 27 MA's), (Start: 19 @4068 has 2 MA's), (32, 3972), (35, 3948), (38, 3927), (44, 3888), (51, 3798), (55, 3774), (58, 3750), (61, 3720), (65, 3690), (70, 3648), (82, 3579), (83, 3564),