Pham 282075

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 282075 Report

This analysis was run 02/23/26 on database version 636.

Pham number 282075 has 123 members, 11 are drafts.

Phages represented in each track:
• Track 1 : Mutzi_22, Savbucketdawg_20, Danyall_22, Togo_20, Wizard_20, Jambalaya_20, TillyBobJoe_20, Gezellig_20, KimmyK_22, PullumCavea_20, Egi03_20, PinkCoffee_22, ClamChowder_22, RogerDodger_23, Fugax_22, CoveyB_22, Nubi_20, CherryCola_24, Shinji_20, Salvador_20, Fireball_21, Phlop_20, Portcullis_20, Evamon_20, Arri_23, Barb_22, VanDeWege_23, Twister6_22, Valary_23, SmokingBunny_20
• Track 2 : Halo3_21, Bakery_21
• Track 3 : YungMoney_22
• Track 4 : Clown_24
• Track 5 : Baumdotcom_21, Gaea_21, Tycho_21, Saronaya_21, Kwobi_23, YorkOnyx_22, Gustavo_21
• Track 6 : Lennon_23, Bibwit_22, Stultus_21, Sedona_23, Barsten_22, Sitar_23
• Track 7 : Geodirt_20, Kewpiedoll_22
• Track 8 : Fosterous_19
• Track 9 : McKinley_22, Love_23, Galadriel_23, Vivi2_21, Rofo_21, MoontowerMania_20, Nordenberg_16
• Track 10 : ChadMasterC_21, Sanjuju_19, Kamashten_22, Thing3_22, Jabberwocky_19
• Track 11 : FuegoCuervo_24
• Track 12 : Ribeye_22
• Track 13 : Brandonk123_23, Paries_22
• Track 14 : Shivanishola_21, McCrothy_22, BobBob_19, Charming_19, Tangent_19
• Track 15 : Derg_17, Flatwoods_22
• Track 16 : LilHam_19, SchottB_20, JKSyngboy_20
• Track 17 : Ashertheman_22
• Track 18 : RiverRaider_22
• Track 19 : Kroos_22, StorminNorm_21, Tangerine_21
• Track 20 : Affeca_21, Angelicage_21, Fitzgerald_19
• Track 21 : Keitabear_23, Ailee_21
• Track 22 : Baddon_21
• Track 23 : Bizzy_22
• Track 24 : Leonard_22, Ali17_20, Phinally_22
• Track 25 : Belphegor_19
• Track 26 : Hans_24, Phauci_15, Inspectinfecti_23
• Track 27 : EMoore_17
• Track 28 : MelBins_23
• Track 29 : Chickadee_21, Tiamoceli_22

- Track 30 : Kwekel_21
- Track 31 : Twonlo_19
- Track 32 : GTE6_21
- Track 33 : RoadKill_19, EdmundFerry_20
- Track 34 : Dexdert_22
- Track 35 : Scioto_22, Natkenzie_22, Sampson_22, Abblin_22
- Track 36 : DoctorFroggo_22, Zipp_22, Delrey21_22, Verity_22
- Track 37 : Pumpkiney_24
- Track 38 : Zitch_24, BigHunkinEater_24
- Track 39 : APunk_24
- Track 40 : ViaConlectus_23
- Track 41 : Tardus_23
- Track 42 : Lilbeanie_19
- Track 43 : phiAsp2_15
- Track 44 : Kithara_26
- Track 45 : Sunfish_33

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

The start number called the most often in the published annotations is 5, it was called in 51 of the 112 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Affeca_21, Ailee_21, Angelicage_21, Ashertheman_22, Baddon_21, Barsten_22, Baumdotcom_21, Bibwit_22, Bizzy_22, BobBob_19, Brandonk123_23, ChadMasterC_21, Charming_19, Derg_17, Fitzgerald_19, Flatwoods_22, Fosterous_19, FuegoCuervo_24, Gaea_21, Galadriel_23, Geodirt_20, Gustavo_21, JKSyngboy_20, Jabberwocky_19, Kamashten_22, Keitabear_23, Kewpiedoll_22, Kroos_22, Kwobi_23, Lennon_23, LilHam_19, Love_23, McCrothy_22, McKinley_22, MoontowerMania_20, Nordenberg_16, Paries_22, Ribeye_22, Rofo_21, Sanjuju_19, Saronaya_21, SchottB_20, Sedona_23, Shivanishola_21, Sitar_23, StorminNorm_21, Stultus_21, Tangent_19, Tangerine_21, Thing3_22, Tycho_21, Vivi2_21, YorkOnyx_22,

Genes that have the "Most Annotated" start but do not call it:
- RiverRaider_22,

Genes that do not have the "Most Annotated" start:
- APunk_24, Abblin_22, Ali17_20, Arri_23, Bakery_21, Barb_22, Belphegor_19, BigHunkinEater_24, CherryCola_24, Chickadee_21, ClamChowder_22, Clown_24, CoveyB_22, Danyall_22, Delrey21_22, Dexdert_22, DoctorFroggo_22, EMoore_17, EdmundFerry_20, Egi03_20, Evamon_20, Fireball_21, Fugax_22, GTE6_21, Gezellig_20, Halo3_21, Hans_24, Inspectinfecti_23, Jambalaya_20, KimmyK_22, Kithara_26, Kwekel_21, Leonard_22, Lilbeanie_19, MelBins_23, Mutzi_22, Natkenzie_22, Nubi_20, Phauci_15, Phinally_22, Phlop_20, PinkCoffee_22, Portcullis_20, PullumCavea_20, Pumpkiney_24, RoadKill_19, RogerDodger_23, Salvador_20, Sampson_22, Savbucketdawg_20, Scioto_22, Shinji_20, SmokingBunny_20, Sunfish_33, Tardus_23, Tiamoceli_22, TillyBobJoe_20, Togo_20, Twister6_22, Twonlo_19, Valary_23, VanDeWege_23, Verity_22, ViaConlectus_23, Wizard_20, YungMoney_22, Zipp_22, Zitch_24, phiAsp2_15,

Summary by start number:

Start 3:
• Found in 17 of 123 (13.8%) of genes in pham
• Manual Annotations of this start: 16 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ali17_20 (DE2), Belphegor_19 (DE2), Chickadee_21 (DE3), Dexdert_22 (DE3), EMoore_17 (DE2), EdmundFerry_20 (DE3), GTE6_21 (DE3), Hans_24 (DE2), Inspectinfecti_23 (DE2), Kwekel_21 (DE3), Leonard_22 (DE2), MelBins_23 (DE2), Phauci_15 (DE2), Phinally_22 (DE2), RoadKill_19 (DE3), Tiamoceli_22 (DE3), Twonlo_19 (DE3),

Start 5:
• Found in 54 of 123 (43.9%) of genes in pham
• Manual Annotations of this start: 51 of 112
• Called 98.1% of time when present
• Phage (with cluster) where this start called: Affeca_21 (DE1), Ailee_21 (DE1), Angelicage_21 (DE1), Ashertheman_22 (DE1), Baddon_21 (DE1), Barsten_22 (DE1), Baumdotcom_21 (DE1), Bibwit_22 (DE1), Bizzy_22 (DE1), BobBob_19 (DE1), Brandonk123_23 (DE1), ChadMasterC_21 (DE1), Charming_19 (DE1), Derg_17 (DE1), Fitzgerald_19 (DE1), Flatwoods_22 (DE1), Fosterous_19 (DE1), FuegoCuervo_24 (DE1), Gaea_21 (DE1), Galadriel_23 (DE1), Geodirt_20 (DE1), Gustavo_21 (DE1), JKSyngboy_20 (DE1), Jabberwocky_19 (DE1), Kamashten_22 (DE1), Keitabear_23 (DE1), Kewpiedoll_22 (DE1), Kroos_22 (DE1), Kwobi_23 (DE1), Lennon_23 (DE1), LilHam_19 (DE1), Love_23 (DE1), McCrothy_22 (DE1), McKinley_22 (DE1), MoontowerMania_20 (DE1), Nordenberg_16 (DE1), Paries_22 (DE1), Ribeye_22 (DE1), Rofo_21 (DE1), Sanjuju_19 (DE1), Saronaya_21 (DE1), SchottB_20 (DE1), Sedona_23 (DE1), Shivanishola_21 (DE1), Sitar_23 (DE1), StorminNorm_21 (DE1), Stultus_21 (DE1), Tangent_19 (DE1), Tangerine_21 (DE1), Thing3_22 (DE1), Tycho_21 (DE1), Vivi2_21 (DE1), YorkOnyx_22 (DE1),

Start 6:
• Found in 1 of 123 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RiverRaider_22 (DE1),

Start 8:
• Found in 56 of 123 (45.5%) of genes in pham
• Manual Annotations of this start: 2 of 112
• Called 3.6% of time when present
• Phage (with cluster) where this start called: Kithara_26 (singleton), Sunfish_33 (singleton),

Start 9:
• Found in 14 of 123 (11.4%) of genes in pham
• Manual Annotations of this start: 9 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: APunk_24 (DE4), Abblin_22 (DE4), BigHunkinEater_24 (DE4), Delrey21_22 (DE4), DoctorFroggo_22 (DE4), Natkenzie_22 (DE4), Pumpkiney_24 (DE4), Sampson_22 (DE4), Scioto_22 (DE4), Tardus_23 (DE4), Verity_22 (DE4), ViaConlectus_23 (DE4), Zipp_22 (DE4), Zitch_24

(DE4),

Start 10:
• Found in 1 of 123 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lilbeanie_19 (DE5),

Start 11:
• Found in 35 of 123 (28.5%) of genes in pham
• Manual Annotations of this start: 32 of 112
• Called 97.1% of time when present
• Phage (with cluster) where this start called: Arri_23 (DC1), Bakery_21 (DC1), Barb_22 (DC1), CherryCola_24 (DC1), ClamChowder_22 (DC1), Clown_24 (DC2), CoveyB_22 (DC1), Danyall_22 (DC1), Egi03_20 (DC1), Evamon_20 (DC1), Fireball_21 (DC1), Fugax_22 (DC1), Gezellig_20 (DC1), Halo3_21 (DC1), Jambalaya_20 (DC1), KimmyK_22 (DC1), Mutzi_22 (DC1), Nubi_20 (DC1), Phlop_20 (DC1), PinkCoffee_22 (DC1), Portcullis_20 (DC1), PullumCavea_20 (DC1), RogerDodger_23 (DC1), Salvador_20 (DC1), Savbucketdawg_20 (DC1), Shinji_20 (DC1), SmokingBunny_20 (DC1), TillyBobJoe_20 (DC1), Togo_20 (DC1), Twister6_22 (DC1), Valary_23 (DC1), VanDeWege_23 (DC1), Wizard_20 (DC1), YungMoney_22 (DC1),

Start 13:
• Found in 1 of 123 (0.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: phiAsp2_15 (singleton),

Summary by clusters:

There are 8 clusters represented in this pham: singleton, DE1, DE2, DE3, DE4, DE5, DC2, DC1,

Info for manual annotations of cluster DC1:
•Start number 11 was manually annotated 31 times for cluster DC1.

Info for manual annotations of cluster DC2:
•Start number 11 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:
•Start number 5 was manually annotated 51 times for cluster DE1.
•Start number 6 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster DE2:
•Start number 3 was manually annotated 9 times for cluster DE2.

Info for manual annotations of cluster DE3:
•Start number 3 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:
•Start number 9 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:
•Start number 10 was manually annotated 1 time for cluster DE5.

Gene Information:

Gene: APunk_24 Start: 18327, Stop: 19151, Start Num: 9
Candidate Starts for APunk_24:
(7, 18318), (Start: 9 @18327 has 9 MA's), (17, 18399), (22, 18465), (39, 18582), (46, 18639), (54, 18711), (56, 18732), (67, 18813), (68, 18834), (72, 18864), (77, 18885), (80, 18912), (84, 18993), (86, 18999), (88, 19020), (91, 19065), (94, 19077), (99, 19101),

Gene: Abblin_22 Start: 17540, Stop: 18364, Start Num: 9
Candidate Starts for Abblin_22:
(Start: 9 @17540 has 9 MA's), (17, 17612), (22, 17678), (31, 17753), (39, 17795), (46, 17852), (54, 17924), (56, 17945), (59, 17966), (67, 18026), (68, 18047), (70, 18068), (72, 18077), (77, 18098), (80, 18125), (83, 18182), (84, 18206), (86, 18212), (88, 18233), (94, 18290), (99, 18314),

Gene: Affeca_21 Start: 17356, Stop: 18186, Start Num: 5
Candidate Starts for Affeca_21:
(Start: 5 @17356 has 51 MA's), (Start: 8 @17365 has 2 MA's), (19, 17470), (29, 17560), (39, 17614), (41, 17638), (49, 17701), (54, 17749), (72, 17905), (80, 17953), (83, 18010), (84, 18034), (86, 18040), (92, 18109), (95, 18121), (98, 18139), (100, 18154),

Gene: Ailee_21 Start: 17270, Stop: 18100, Start Num: 5
Candidate Starts for Ailee_21:
(Start: 5 @17270 has 51 MA's), (Start: 8 @17279 has 2 MA's), (19, 17384), (24, 17432), (29, 17474), (33, 17498), (41, 17552), (49, 17615), (54, 17663), (57, 17690), (72, 17819), (80, 17867), (83, 17924), (84, 17948), (86, 17954), (92, 18023), (95, 18035), (98, 18053), (100, 18068),

Gene: Ali17_20 Start: 16677, Stop: 17507, Start Num: 3
Candidate Starts for Ali17_20:
(Start: 3 @16677 has 16 MA's), (4, 16683), (12, 16710), (14, 16716), (17, 16770), (39, 16941), (40, 16953), (49, 17028), (54, 17076), (67, 17178), (74, 17232), (79, 17262), (80, 17277), (83, 17334), (95, 17445),

Gene: Angelicage_21 Start: 17779, Stop: 18609, Start Num: 5
Candidate Starts for Angelicage_21:
(Start: 5 @17779 has 51 MA's), (Start: 8 @17788 has 2 MA's), (19, 17893), (29, 17983), (39, 18037), (41, 18061), (49, 18124), (54, 18172), (72, 18328), (80, 18376), (83, 18433), (84, 18457), (86, 18463), (92, 18532), (95, 18544), (98, 18562), (100, 18577),

Gene: Arri_23 Start: 14513, Stop: 15325, Start Num: 11
Candidate Starts for Arri_23:
(Start: 11 @14513 has 32 MA's), (18, 14594), (36, 14744), (54, 14891), (58, 14927), (71, 15041), (101, 15311),

Gene: Ashertheman_22 Start: 16864, Stop: 17691, Start Num: 5
Candidate Starts for Ashertheman_22:
(1, 16819), (2, 16825), (Start: 5 @16864 has 51 MA's), (Start: 8 @16873 has 2 MA's), (19, 16975), (29, 17065), (33, 17089), (49, 17206), (54, 17254), (61, 17305), (72, 17410), (76, 17428), (80, 17458), (82, 17479), (83, 17515), (86, 17545), (95, 17626), (98, 17644), (100, 17659),

Gene: Baddon_21 Start: 17711, Stop: 18538, Start Num: 5
Candidate Starts for Baddon_21:
(Start: 5 @17711 has 51 MA's), (Start: 8 @17720 has 2 MA's), (19, 17822), (29, 17912), (33, 17936), (49, 18053), (54, 18101), (61, 18152), (67, 18206), (72, 18257), (76, 18275), (80, 18305), (82, 18326), (83, 18362), (86, 18392), (95, 18473), (96, 18476), (98, 18491), (100, 18506),

Gene: Bakery_21 Start: 13726, Stop: 14538, Start Num: 11
Candidate Starts for Bakery_21:
(Start: 11 @13726 has 32 MA's), (18, 13807), (36, 13957), (52, 14077), (54, 14104), (71, 14254), (84, 14386), (101, 14524),

Gene: Barb_22 Start: 14500, Stop: 15312, Start Num: 11
Candidate Starts for Barb_22:
(Start: 11 @14500 has 32 MA's), (18, 14581), (36, 14731), (54, 14878), (58, 14914), (71, 15028), (101, 15298),

Gene: Barsten_22 Start: 17286, Stop: 18116, Start Num: 5
Candidate Starts for Barsten_22:
(Start: 5 @17286 has 51 MA's), (Start: 8 @17295 has 2 MA's), (19, 17400), (29, 17490), (33, 17514), (39, 17544), (41, 17568), (49, 17631), (54, 17679), (57, 17706), (72, 17835), (80, 17883), (83, 17940), (84, 17964), (86, 17970), (92, 18039), (95, 18051), (98, 18069), (100, 18084),

Gene: Baumdotcom_21 Start: 16480, Stop: 17307, Start Num: 5
Candidate Starts for Baumdotcom_21:
(Start: 5 @16480 has 51 MA's), (Start: 8 @16489 has 2 MA's), (19, 16591), (29, 16681), (49, 16822), (54, 16870), (61, 16921), (67, 16975), (72, 17026), (76, 17044), (80, 17074), (82, 17095), (83, 17131), (86, 17161), (95, 17242), (98, 17260), (100, 17275),

Gene: Belphegor_19 Start: 15791, Stop: 16621, Start Num: 3
Candidate Starts for Belphegor_19:
(Start: 3 @15791 has 16 MA's), (4, 15797), (14, 15830), (17, 15884), (39, 16055), (40, 16067), (54, 16190), (68, 16313), (80, 16391), (83, 16448), (95, 16559),

Gene: Bibwit_22 Start: 17521, Stop: 18351, Start Num: 5
Candidate Starts for Bibwit_22:
(Start: 5 @17521 has 51 MA's), (Start: 8 @17530 has 2 MA's), (19, 17635), (29, 17725), (33, 17749), (39, 17779), (41, 17803), (49, 17866), (54, 17914), (57, 17941), (72, 18070), (80, 18118), (83, 18175), (84, 18199), (86, 18205), (92, 18274), (95, 18286), (98, 18304), (100, 18319),

Gene: BigHunkinEater_24 Start: 16649, Stop: 17473, Start Num: 9
Candidate Starts for BigHunkinEater_24:
(7, 16640), (Start: 9 @16649 has 9 MA's), (17, 16721), (22, 16787), (39, 16904), (46, 16961), (54, 17033), (56, 17054), (67, 17135), (68, 17156), (72, 17186), (77, 17207), (80, 17234), (84, 17315), (86, 17321), (88, 17342), (99, 17423),

Gene: Bizzy_22 Start: 16765, Stop: 17592, Start Num: 5
Candidate Starts for Bizzy_22:
(Start: 5 @16765 has 51 MA's), (Start: 8 @16774 has 2 MA's), (19, 16876), (29, 16966), (49, 17107), (54, 17155), (61, 17206), (67, 17260), (72, 17311), (76, 17329), (80, 17359), (82, 17380), (83, 17416), (86, 17446), (87, 17461), (95, 17527), (98, 17545), (100, 17560),

Gene: BobBob_19 Start: 16143, Stop: 16973, Start Num: 5

Candidate Starts for BobBob_19:
(Start: 5 @16143 has 51 MA's), (Start: 8 @16152 has 2 MA's), (19, 16257), (29, 16347), (39, 16401), (41, 16425), (49, 16488), (54, 16536), (57, 16563), (60, 16584), (62, 16593), (72, 16692), (80, 16740), (83, 16797), (84, 16821), (86, 16827), (92, 16896), (95, 16908), (98, 16926), (100, 16941),

Gene: Brandonk123_23 Start: 16835, Stop: 17665, Start Num: 5
Candidate Starts for Brandonk123_23:
(Start: 5 @16835 has 51 MA's), (Start: 8 @16844 has 2 MA's), (19, 16949), (29, 17039), (33, 17063), (41, 17117), (49, 17180), (54, 17228), (57, 17255), (62, 17285), (72, 17384), (80, 17432), (83, 17489), (86, 17519), (92, 17588), (95, 17600), (98, 17618), (100, 17633),

Gene: ChadMasterC_21 Start: 17242, Stop: 18072, Start Num: 5
Candidate Starts for ChadMasterC_21:
(Start: 5 @17242 has 51 MA's), (Start: 8 @17251 has 2 MA's), (19, 17356), (29, 17446), (39, 17500), (41, 17524), (49, 17587), (54, 17635), (57, 17662), (72, 17791), (80, 17839), (83, 17896), (84, 17920), (86, 17926), (92, 17995), (95, 18007), (98, 18025), (100, 18040),

Gene: Charming_19 Start: 16145, Stop: 16975, Start Num: 5
Candidate Starts for Charming_19:
(Start: 5 @16145 has 51 MA's), (Start: 8 @16154 has 2 MA's), (19, 16259), (29, 16349), (39, 16403), (41, 16427), (49, 16490), (54, 16538), (57, 16565), (60, 16586), (62, 16595), (72, 16694), (80, 16742), (83, 16799), (84, 16823), (86, 16829), (92, 16898), (95, 16910), (98, 16928), (100, 16943),

Gene: CherryCola_24 Start: 14709, Stop: 15521, Start Num: 11
Candidate Starts for CherryCola_24:
(Start: 11 @14709 has 32 MA's), (18, 14790), (36, 14940), (54, 15087), (58, 15123), (71, 15237), (101, 15507),

Gene: Chickadee_21 Start: 15725, Stop: 16555, Start Num: 3
Candidate Starts for Chickadee_21:
(Start: 3 @15725 has 16 MA's), (21, 15881), (23, 15893), (35, 15971), (47, 16055), (52, 16097), (54, 16124), (67, 16226), (72, 16277), (84, 16406), (86, 16412), (88, 16433), (95, 16493), (97, 16508),

Gene: ClamChowder_22 Start: 14500, Stop: 15312, Start Num: 11
Candidate Starts for ClamChowder_22:
(Start: 11 @14500 has 32 MA's), (18, 14581), (36, 14731), (54, 14878), (58, 14914), (71, 15028), (101, 15298),

Gene: Clown_24 Start: 16474, Stop: 17325, Start Num: 11
Candidate Starts for Clown_24:
(Start: 11 @16474 has 32 MA's), (15, 16492), (16, 16516), (18, 16549), (24, 16621), (32, 16684), (44, 16771), (50, 16813), (54, 16858), (68, 16984), (73, 17014), (78, 17044), (84, 17143), (89, 17170), (100, 17248), (101, 17266),

Gene: CoveyB_22 Start: 14345, Stop: 15157, Start Num: 11
Candidate Starts for CoveyB_22:
(Start: 11 @14345 has 32 MA's), (18, 14426), (36, 14576), (54, 14723), (58, 14759), (71, 14873), (101, 15143),

Gene: Danyall_22 Start: 14345, Stop: 15157, Start Num: 11
Candidate Starts for Danyall_22:
(Start: 11 @14345 has 32 MA's), (18, 14426), (36, 14576), (54, 14723), (58, 14759), (71, 14873), (101, 15143),

Gene: Delrey21_22 Start: 17000, Stop: 17824, Start Num: 9
Candidate Starts for Delrey21_22:
(Start: 9 @17000 has 9 MA's), (17, 17072), (39, 17255), (43, 17282), (46, 17312), (54, 17384), (56, 17405), (67, 17486), (72, 17537), (77, 17558), (80, 17585), (83, 17642), (84, 17666), (86, 17672), (87, 17687), (88, 17693), (99, 17774), (100, 17786),

Gene: Derg_17 Start: 16357, Stop: 17184, Start Num: 5
Candidate Starts for Derg_17:
(Start: 5 @16357 has 51 MA's), (Start: 8 @16366 has 2 MA's), (19, 16468), (29, 16558), (33, 16582), (49, 16699), (54, 16747), (61, 16798), (67, 16852), (72, 16903), (76, 16921), (80, 16951), (82, 16972), (83, 17008), (86, 17038), (87, 17053), (95, 17119), (98, 17137), (100, 17152), (101, 17170),

Gene: Dexdert_22 Start: 16169, Stop: 16999, Start Num: 3
Candidate Starts for Dexdert_22:
(Start: 3 @16169 has 16 MA's), (21, 16325), (23, 16337), (47, 16499), (52, 16541), (54, 16568), (67, 16670), (72, 16721), (84, 16850), (86, 16856), (88, 16877), (95, 16937), (97, 16952),

Gene: DoctorFroggo_22 Start: 17000, Stop: 17824, Start Num: 9
Candidate Starts for DoctorFroggo_22:
(Start: 9 @17000 has 9 MA's), (17, 17072), (39, 17255), (43, 17282), (46, 17312), (54, 17384), (56, 17405), (67, 17486), (72, 17537), (77, 17558), (80, 17585), (83, 17642), (84, 17666), (86, 17672), (87, 17687), (88, 17693), (99, 17774), (100, 17786),

Gene: EMoore_17 Start: 15039, Stop: 15869, Start Num: 3
Candidate Starts for EMoore_17:
(Start: 3 @15039 has 16 MA's), (4, 15045), (12, 15072), (14, 15078), (17, 15132), (39, 15303), (40, 15315), (49, 15390), (54, 15438), (61, 15486), (67, 15540), (74, 15594), (80, 15639), (83, 15696), (95, 15807),

Gene: EdmundFerry_20 Start: 15753, Stop: 16583, Start Num: 3
Candidate Starts for EdmundFerry_20:
(Start: 3 @15753 has 16 MA's), (21, 15909), (23, 15921), (35, 15999), (47, 16083), (52, 16125), (54, 16152), (67, 16254), (68, 16275), (72, 16305), (84, 16434), (86, 16440), (88, 16461), (95, 16521),

Gene: Egi03_20 Start: 13961, Stop: 14773, Start Num: 11
Candidate Starts for Egi03_20:
(Start: 11 @13961 has 32 MA's), (18, 14042), (36, 14192), (54, 14339), (58, 14375), (71, 14489), (101, 14759),

Gene: Evamon_20 Start: 13832, Stop: 14644, Start Num: 11
Candidate Starts for Evamon_20:
(Start: 11 @13832 has 32 MA's), (18, 13913), (36, 14063), (54, 14210), (58, 14246), (71, 14360), (101, 14630),

Gene: Fireball_21 Start: 13964, Stop: 14776, Start Num: 11
Candidate Starts for Fireball_21:
(Start: 11 @13964 has 32 MA's), (18, 14045), (36, 14195), (54, 14342), (58, 14378), (71, 14492), (101, 14762),

Gene: Fitzgerald_19 Start: 16571, Stop: 17401, Start Num: 5
Candidate Starts for Fitzgerald_19:

(Start: 5 @16571 has 51 MA's), (Start: 8 @16580 has 2 MA's), (19, 16685), (29, 16775), (39, 16829), (41, 16853), (49, 16916), (54, 16964), (72, 17120), (80, 17168), (83, 17225), (84, 17249), (86, 17255), (92, 17324), (95, 17336), (98, 17354), (100, 17369),

Gene: Flatwoods_22 Start: 16784, Stop: 17611, Start Num: 5
Candidate Starts for Flatwoods_22:
(Start: 5 @16784 has 51 MA's), (Start: 8 @16793 has 2 MA's), (19, 16895), (29, 16985), (33, 17009), (49, 17126), (54, 17174), (61, 17225), (67, 17279), (72, 17330), (76, 17348), (80, 17378), (82, 17399), (83, 17435), (86, 17465), (87, 17480), (95, 17546), (98, 17564), (100, 17579), (101, 17597),

Gene: Fosterous_19 Start: 17034, Stop: 17864, Start Num: 5
Candidate Starts for Fosterous_19:
(Start: 5 @17034 has 51 MA's), (Start: 8 @17043 has 2 MA's), (19, 17148), (24, 17196), (29, 17238), (33, 17262), (39, 17292), (41, 17316), (49, 17379), (54, 17427), (72, 17583), (80, 17631), (83, 17688), (84, 17712), (86, 17718), (92, 17787), (95, 17799), (98, 17817), (100, 17832),

Gene: FuegoCuervo_24 Start: 16323, Stop: 17153, Start Num: 5
Candidate Starts for FuegoCuervo_24:
(Start: 5 @16323 has 51 MA's), (Start: 8 @16332 has 2 MA's), (19, 16437), (29, 16527), (33, 16551), (39, 16581), (41, 16605), (49, 16668), (54, 16716), (57, 16743), (62, 16773), (72, 16872), (80, 16920), (83, 16977), (86, 17007), (92, 17076), (95, 17088), (98, 17106), (100, 17121),

Gene: Fugax_22 Start: 14500, Stop: 15312, Start Num: 11
Candidate Starts for Fugax_22:
(Start: 11 @14500 has 32 MA's), (18, 14581), (36, 14731), (54, 14878), (58, 14914), (71, 15028), (101, 15298),

Gene: GTE6_21 Start: 16242, Stop: 17072, Start Num: 3
Candidate Starts for GTE6_21:
(Start: 3 @16242 has 16 MA's), (21, 16398), (23, 16410), (35, 16488), (47, 16572), (52, 16614), (54, 16641), (67, 16743), (72, 16794), (84, 16923), (86, 16929), (88, 16950), (95, 17010), (97, 17025), (100, 17043),

Gene: Gaea_21 Start: 16472, Stop: 17299, Start Num: 5
Candidate Starts for Gaea_21:
(Start: 5 @16472 has 51 MA's), (Start: 8 @16481 has 2 MA's), (19, 16583), (29, 16673), (49, 16814), (54, 16862), (61, 16913), (67, 16967), (72, 17018), (76, 17036), (80, 17066), (82, 17087), (83, 17123), (86, 17153), (95, 17234), (98, 17252), (100, 17267),

Gene: Galadriel_23 Start: 16884, Stop: 17714, Start Num: 5
Candidate Starts for Galadriel_23:
(Start: 5 @16884 has 51 MA's), (Start: 8 @16893 has 2 MA's), (19, 16998), (29, 17088), (39, 17142), (41, 17166), (49, 17229), (54, 17277), (57, 17304), (62, 17334), (72, 17433), (80, 17481), (83, 17538), (84, 17562), (86, 17568), (92, 17637), (95, 17649), (98, 17667), (100, 17682),

Gene: Geodirt_20 Start: 17101, Stop: 17931, Start Num: 5
Candidate Starts for Geodirt_20:
(Start: 5 @17101 has 51 MA's), (Start: 8 @17110 has 2 MA's), (19, 17215), (29, 17305), (33, 17329), (39, 17359), (41, 17383), (49, 17446), (54, 17494), (57, 17521), (72, 17650), (80, 17698), (83, 17755), (86, 17785), (92, 17854), (95, 17866), (98, 17884), (100, 17899),

Gene: Gezellig_20 Start: 13964, Stop: 14776, Start Num: 11
Candidate Starts for Gezellig_20:

(Start: 11 @13964 has 32 MA's), (18, 14045), (36, 14195), (54, 14342), (58, 14378), (71, 14492), (101, 14762),

Gene: Gustavo_21 Start: 16571, Stop: 17398, Start Num: 5
Candidate Starts for Gustavo_21:
(Start: 5 @16571 has 51 MA's), (Start: 8 @16580 has 2 MA's), (19, 16682), (29, 16772), (49, 16913), (54, 16961), (61, 17012), (67, 17066), (72, 17117), (76, 17135), (80, 17165), (82, 17186), (83, 17222), (86, 17252), (95, 17333), (98, 17351), (100, 17366),

Gene: Halo3_21 Start: 14285, Stop: 15097, Start Num: 11
Candidate Starts for Halo3_21:
(Start: 11 @14285 has 32 MA's), (18, 14366), (36, 14516), (52, 14636), (54, 14663), (71, 14813), (84, 14945), (101, 15083),

Gene: Hans_24 Start: 17335, Stop: 18165, Start Num: 3
Candidate Starts for Hans_24:
(Start: 3 @17335 has 16 MA's), (4, 17341), (12, 17368), (14, 17374), (17, 17428), (39, 17599), (40, 17611), (49, 17686), (54, 17734), (67, 17836), (74, 17890), (80, 17935), (83, 17992), (95, 18103),

Gene: Inspectinfecti_23 Start: 17760, Stop: 18590, Start Num: 3
Candidate Starts for Inspectinfecti_23:
(Start: 3 @17760 has 16 MA's), (4, 17766), (12, 17793), (14, 17799), (17, 17853), (39, 18024), (40, 18036), (49, 18111), (54, 18159), (67, 18261), (74, 18315), (80, 18360), (83, 18417), (95, 18528),

Gene: JKSyngboy_20 Start: 17230, Stop: 18057, Start Num: 5
Candidate Starts for JKSyngboy_20:
(Start: 5 @17230 has 51 MA's), (Start: 8 @17239 has 2 MA's), (19, 17341), (33, 17455), (49, 17572), (54, 17620), (61, 17671), (67, 17725), (72, 17776), (76, 17794), (80, 17824), (82, 17845), (83, 17881), (86, 17911), (95, 17992), (98, 18010), (100, 18025),

Gene: Jabberwocky_19 Start: 17005, Stop: 17835, Start Num: 5
Candidate Starts for Jabberwocky_19:
(Start: 5 @17005 has 51 MA's), (Start: 8 @17014 has 2 MA's), (19, 17119), (29, 17209), (39, 17263), (41, 17287), (49, 17350), (54, 17398), (57, 17425), (72, 17554), (80, 17602), (83, 17659), (84, 17683), (86, 17689), (92, 17758), (95, 17770), (98, 17788), (100, 17803),

Gene: Jambalaya_20 Start: 13611, Stop: 14423, Start Num: 11
Candidate Starts for Jambalaya_20:
(Start: 11 @13611 has 32 MA's), (18, 13692), (36, 13842), (54, 13989), (58, 14025), (71, 14139), (101, 14409),

Gene: Kamashten_22 Start: 17689, Stop: 18519, Start Num: 5
Candidate Starts for Kamashten_22:
(Start: 5 @17689 has 51 MA's), (Start: 8 @17698 has 2 MA's), (19, 17803), (29, 17893), (39, 17947), (41, 17971), (49, 18034), (54, 18082), (57, 18109), (72, 18238), (80, 18286), (83, 18343), (84, 18367), (86, 18373), (92, 18442), (95, 18454), (98, 18472), (100, 18487),

Gene: Keitabear_23 Start: 19226, Stop: 20056, Start Num: 5
Candidate Starts for Keitabear_23:
(Start: 5 @19226 has 51 MA's), (Start: 8 @19235 has 2 MA's), (19, 19340), (24, 19388), (29, 19430), (33, 19454), (41, 19508), (49, 19571), (54, 19619), (57, 19646), (72, 19775), (80, 19823), (83, 19880), (84, 19904), (86, 19910), (92, 19979), (95, 19991), (98, 20009), (100, 20024),

Gene: Kewpiedoll_22 Start: 17077, Stop: 17907, Start Num: 5
Candidate Starts for Kewpiedoll_22:
(Start: 5 @17077 has 51 MA's), (Start: 8 @17086 has 2 MA's), (19, 17191), (29, 17281), (33, 17305), (39, 17335), (41, 17359), (49, 17422), (54, 17470), (57, 17497), (72, 17626), (80, 17674), (83, 17731), (86, 17761), (92, 17830), (95, 17842), (98, 17860), (100, 17875),

Gene: KimmyK_22 Start: 14500, Stop: 15312, Start Num: 11
Candidate Starts for KimmyK_22:
(Start: 11 @14500 has 32 MA's), (18, 14581), (36, 14731), (54, 14878), (58, 14914), (71, 15028), (101, 15298),

Gene: Kithara_26 Start: 16496, Stop: 17302, Start Num: 8
Candidate Starts for Kithara_26:
(Start: 8 @16496 has 2 MA's), (18, 16589), (27, 16664), (30, 16691), (34, 16724), (38, 16739), (55, 16892), (63, 16943), (66, 16955), (72, 17024), (92, 17219), (94, 17228), (101, 17285),

Gene: Kroos_22 Start: 17329, Stop: 18156, Start Num: 5
Candidate Starts for Kroos_22:
(Start: 5 @17329 has 51 MA's), (Start: 8 @17338 has 2 MA's), (19, 17440), (20, 17467), (29, 17530), (33, 17554), (49, 17671), (54, 17719), (61, 17770), (67, 17824), (72, 17875), (76, 17893), (80, 17923), (82, 17944), (83, 17980), (86, 18010), (95, 18091), (98, 18109), (100, 18124),

Gene: Kwekel_21 Start: 15688, Stop: 16518, Start Num: 3
Candidate Starts for Kwekel_21:
(Start: 3 @15688 has 16 MA's), (17, 15778), (23, 15856), (47, 16018), (52, 16060), (54, 16087), (64, 16162), (67, 16189), (72, 16240), (84, 16369), (86, 16375), (88, 16396), (95, 16456), (97, 16471),

Gene: Kwobi_23 Start: 17311, Stop: 18138, Start Num: 5
Candidate Starts for Kwobi_23:
(Start: 5 @17311 has 51 MA's), (Start: 8 @17320 has 2 MA's), (19, 17422), (29, 17512), (49, 17653), (54, 17701), (61, 17752), (67, 17806), (72, 17857), (76, 17875), (80, 17905), (82, 17926), (83, 17962), (86, 17992), (95, 18073), (98, 18091), (100, 18106),

Gene: Lennon_23 Start: 18329, Stop: 19159, Start Num: 5
Candidate Starts for Lennon_23:
(Start: 5 @18329 has 51 MA's), (Start: 8 @18338 has 2 MA's), (19, 18443), (29, 18533), (33, 18557), (39, 18587), (41, 18611), (49, 18674), (54, 18722), (57, 18749), (72, 18878), (80, 18926), (83, 18983), (84, 19007), (86, 19013), (92, 19082), (95, 19094), (98, 19112), (100, 19127),

Gene: Leonard_22 Start: 17355, Stop: 18185, Start Num: 3
Candidate Starts for Leonard_22:
(Start: 3 @17355 has 16 MA's), (4, 17361), (12, 17388), (14, 17394), (17, 17448), (39, 17619), (40, 17631), (49, 17706), (54, 17754), (67, 17856), (74, 17910), (79, 17940), (80, 17955), (83, 18012), (95, 18123),

Gene: LilHam_19 Start: 15890, Stop: 16717, Start Num: 5
Candidate Starts for LilHam_19:
(Start: 5 @15890 has 51 MA's), (Start: 8 @15899 has 2 MA's), (19, 16001), (33, 16115), (49, 16232), (54, 16280), (61, 16331), (67, 16385), (72, 16436), (76, 16454), (80, 16484), (82, 16505), (83, 16541), (86, 16571), (95, 16652), (98, 16670), (100, 16685),

Gene: Lilbeanie_19 Start: 12678, Stop: 13550, Start Num: 10
Candidate Starts for Lilbeanie_19:

(Start: 10 @12678 has 1 MA's), (39, 12936), (43, 12969), (48, 13014), (54, 13089), (62, 13146), (65, 13173), (67, 13194), (68, 13215), (69, 13224), (71, 13242), (72, 13245), (76, 13263), (77, 13266), (80, 13293), (86, 13386), (92, 13455), (98, 13485), (101, 13518),

Gene: Love_23 Start: 17204, Stop: 18034, Start Num: 5
Candidate Starts for Love_23:
(Start: 5 @17204 has 51 MA's), (Start: 8 @17213 has 2 MA's), (19, 17318), (29, 17408), (39, 17462), (41, 17486), (49, 17549), (54, 17597), (57, 17624), (62, 17654), (72, 17753), (80, 17801), (83, 17858), (84, 17882), (86, 17888), (92, 17957), (95, 17969), (98, 17987), (100, 18002),

Gene: McCrothy_22 Start: 17073, Stop: 17903, Start Num: 5
Candidate Starts for McCrothy_22:
(Start: 5 @17073 has 51 MA's), (Start: 8 @17082 has 2 MA's), (19, 17187), (29, 17277), (39, 17331), (41, 17355), (49, 17418), (54, 17466), (57, 17493), (60, 17514), (62, 17523), (72, 17622), (80, 17670), (83, 17727), (84, 17751), (86, 17757), (92, 17826), (95, 17838), (98, 17856), (100, 17871),

Gene: McKinley_22 Start: 17230, Stop: 18060, Start Num: 5
Candidate Starts for McKinley_22:
(Start: 5 @17230 has 51 MA's), (Start: 8 @17239 has 2 MA's), (19, 17344), (29, 17434), (39, 17488), (41, 17512), (49, 17575), (54, 17623), (57, 17650), (62, 17680), (72, 17779), (80, 17827), (83, 17884), (84, 17908), (86, 17914), (92, 17983), (95, 17995), (98, 18013), (100, 18028),

Gene: MelBins_23 Start: 17556, Stop: 18386, Start Num: 3
Candidate Starts for MelBins_23:
(Start: 3 @17556 has 16 MA's), (4, 17562), (12, 17589), (14, 17595), (17, 17649), (39, 17820), (40, 17832), (54, 17955), (67, 18057), (74, 18111), (79, 18141), (80, 18156), (83, 18213), (95, 18324),

Gene: MoontowerMania_20 Start: 16210, Stop: 17040, Start Num: 5
Candidate Starts for MoontowerMania_20:
(Start: 5 @16210 has 51 MA's), (Start: 8 @16219 has 2 MA's), (19, 16324), (29, 16414), (39, 16468), (41, 16492), (49, 16555), (54, 16603), (57, 16630), (62, 16660), (72, 16759), (80, 16807), (83, 16864), (84, 16888), (86, 16894), (92, 16963), (95, 16975), (98, 16993), (100, 17008),

Gene: Mutzi_22 Start: 14224, Stop: 15036, Start Num: 11
Candidate Starts for Mutzi_22:
(Start: 11 @14224 has 32 MA's), (18, 14305), (36, 14455), (54, 14602), (58, 14638), (71, 14752), (101, 15022),

Gene: Natkenzie_22 Start: 17540, Stop: 18364, Start Num: 9
Candidate Starts for Natkenzie_22:
(Start: 9 @17540 has 9 MA's), (17, 17612), (22, 17678), (31, 17753), (39, 17795), (46, 17852), (54, 17924), (56, 17945), (59, 17966), (67, 18026), (68, 18047), (70, 18068), (72, 18077), (77, 18098), (80, 18125), (83, 18182), (84, 18206), (86, 18212), (88, 18233), (94, 18290), (99, 18314),

Gene: Nordenberg_16 Start: 15524, Stop: 16354, Start Num: 5
Candidate Starts for Nordenberg_16:
(Start: 5 @15524 has 51 MA's), (Start: 8 @15533 has 2 MA's), (19, 15638), (29, 15728), (39, 15782), (41, 15806), (49, 15869), (54, 15917), (57, 15944), (62, 15974), (72, 16073), (80, 16121), (83, 16178), (84, 16202), (86, 16208), (92, 16277), (95, 16289), (98, 16307), (100, 16322),

Gene: Nubi_20 Start: 13852, Stop: 14664, Start Num: 11
Candidate Starts for Nubi_20:

(Start: 11 @13852 has 32 MA's), (18, 13933), (36, 14083), (54, 14230), (58, 14266), (71, 14380), (101, 14650),

Gene: Paries_22 Start: 16892, Stop: 17722, Start Num: 5
Candidate Starts for Paries_22:
(Start: 5 @16892 has 51 MA's), (Start: 8 @16901 has 2 MA's), (19, 17006), (29, 17096), (33, 17120), (41, 17174), (49, 17237), (54, 17285), (57, 17312), (62, 17342), (72, 17441), (80, 17489), (83, 17546), (86, 17576), (92, 17645), (95, 17657), (98, 17675), (100, 17690),

Gene: Phauci_15 Start: 13922, Stop: 14752, Start Num: 3
Candidate Starts for Phauci_15:
(Start: 3 @13922 has 16 MA's), (4, 13928), (12, 13955), (14, 13961), (17, 14015), (39, 14186), (40, 14198), (49, 14273), (54, 14321), (67, 14423), (74, 14477), (80, 14522), (83, 14579), (95, 14690),

Gene: Phinally_22 Start: 17352, Stop: 18182, Start Num: 3
Candidate Starts for Phinally_22:
(Start: 3 @17352 has 16 MA's), (4, 17358), (12, 17385), (14, 17391), (17, 17445), (39, 17616), (40, 17628), (49, 17703), (54, 17751), (67, 17853), (74, 17907), (79, 17937), (80, 17952), (83, 18009), (95, 18120),

Gene: Phlop_20 Start: 13916, Stop: 14728, Start Num: 11
Candidate Starts for Phlop_20:
(Start: 11 @13916 has 32 MA's), (18, 13997), (36, 14147), (54, 14294), (58, 14330), (71, 14444), (101, 14714),

Gene: PinkCoffee_22 Start: 14509, Stop: 15321, Start Num: 11
Candidate Starts for PinkCoffee_22:
(Start: 11 @14509 has 32 MA's), (18, 14590), (36, 14740), (54, 14887), (58, 14923), (71, 15037), (101, 15307),

Gene: Portcullis_20 Start: 13859, Stop: 14671, Start Num: 11
Candidate Starts for Portcullis_20:
(Start: 11 @13859 has 32 MA's), (18, 13940), (36, 14090), (54, 14237), (58, 14273), (71, 14387), (101, 14657),

Gene: PullumCavea_20 Start: 13916, Stop: 14728, Start Num: 11
Candidate Starts for PullumCavea_20:
(Start: 11 @13916 has 32 MA's), (18, 13997), (36, 14147), (54, 14294), (58, 14330), (71, 14444), (101, 14714),

Gene: Pumpkiney_24 Start: 16247, Stop: 17071, Start Num: 9
Candidate Starts for Pumpkiney_24:
(Start: 9 @16247 has 9 MA's), (17, 16319), (22, 16385), (39, 16502), (46, 16559), (54, 16631), (56, 16652), (67, 16733), (68, 16754), (72, 16784), (77, 16805), (84, 16913), (86, 16919), (88, 16940), (91, 16985), (94, 16997), (99, 17021),

Gene: Ribeye_22 Start: 17792, Stop: 18619, Start Num: 5
Candidate Starts for Ribeye_22:
(Start: 5 @17792 has 51 MA's), (Start: 8 @17801 has 2 MA's), (19, 17903), (29, 17993), (49, 18134), (54, 18182), (61, 18233), (67, 18287), (72, 18338), (76, 18356), (80, 18386), (82, 18407), (83, 18443), (86, 18473), (95, 18554), (98, 18572), (100, 18587), (101, 18605),

Gene: RiverRaider_22 Start: 16175, Stop: 17002, Start Num: 6

Candidate Starts for RiverRaider_22:
(Start: 5 @16172 has 51 MA's), (Start: 6 @16175 has 1 MA's), (Start: 8 @16181 has 2 MA's), (19, 16286), (49, 16517), (54, 16565), (61, 16616), (72, 16721), (76, 16739), (77, 16742), (80, 16769), (83, 16826), (84, 16850), (85, 16853), (86, 16856), (90, 16913), (95, 16937), (98, 16955),

Gene: RoadKill_19 Start: 15230, Stop: 16060, Start Num: 3
Candidate Starts for RoadKill_19:
(Start: 3 @15230 has 16 MA's), (21, 15386), (23, 15398), (35, 15476), (47, 15560), (52, 15602), (54, 15629), (67, 15731), (68, 15752), (72, 15782), (84, 15911), (86, 15917), (88, 15938), (95, 15998),

Gene: Rofo_21 Start: 17144, Stop: 17974, Start Num: 5
Candidate Starts for Rofo_21:
(Start: 5 @17144 has 51 MA's), (Start: 8 @17153 has 2 MA's), (19, 17258), (29, 17348), (39, 17402), (41, 17426), (49, 17489), (54, 17537), (57, 17564), (62, 17594), (72, 17693), (80, 17741), (83, 17798), (84, 17822), (86, 17828), (92, 17897), (95, 17909), (98, 17927), (100, 17942),

Gene: RogerDodger_23 Start: 14709, Stop: 15521, Start Num: 11
Candidate Starts for RogerDodger_23:
(Start: 11 @14709 has 32 MA's), (18, 14790), (36, 14940), (54, 15087), (58, 15123), (71, 15237), (101, 15507),

Gene: Salvador_20 Start: 13830, Stop: 14642, Start Num: 11
Candidate Starts for Salvador_20:
(Start: 11 @13830 has 32 MA's), (18, 13911), (36, 14061), (54, 14208), (58, 14244), (71, 14358), (101, 14628),

Gene: Sampson_22 Start: 17485, Stop: 18309, Start Num: 9
Candidate Starts for Sampson_22:
(Start: 9 @17485 has 9 MA's), (17, 17557), (22, 17623), (31, 17698), (39, 17740), (46, 17797), (54, 17869), (56, 17890), (59, 17911), (67, 17971), (68, 17992), (70, 18013), (72, 18022), (77, 18043), (80, 18070), (83, 18127), (84, 18151), (86, 18157), (88, 18178), (94, 18235), (99, 18259),

Gene: Sanjuju_19 Start: 16656, Stop: 17486, Start Num: 5
Candidate Starts for Sanjuju_19:
(Start: 5 @16656 has 51 MA's), (Start: 8 @16665 has 2 MA's), (19, 16770), (29, 16860), (39, 16914), (41, 16938), (49, 17001), (54, 17049), (57, 17076), (72, 17205), (80, 17253), (83, 17310), (84, 17334), (86, 17340), (92, 17409), (95, 17421), (98, 17439), (100, 17454),

Gene: Saronaya_21 Start: 16571, Stop: 17398, Start Num: 5
Candidate Starts for Saronaya_21:
(Start: 5 @16571 has 51 MA's), (Start: 8 @16580 has 2 MA's), (19, 16682), (29, 16772), (49, 16913), (54, 16961), (61, 17012), (67, 17066), (72, 17117), (76, 17135), (80, 17165), (82, 17186), (83, 17222), (86, 17252), (95, 17333), (98, 17351), (100, 17366),

Gene: Savbucketdawg_20 Start: 13611, Stop: 14423, Start Num: 11
Candidate Starts for Savbucketdawg_20:
(Start: 11 @13611 has 32 MA's), (18, 13692), (36, 13842), (54, 13989), (58, 14025), (71, 14139), (101, 14409),

Gene: SchottB_20 Start: 17572, Stop: 18399, Start Num: 5
Candidate Starts for SchottB_20:
(Start: 5 @17572 has 51 MA's), (Start: 8 @17581 has 2 MA's), (19, 17683), (33, 17797), (49, 17914), (54, 17962), (61, 18013), (67, 18067), (72, 18118), (76, 18136), (80, 18166), (82, 18187), (83, 18223),

(86, 18253), (95, 18334), (98, 18352), (100, 18367),

Gene: Scioto_22 Start: 17540, Stop: 18364, Start Num: 9
Candidate Starts for Scioto_22:
(Start: 9 @17540 has 9 MA's), (17, 17612), (22, 17678), (31, 17753), (39, 17795), (46, 17852), (54, 17924), (56, 17945), (59, 17966), (67, 18026), (68, 18047), (70, 18068), (72, 18077), (77, 18098), (80, 18125), (83, 18182), (84, 18206), (86, 18212), (88, 18233), (94, 18290), (99, 18314),

Gene: Sedona_23 Start: 18961, Stop: 19791, Start Num: 5
Candidate Starts for Sedona_23:
(Start: 5 @18961 has 51 MA's), (Start: 8 @18970 has 2 MA's), (19, 19075), (29, 19165), (33, 19189), (39, 19219), (41, 19243), (49, 19306), (54, 19354), (57, 19381), (72, 19510), (80, 19558), (83, 19615), (84, 19639), (86, 19645), (92, 19714), (95, 19726), (98, 19744), (100, 19759),

Gene: Shinji_20 Start: 13800, Stop: 14612, Start Num: 11
Candidate Starts for Shinji_20:
(Start: 11 @13800 has 32 MA's), (18, 13881), (36, 14031), (54, 14178), (58, 14214), (71, 14328), (101, 14598),

Gene: Shivanishola_21 Start: 16950, Stop: 17780, Start Num: 5
Candidate Starts for Shivanishola_21:
(Start: 5 @16950 has 51 MA's), (Start: 8 @16959 has 2 MA's), (19, 17064), (29, 17154), (39, 17208), (41, 17232), (49, 17295), (54, 17343), (57, 17370), (60, 17391), (62, 17400), (72, 17499), (80, 17547), (83, 17604), (84, 17628), (86, 17634), (92, 17703), (95, 17715), (98, 17733), (100, 17748),

Gene: Sitar_23 Start: 18329, Stop: 19159, Start Num: 5
Candidate Starts for Sitar_23:
(Start: 5 @18329 has 51 MA's), (Start: 8 @18338 has 2 MA's), (19, 18443), (29, 18533), (33, 18557), (39, 18587), (41, 18611), (49, 18674), (54, 18722), (57, 18749), (72, 18878), (80, 18926), (83, 18983), (84, 19007), (86, 19013), (92, 19082), (95, 19094), (98, 19112), (100, 19127),

Gene: SmokingBunny_20 Start: 13830, Stop: 14642, Start Num: 11
Candidate Starts for SmokingBunny_20:
(Start: 11 @13830 has 32 MA's), (18, 13911), (36, 14061), (54, 14208), (58, 14244), (71, 14358), (101, 14628),

Gene: StorminNorm_21 Start: 16451, Stop: 17278, Start Num: 5
Candidate Starts for StorminNorm_21:
(Start: 5 @16451 has 51 MA's), (Start: 8 @16460 has 2 MA's), (19, 16562), (20, 16589), (29, 16652), (33, 16676), (49, 16793), (54, 16841), (61, 16892), (67, 16946), (72, 16997), (76, 17015), (80, 17045), (82, 17066), (83, 17102), (86, 17132), (95, 17213), (98, 17231), (100, 17246),

Gene: Stultus_21 Start: 16940, Stop: 17770, Start Num: 5
Candidate Starts for Stultus_21:
(Start: 5 @16940 has 51 MA's), (Start: 8 @16949 has 2 MA's), (19, 17054), (29, 17144), (33, 17168), (39, 17198), (41, 17222), (49, 17285), (54, 17333), (57, 17360), (72, 17489), (80, 17537), (83, 17594), (84, 17618), (86, 17624), (92, 17693), (95, 17705), (98, 17723), (100, 17738),

Gene: Sunfish_33 Start: 16941, Stop: 17747, Start Num: 8
Candidate Starts for Sunfish_33:
(Start: 8 @16941 has 2 MA's), (21, 17088), (25, 17106), (39, 17199), (45, 17250), (51, 17304), (53, 17322), (62, 17376), (72, 17475),

Gene: Tangent_19 Start: 16145, Stop: 16975, Start Num: 5
Candidate Starts for Tangent_19:
(Start: 5 @16145 has 51 MA's), (Start: 8 @16154 has 2 MA's), (19, 16259), (29, 16349), (39, 16403), (41, 16427), (49, 16490), (54, 16538), (57, 16565), (60, 16586), (62, 16595), (72, 16694), (80, 16742), (83, 16799), (84, 16823), (86, 16829), (92, 16898), (95, 16910), (98, 16928), (100, 16943),

Gene: Tangerine_21 Start: 16457, Stop: 17284, Start Num: 5
Candidate Starts for Tangerine_21:
(Start: 5 @16457 has 51 MA's), (Start: 8 @16466 has 2 MA's), (19, 16568), (20, 16595), (29, 16658), (33, 16682), (49, 16799), (54, 16847), (61, 16898), (67, 16952), (72, 17003), (76, 17021), (80, 17051), (82, 17072), (83, 17108), (86, 17138), (95, 17219), (98, 17237), (100, 17252),

Gene: Tardus_23 Start: 16820, Stop: 17644, Start Num: 9
Candidate Starts for Tardus_23:
(Start: 9 @16820 has 9 MA's), (17, 16892), (39, 17075), (46, 17132), (54, 17204), (56, 17225), (67, 17306), (68, 17327), (72, 17357), (77, 17378), (80, 17405), (83, 17462), (84, 17486), (86, 17492), (88, 17513), (94, 17570), (99, 17594),

Gene: Thing3_22 Start: 17689, Stop: 18519, Start Num: 5
Candidate Starts for Thing3_22:
(Start: 5 @17689 has 51 MA's), (Start: 8 @17698 has 2 MA's), (19, 17803), (29, 17893), (39, 17947), (41, 17971), (49, 18034), (54, 18082), (57, 18109), (72, 18238), (80, 18286), (83, 18343), (84, 18367), (86, 18373), (92, 18442), (95, 18454), (98, 18472), (100, 18487),

Gene: Tiamoceli_22 Start: 16582, Stop: 17412, Start Num: 3
Candidate Starts for Tiamoceli_22:
(Start: 3 @16582 has 16 MA's), (21, 16738), (23, 16750), (35, 16828), (47, 16912), (52, 16954), (54, 16981), (67, 17083), (72, 17134), (84, 17263), (86, 17269), (88, 17290), (95, 17350), (97, 17365),

Gene: TillyBobJoe_20 Start: 13614, Stop: 14426, Start Num: 11
Candidate Starts for TillyBobJoe_20:
(Start: 11 @13614 has 32 MA's), (18, 13695), (36, 13845), (54, 13992), (58, 14028), (71, 14142), (101, 14412),

Gene: Togo_20 Start: 13830, Stop: 14642, Start Num: 11
Candidate Starts for Togo_20:
(Start: 11 @13830 has 32 MA's), (18, 13911), (36, 14061), (54, 14208), (58, 14244), (71, 14358), (101, 14628),

Gene: Twister6_22 Start: 14256, Stop: 15068, Start Num: 11
Candidate Starts for Twister6_22:
(Start: 11 @14256 has 32 MA's), (18, 14337), (36, 14487), (54, 14634), (58, 14670), (71, 14784), (101, 15054),

Gene: Twonlo_19 Start: 15199, Stop: 16029, Start Num: 3
Candidate Starts for Twonlo_19:
(Start: 3 @15199 has 16 MA's), (21, 15355), (23, 15367), (35, 15445), (42, 15490), (47, 15529), (52, 15571), (54, 15598), (67, 15700), (72, 15751), (84, 15880), (86, 15886), (88, 15907), (95, 15967), (97, 15982),

Gene: Tycho_21 Start: 16586, Stop: 17413, Start Num: 5
Candidate Starts for Tycho_21:

(Start: 5 @16586 has 51 MA's), (Start: 8 @16595 has 2 MA's), (19, 16697), (29, 16787), (49, 16928), (54, 16976), (61, 17027), (67, 17081), (72, 17132), (76, 17150), (80, 17180), (82, 17201), (83, 17237), (86, 17267), (95, 17348), (98, 17366), (100, 17381),

Gene: Valary_23 Start: 14709, Stop: 15521, Start Num: 11
Candidate Starts for Valary_23:
(Start: 11 @14709 has 32 MA's), (18, 14790), (36, 14940), (54, 15087), (58, 15123), (71, 15237), (101, 15507),

Gene: VanDeWege_23 Start: 14637, Stop: 15449, Start Num: 11
Candidate Starts for VanDeWege_23:
(Start: 11 @14637 has 32 MA's), (18, 14718), (36, 14868), (54, 15015), (58, 15051), (71, 15165), (101, 15435),

Gene: Verity_22 Start: 17000, Stop: 17824, Start Num: 9
Candidate Starts for Verity_22:
(Start: 9 @17000 has 9 MA's), (17, 17072), (39, 17255), (43, 17282), (46, 17312), (54, 17384), (56, 17405), (67, 17486), (72, 17537), (77, 17558), (80, 17585), (83, 17642), (84, 17666), (86, 17672), (87, 17687), (88, 17693), (99, 17774), (100, 17786),

Gene: ViaConlectus_23 Start: 17552, Stop: 18376, Start Num: 9
Candidate Starts for ViaConlectus_23:
(Start: 9 @17552 has 9 MA's), (17, 17624), (22, 17690), (39, 17807), (46, 17864), (54, 17936), (56, 17957), (67, 18038), (68, 18059), (72, 18089), (77, 18110), (80, 18137), (84, 18218), (86, 18224), (88, 18245), (91, 18290), (94, 18302), (99, 18326),

Gene: Vivi2_21 Start: 17307, Stop: 18137, Start Num: 5
Candidate Starts for Vivi2_21:
(Start: 5 @17307 has 51 MA's), (Start: 8 @17316 has 2 MA's), (19, 17421), (29, 17511), (39, 17565), (41, 17589), (49, 17652), (54, 17700), (57, 17727), (62, 17757), (72, 17856), (80, 17904), (83, 17961), (84, 17985), (86, 17991), (92, 18060), (95, 18072), (98, 18090), (100, 18105),

Gene: Wizard_20 Start: 13964, Stop: 14776, Start Num: 11
Candidate Starts for Wizard_20:
(Start: 11 @13964 has 32 MA's), (18, 14045), (36, 14195), (54, 14342), (58, 14378), (71, 14492), (101, 14762),

Gene: YorkOnyx_22 Start: 16855, Stop: 17682, Start Num: 5
Candidate Starts for YorkOnyx_22:
(Start: 5 @16855 has 51 MA's), (Start: 8 @16864 has 2 MA's), (19, 16966), (29, 17056), (49, 17197), (54, 17245), (61, 17296), (67, 17350), (72, 17401), (76, 17419), (80, 17449), (82, 17470), (83, 17506), (86, 17536), (95, 17617), (98, 17635), (100, 17650),

Gene: YungMoney_22 Start: 15274, Stop: 16086, Start Num: 11
Candidate Starts for YungMoney_22:
(Start: 11 @15274 has 32 MA's), (18, 15355), (36, 15505), (52, 15625), (54, 15652), (71, 15802), (81, 15856), (84, 15934), (101, 16072),

Gene: Zipp_22 Start: 17649, Stop: 18473, Start Num: 9
Candidate Starts for Zipp_22:
(Start: 9 @17649 has 9 MA's), (17, 17721), (39, 17904), (43, 17931), (46, 17961), (54, 18033), (56, 18054), (67, 18135), (72, 18186), (77, 18207), (80, 18234), (83, 18291), (84, 18315), (86, 18321), (87, 18336), (88, 18342), (99, 18423), (100, 18435),

Gene: Zitch_24 Start: 16782, Stop: 17606, Start Num: 9
Candidate Starts for Zitch_24:
(7, 16773), (Start: 9 @16782 has 9 MA's), (17, 16854), (22, 16920), (39, 17037), (46, 17094), (54, 17166), (56, 17187), (67, 17268), (68, 17289), (72, 17319), (77, 17340), (80, 17367), (84, 17448), (86, 17454), (88, 17475), (99, 17556),

Gene: phiAsp2_15 Start: 10148, Stop: 10969, Start Num: 13
Candidate Starts for phiAsp2_15:
(Start: 11 @10142 has 32 MA's), (13, 10148), (26, 10304), (28, 10319), (37, 10379), (39, 10388), (60, 10565), (65, 10601), (66, 10604), (69, 10652), (75, 10679), (93, 10883), (94, 10886),