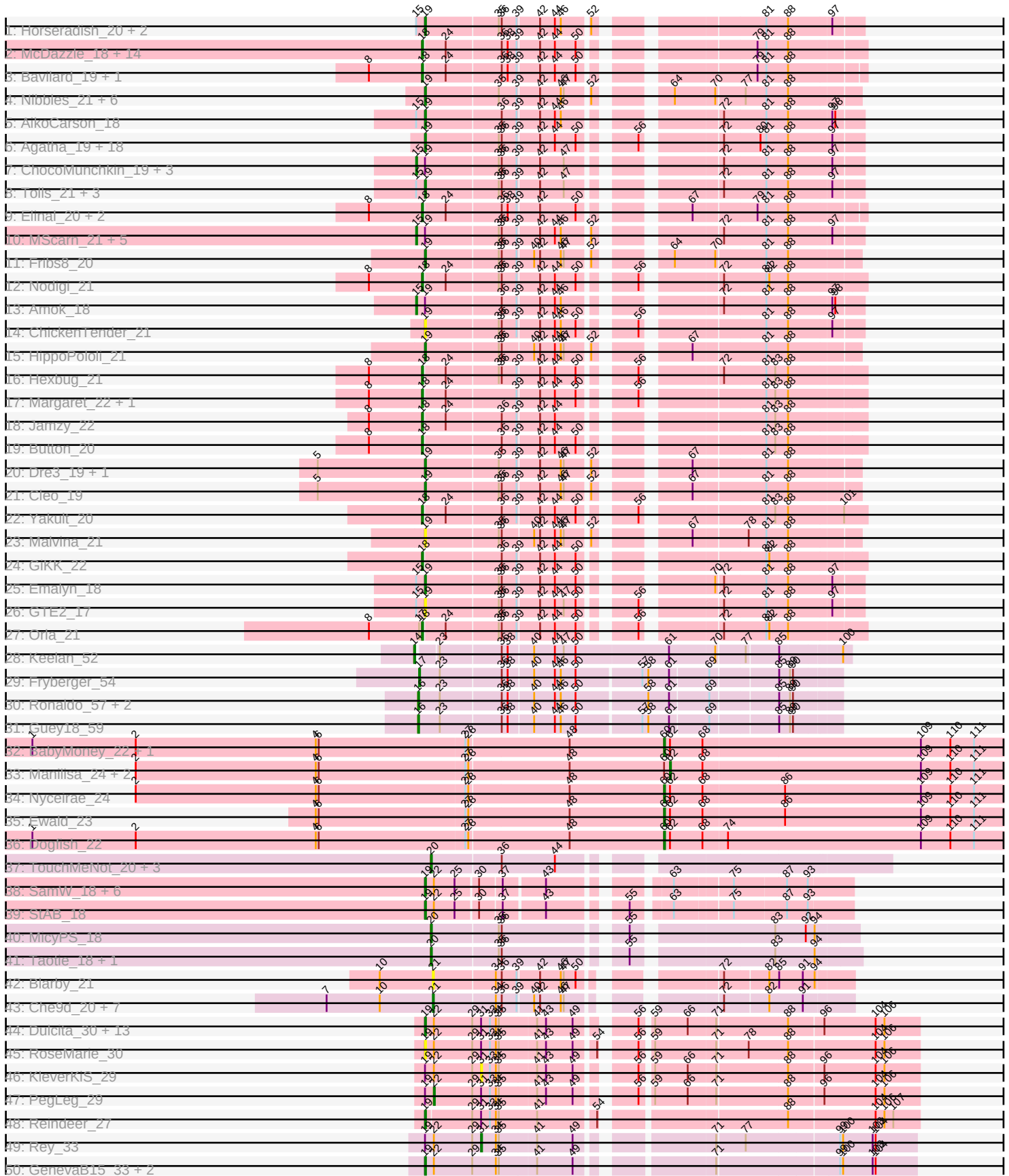
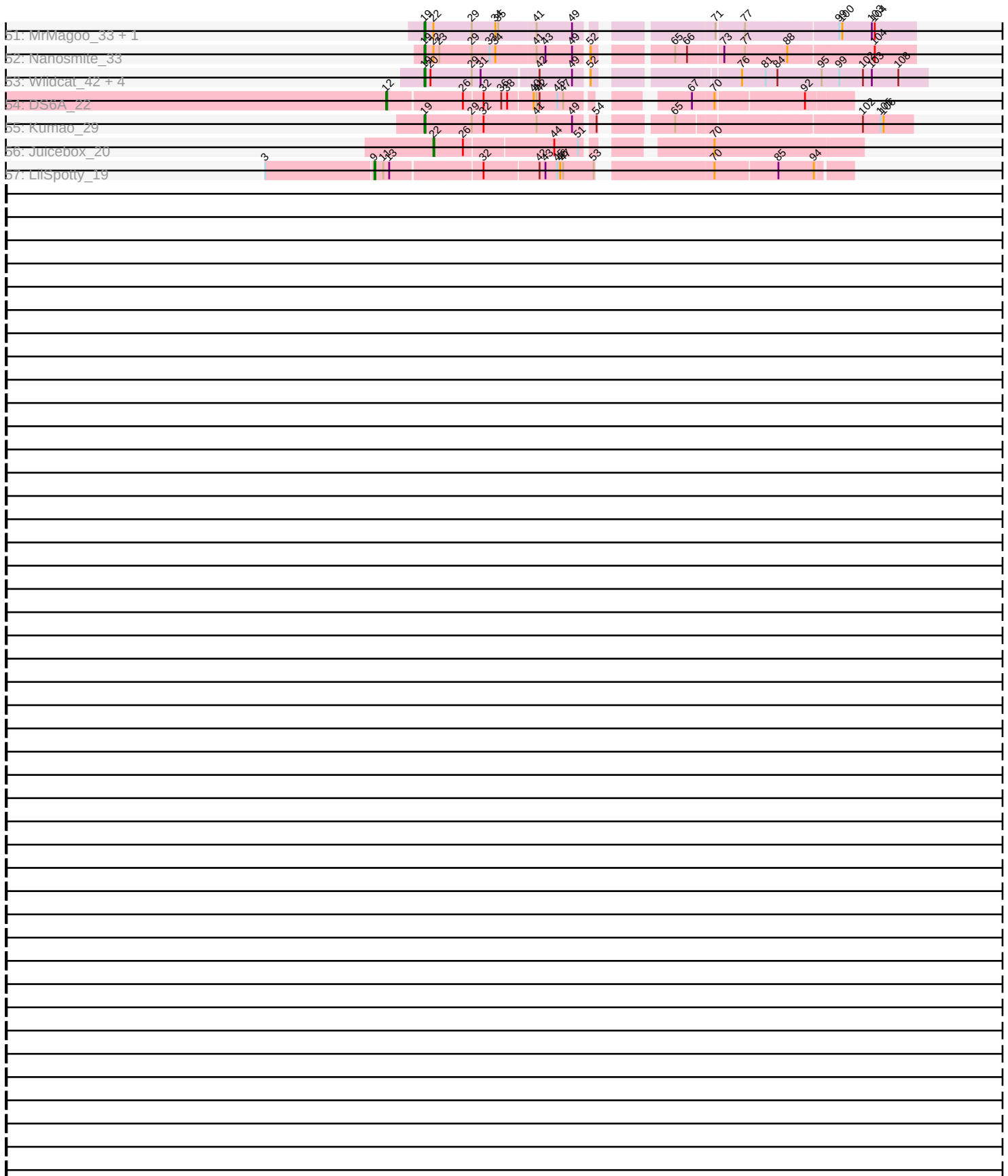


Pham 330560



Pham 330560



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 330560 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330560 has 155 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Horseradish_20, SweatNTears_21, Yummy_20
- Track 2 : McDazzle_18, Feastonyet_18, ElJefes_18, CocoaPuff_18, Vine_20, Pons_19, PotPie_19, Balloona_18, Tarnish_19, Mayweather_20, BigChungus_18, SummitAcademy_18, MAnor_19, SheckWes_18, CherryonLim_20
- Track 3 : Bavilard_19, Yucky_19
- Track 4 : Nibbles_21, Survivors_21, Wallaby_23, MaVan_21, Azira_21, Zareef_21, Wolfwood_21
- Track 5 : AikoCarson_18
- Track 6 : Agatha_19, Elliott_19, Carsonalex_20, Quasar_19, Cozz_19, Bubble_19, PsychoKiller_19, RSchmailzI_20, RADical_20, Nina_20, RedBaron_21, GoldHunter_19, MunkgeeRoachy_19, Typhonomachy_19, Sopespian_19, Socotra_20, Starburst_20, Axym_19, Burnsey_19
- Track 7 : ChocoMunchkin_19, AndPeggy_18, CanesSauce_19, CaramelLatte_19
- Track 8 : Tolls_21, BillDoor_21, SteamedHams_21, Yarn_18
- Track 9 : Elinal_20, KayGee_19, Lauer_18
- Track 10 : MScarn_21, Blondies_20, Biskit_20, SketchMex_18, Buttrmlkdreams_19, Troje_19
- Track 11 : Fribs8_20
- Track 12 : Nodigi_21
- Track 13 : Amok_18
- Track 14 : ChickenTender_21
- Track 15 : HippoPololi_21
- Track 16 : Hexbug_21
- Track 17 : Margaret_22, RanchParmCat_22
- Track 18 : Jamzy_22
- Track 19 : Button_20
- Track 20 : Dre3_19, Gibbous_19
- Track 21 : Cleo_19
- Track 22 : Yakult_20
- Track 23 : Malvina_21
- Track 24 : GiKK_22
- Track 25 : Emalyn_18
- Track 26 : GTE2_17
- Track 27 : Orla_21
- Track 28 : Keelan_52
- Track 29 : Fryberger_54
- Track 30 : Ronaldo_57, Volt_56, Ziko_57

- Track 31 : Guey18_59
- Track 32 : BabyMoney_22, Meyran_22
- Track 33 : Manilisa_24, Vordorf_23, Phishy_23
- Track 34 : Nyceirae_24
- Track 35 : Ewald_23
- Track 36 : Dogfish_22
- Track 37 : TouchMeNot_20, Poushou_20, Colleen_20, Arianna_20
- Track 38 : SamW_18, Dina_18, Lederberg_18, Troy_18, Bran_18, Stiles_18, Adelaide_18
- Track 39 : StAB_18
- Track 40 : MicyPS_18
- Track 41 : Taotie_18, PSonyx_18
- Track 42 : Blarby_21
- Track 43 : Che9d_20, Zapner_21, Avani_20, SilverChicken_20, Jabbawokkie_22, Demsculpinboyz_20, Soul22_20, Yoshi_20
- Track 44 : Dulcita_30, LilhomieP_28, Izel_30, TpudiCK_30, TyDawg_29, Auspice_29, IPhane7_29, Diminimus_30, Skinny_30, Bongo_29, Glaske16_30, SlimJimmy_28, FreakyGoo_30, Bricole_29
- Track 45 : RoseMarie_30
- Track 46 : KleverKiS_29
- Track 47 : PegLeg_29
- Track 48 : Reindeer_27
- Track 49 : Rey_33
- Track 50 : GenevaB15_33, Aziz_33, Estes_34
- Track 51 : MrMagoo_33, GardenSalsa_33
- Track 52 : Nanosmite_33
- Track 53 : Wildcat_42, MaryV_42, Cosmo_42, EniyanLRS_39, Azrael100_41
- Track 54 : DS6A_22
- Track 55 : Kumao_29
- Track 56 : Juicebox_20
- Track 57 : LilSpotty_19

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

The start number called the most often in the published annotations is 19, it was called in 68 of the 130 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adelaide_18, Agatha_19, AikoCarson_18, Auspice_29, Axym_19, Azira_21, Aziz_33, Azrael100_41, BillDoor_21, Bongo_29, Bran_18, Bricole_29, Bubble_19, Burnsey_19, Carsonalex_20, ChickenTender_21, Cleo_19, Cosmo_42, Cozz_19, Diminimus_30, Dina_18, Dre3_19, Dulcita_30, Elliott_19, Emalyn_18, EniyanLRS_39, Estes_34, FreakyGoo_30, Fribs8_20, GTE2_17, GardenSalsa_33, GenevaB15_33, Gibbous_19, Glaske16_30, GoldHunter_19, HippoPololi_21, Horseradish_20, IPhane7_29, Izel_30, Kumao_29, Lederberg_18, LilhomieP_28, MaVan_21, Malvina_21, MaryV_42, MrMagoo_33, MunkgeeRoachy_19, Nanosmite_33, Nibbles_21, Nina_20, PsychoKiller_19, Quasar_19, RADical_20, RSchmailzl_20, RedBaron_21, Reindeer_27, RoseMarie_30, SamW_18, Skinny_30, SlimJimmy_28, Socotra_20, Sopespian_19, StAB_18, Starburst_20, SteamedHams_21, Stiles_18, Survivors_21, SweatNTears_21, Tolls_21, TpudiCK_30, Troy_18, TyDawg_29,

Typhonomachy_19, Wallaby_23, Wildcat_42, Wolfwood_21, Yarn_18, Yummy_20, Zareef_21,

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

• Amok_18, AndPeggy_18, Biskit_20, Blondies_20, Buttrmlkdreams_19, CanesSauce_19, CaramellLatte_19, ChocoMunchkin_19, KleverKiS_29, MScarn_21, PegLeg_29, Rey_33, SketchMex_18, Troje_19,

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

• Arianna_20, Avani_20, BabyMoney_22, Balloona_18, Bavilard_19, BigChungus_18, Blarby_21, Button_20, Che9d_20, CherryonLim_20, CocoaPuff_18, Colleen_20, DS6A_22, Demsculpinboyz_20, Dogfish_22, ElJefes_18, Elinal_20, Ewald_23, Feastonyeet_18, Fryberger_54, GiKK_22, Guey18_59, Hexbug_21, Jabbawokkie_22, Jamzy_22, Juicebox_20, KayGee_19, Keelan_52, Lauer_18, LilSpotty_19, MAnor_19, Manilisa_24, Margaret_22, Mayweather_20, McDazzle_18, Meyran_22, MicyPS_18, Nodigi_21, Nyceirae_24, Orla_21, PSonyx_18, Phishy_23, Pons_19, PotPie_19, Poushou_20, RanchParmCat_22, Ronaldo_57, SheckWes_18, SilverChicken_20, Soul22_20, SummitAcademy_18, Taotie_18, Tarnish_19, TouchMeNot_20, Vine_20, Volt_56, Vordorf_23, Yakult_20, Yoshi_20, Yucky_19, Zapner_21, Ziko_57,

Summary by start number:

Start 9:

- Found in 1 of 155 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilSpotty_19 (singleton),

Start 12:

- Found in 1 of 155 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A_22 (singleton),

Start 14:

- Found in 1 of 155 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keelan_52 (DP),

Start 15:

- Found in 21 of 155 (13.5%) of genes in pham
- Manual Annotations of this start: 8 of 130
- Called 52.4% of time when present
- Phage (with cluster) where this start called: Amok_18 (CT), AndPeggy_18 (CT), Biskit_20 (CT), Blondies_20 (CT), Buttrmlkdreams_19 (CT), CanesSauce_19 (CT), CaramellLatte_19 (CT), ChocoMunchkin_19 (CT), MScarn_21 (CT), SketchMex_18 (CT), Troje_19 (CT),

Start 16:

- Found in 4 of 155 (2.6%) of genes in pham
- Manual Annotations of this start: 4 of 130

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Guey18_59 (DP), Ronaldo_57 (DP), Volt_56 (DP), Ziko_57 (DP),

Start 17:

- Found in 2 of 155 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Fryberger_54 (DP),

Start 18:

- Found in 29 of 155 (18.7%) of genes in pham
- Manual Annotations of this start: 25 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Balloona_18 (CT), Bavidard_19 (CT), BigChungus_18 (CT), Button_20 (CT), CherryonLim_20 (CT), CocoaPuff_18 (CT), ElJefes_18 (CT), Elinal_20 (CT), Feastonyeet_18 (CT), GiKK_22 (CT), Hexbug_21 (CT), Jamzy_22 (CT), KayGee_19 (CT), Lauer_18 (CT), Manor_19 (CT), Margaret_22 (CT), Mayweather_20 (CT), McDazzle_18 (CT), Nodigi_21 (CT), Orla_21 (CT), Pons_19 (CT), PotPie_19 (CT), RanchParmCat_22 (CT), SheckWes_18 (CT), SummitAcademy_18 (CT), Tarnish_19 (CT), Vine_20 (CT), Yakult_20 (CT), Yucky_19 (CT),

Start 19:

- Found in 93 of 155 (60.0%) of genes in pham
- Manual Annotations of this start: 68 of 130
- Called 84.9% of time when present
- Phage (with cluster) where this start called: Adelaide_18 (EP), Agatha_19 (CT), AikoCarson_18 (CT), Auspice_29 (M1), Axym_19 (CT), Azira_21 (CT), Aziz_33 (M2), Azrael100_41 (V), BillDoor_21 (CT), Bongo_29 (M1), Bran_18 (EP), Bricole_29 (M1), Bubble_19 (CT), Burnsey_19 (CT), Carsonalex_20 (CT), ChickenTender_21 (CT), Cleo_19 (CT), Cosmo_42 (V), Cozz_19 (CT), Diminimus_30 (M1), Dina_18 (EP), Dre3_19 (CT), Dulcita_30 (M1), Elliott_19 (CT), Emalyn_18 (CT), EniyanLRS_39 (V), Estes_34 (M2), FreakyGoo_30 (M1), Fribs8_20 (CT), GTE2_17 (CT), GardenSalsa_33 (M2), GenevaB15_33 (M2), Gibbous_19 (CT), Glaske16_30 (M1), GoldHunter_19 (CT), HippoPololi_21 (CT), Horseradish_20 (CT), IPhane7_29 (M1), Izel_30 (M1), Kumao_29 (singleton), Lederberg_18 (EP), LilhomieP_28 (M1), MaVan_21 (CT), Malvina_21 (CT), MaryV_42 (V), MrMagoo_33 (M2), MunkgeeRoachy_19 (CT), Nanosmite_33 (M3), Nibbles_21 (CT), Nina_20 (CT), PsychoKiller_19 (CT), Quasar_19 (CT), RADical_20 (CT), RSchmailzl_20 (CT), RedBaron_21 (CT), Reindeer_27 (M1), RoseMarie_30 (M1), SamW_18 (EP), Skinny_30 (M1), SlimJimmy_28 (M1), Socotra_20 (CT), Sopespian_19 (CT), StAB_18 (EP), Starburst_20 (CT), SteamedHams_21 (CT), Stiles_18 (EP), Survivors_21 (CT), SweatNTears_21 (CT), Tolls_21 (CT), TpudiCK_30 (M1), Troy_18 (EP), TyDawg_29 (M1), Typhonmacy_19 (CT), Wallaby_23 (CT), Wildcat_42 (V), Wolfwood_21 (CT), Yarn_18 (CT), Yummy_20 (CT), Zareef_21 (CT),

Start 20:

- Found in 12 of 155 (7.7%) of genes in pham
- Manual Annotations of this start: 6 of 130
- Called 58.3% of time when present
- Phage (with cluster) where this start called: Arianna_20 (EO), Colleen_20 (EO), MicyPS_18 (EQ), PSonyx_18 (EQ), Poushou_20 (EO), Taotie_18 (EQ),

TouchMeNot_20 (EO),

Start 21:

- Found in 9 of 155 (5.8%) of genes in pham
- Manual Annotations of this start: 7 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Avani_20 (F2), Blarby_21 (F), Che9d_20 (F2), Demsculpinboyz_20 (F2), Jabbawokkie_22 (F2), SilverChicken_20 (F2), Soul22_20 (F2), Yoshi_20 (F2), Zapner_21 (F2),

Start 22:

- Found in 33 of 155 (21.3%) of genes in pham
- Manual Annotations of this start: 2 of 130
- Called 6.1% of time when present
- Phage (with cluster) where this start called: Juicebox_20 (singleton), PegLeg_29 (M1),

Start 31:

- Found in 24 of 155 (15.5%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 8.3% of time when present
- Phage (with cluster) where this start called: KleverKiS_29 (M1), Rey_33 (M2),

Start 60:

- Found in 8 of 155 (5.2%) of genes in pham
- Manual Annotations of this start: 4 of 130
- Called 62.5% of time when present
- Phage (with cluster) where this start called: BabyMoney_22 (DT), Dogfish_22 (DT), Ewald_23 (DT), Meyran_22 (DT), Nyceirae_24 (DT),

Start 62:

- Found in 8 of 155 (5.2%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Manilisa_24 (DT), Phishy_23 (DT), Vordorf_23 (DT),

Summary by clusters:

There are 13 clusters represented in this pham: singleton, F, M2, F2, M1, M3, V, EO, DT, EQ, EP, DP, CT,

Info for manual annotations of cluster CT:

- Start number 15 was manually annotated 8 times for cluster CT.
- Start number 18 was manually annotated 25 times for cluster CT.
- Start number 19 was manually annotated 34 times for cluster CT.

Info for manual annotations of cluster DP:

- Start number 14 was manually annotated 1 time for cluster DP.
- Start number 16 was manually annotated 4 times for cluster DP.
- Start number 17 was manually annotated 1 time for cluster DP.

Info for manual annotations of cluster DT:

- Start number 60 was manually annotated 4 times for cluster DT.
- Start number 62 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster EO:

- Start number 20 was manually annotated 4 times for cluster EO.

Info for manual annotations of cluster EP:

- Start number 19 was manually annotated 8 times for cluster EP.

Info for manual annotations of cluster EQ:

- Start number 20 was manually annotated 2 times for cluster EQ.

Info for manual annotations of cluster F2:

- Start number 21 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster M1:

- Start number 19 was manually annotated 14 times for cluster M1.
- Start number 22 was manually annotated 1 time for cluster M1.

Info for manual annotations of cluster M2:

- Start number 19 was manually annotated 5 times for cluster M2.
- Start number 31 was manually annotated 1 time for cluster M2.

Info for manual annotations of cluster M3:

- Start number 19 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 19 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Adelaide_18 Start: 18016, Stop: 18393, Start Num: 19

Candidate Starts for Adelaide_18:

(Start: 19 @18016 has 68 MA's), (Start: 22 @18025 has 2 MA's), (25, 18046), (30, 18067), (37, 18088), (43, 18127), (63, 18223), (75, 18277), (87, 18328), (93, 18349),

Gene: Agatha_19 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for Agatha_19:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: AikoCarson_18 Start: 16751, Stop: 17140, Start Num: 19

Candidate Starts for AikoCarson_18:

(Start: 15 @16742 has 8 MA's), (Start: 19 @16751 has 68 MA's), (36, 16826), (39, 16841), (42, 16862), (44, 16877), (46, 16883), (72, 17006), (81, 17048), (88, 17069), (97, 17111), (98, 17114),

Gene: Amok_18 Start: 16739, Stop: 17137, Start Num: 15

Candidate Starts for Amok_18:

(Start: 15 @16739 has 8 MA's), (Start: 19 @16748 has 68 MA's), (36, 16823), (39, 16838), (42, 16859), (44, 16874), (46, 16880), (72, 17003), (81, 17045), (88, 17066), (97, 17108), (98, 17111),

Gene: AndPeggy_18 Start: 17105, Stop: 17503, Start Num: 15

Candidate Starts for AndPeggy_18:

(Start: 15 @17105 has 8 MA's), (Start: 19 @17114 has 68 MA's), (35, 17186), (36, 17189), (39, 17204), (42, 17225), (47, 17249), (72, 17369), (81, 17411), (88, 17432), (97, 17474),

Gene: Arianna_20 Start: 19090, Stop: 19509, Start Num: 20

Candidate Starts for Arianna_20:

(Start: 20 @19090 has 6 MA's), (36, 19159), (44, 19213),

Gene: Auspice_29 Start: 24158, Stop: 24616, Start Num: 19

Candidate Starts for Auspice_29:

(Start: 19 @24158 has 68 MA's), (Start: 22 @24167 has 2 MA's), (29, 24206), (Start: 31 @24215 has 1 MA's), (33, 24224), (34, 24230), (35, 24233), (41, 24269), (43, 24278), (49, 24305), (56, 24350), (59, 24359), (66, 24392), (71, 24419), (88, 24488), (96, 24521), (104, 24572), (106, 24581),

Gene: Avani_20 Start: 15408, Stop: 15773, Start Num: 21

Candidate Starts for Avani_20:

(7, 15300), (10, 15354), (Start: 21 @15408 has 7 MA's), (34, 15468), (36, 15474), (39, 15489), (40, 15504), (42, 15510), (46, 15531), (47, 15534), (72, 15651), (82, 15693), (91, 15726),

Gene: Axym_19 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for Axym_19:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: Azira_21 Start: 18423, Stop: 18809, Start Num: 19

Candidate Starts for Azira_21:

(Start: 19 @18423 has 68 MA's), (35, 18495), (39, 18513), (42, 18534), (46, 18555), (47, 18558), (52, 18579), (64, 18633), (70, 18672), (77, 18699), (81, 18720), (88, 18741),

Gene: Aziz_33 Start: 24749, Stop: 25204, Start Num: 19

Candidate Starts for Aziz_33:

(Start: 19 @24749 has 68 MA's), (Start: 22 @24758 has 2 MA's), (29, 24797), (34, 24821), (35, 24824), (41, 24860), (49, 24896), (71, 25010), (99, 25127), (100, 25130), (103, 25160), (104, 25163),

Gene: Azrael100_41 Start: 27872, Stop: 28339, Start Num: 19

Candidate Starts for Azrael100_41:

(Start: 19 @27872 has 68 MA's), (Start: 20 @27878 has 6 MA's), (29, 27920), (Start: 31 @27929 has 1 MA's), (42, 27983), (49, 28016), (52, 28028), (76, 28151), (81, 28175), (84, 28187), (95, 28232), (99, 28250), (102, 28274), (103, 28283), (108, 28310),

Gene: BabyMoney_22 Start: 19654, Stop: 20046, Start Num: 60

Candidate Starts for BabyMoney_22:

(1, 19018), (2, 19123), (4, 19306), (6, 19309), (27, 19456), (28, 19459), (48, 19558), (Start: 60 @19654 has 4 MA's), (Start: 62 @19660 has 1 MA's), (68, 19693), (109, 19912), (110, 19942), (111, 19966),

Gene: Balloona_18 Start: 17116, Stop: 17508, Start Num: 18

Candidate Starts for Balloona_18:

(Start: 18 @17116 has 25 MA's), (24, 17137), (36, 17191), (38, 17197), (39, 17206), (42, 17227), (44, 17242), (50, 17263), (79, 17404), (81, 17413), (88, 17434),

Gene: Bavidard_19 Start: 17901, Stop: 18290, Start Num: 18

Candidate Starts for Bavilard_19:

(8, 17847), (Start: 18 @17901 has 25 MA's), (24, 17922), (36, 17976), (38, 17982), (39, 17991), (42, 18012), (44, 18027), (50, 18048), (79, 18189), (81, 18198), (88, 18219),

Gene: BigChungus_18 Start: 17156, Stop: 17548, Start Num: 18

Candidate Starts for BigChungus_18:

(Start: 18 @17156 has 25 MA's), (24, 17177), (36, 17231), (38, 17237), (39, 17246), (42, 17267), (44, 17282), (50, 17303), (79, 17444), (81, 17453), (88, 17474),

Gene: BillDoor_21 Start: 17082, Stop: 17471, Start Num: 19

Candidate Starts for BillDoor_21:

(Start: 15 @17073 has 8 MA's), (Start: 19 @17082 has 68 MA's), (35, 17154), (36, 17157), (39, 17172), (42, 17193), (47, 17217), (72, 17337), (81, 17379), (88, 17400), (97, 17442),

Gene: Biskit_20 Start: 17088, Stop: 17486, Start Num: 15

Candidate Starts for Biskit_20:

(Start: 15 @17088 has 8 MA's), (Start: 19 @17097 has 68 MA's), (35, 17169), (36, 17172), (39, 17187), (42, 17208), (44, 17223), (46, 17229), (52, 17253), (72, 17352), (81, 17394), (88, 17415), (97, 17457),

Gene: Blarby_21 Start: 15928, Stop: 16293, Start Num: 21

Candidate Starts for Blarby_21:

(10, 15874), (Start: 21 @15928 has 7 MA's), (34, 15988), (36, 15994), (39, 16009), (42, 16030), (46, 16051), (47, 16054), (50, 16066), (72, 16171), (82, 16213), (85, 16222), (91, 16246), (94, 16258),

Gene: Blondies_20 Start: 17071, Stop: 17469, Start Num: 15

Candidate Starts for Blondies_20:

(Start: 15 @17071 has 8 MA's), (Start: 19 @17080 has 68 MA's), (35, 17152), (36, 17155), (39, 17170), (42, 17191), (44, 17206), (46, 17212), (52, 17236), (72, 17335), (81, 17377), (88, 17398), (97, 17440),

Gene: Bongo_29 Start: 24158, Stop: 24616, Start Num: 19

Candidate Starts for Bongo_29:

(Start: 19 @24158 has 68 MA's), (Start: 22 @24167 has 2 MA's), (29, 24206), (Start: 31 @24215 has 1 MA's), (33, 24224), (34, 24230), (35, 24233), (41, 24269), (43, 24278), (49, 24305), (56, 24350), (59, 24359), (66, 24392), (71, 24419), (88, 24488), (96, 24521), (104, 24572), (106, 24581),

Gene: Bran_18 Start: 18021, Stop: 18398, Start Num: 19

Candidate Starts for Bran_18:

(Start: 19 @18021 has 68 MA's), (Start: 22 @18030 has 2 MA's), (25, 18051), (30, 18072), (37, 18093), (43, 18132), (63, 18228), (75, 18282), (87, 18333), (93, 18354),

Gene: Bricole_29 Start: 24144, Stop: 24602, Start Num: 19

Candidate Starts for Bricole_29:

(Start: 19 @24144 has 68 MA's), (Start: 22 @24153 has 2 MA's), (29, 24192), (Start: 31 @24201 has 1 MA's), (33, 24210), (34, 24216), (35, 24219), (41, 24255), (43, 24264), (49, 24291), (56, 24336), (59, 24345), (66, 24378), (71, 24405), (88, 24474), (96, 24507), (104, 24558), (106, 24567),

Gene: Bubble_19 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for Bubble_19:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: Burnsey_19 Start: 17443, Stop: 17832, Start Num: 19

Candidate Starts for Burnsey_19:

(Start: 19 @17443 has 68 MA's), (35, 17515), (36, 17518), (39, 17533), (42, 17554), (44, 17569), (50, 17590), (56, 17632), (72, 17698), (80, 17734), (81, 17740), (88, 17761), (97, 17803),

Gene: Button_20 Start: 16475, Stop: 16867, Start Num: 18

Candidate Starts for Button_20:

(8, 16421), (Start: 18 @16475 has 25 MA's), (36, 16550), (39, 16565), (42, 16586), (44, 16601), (50, 16622), (81, 16772), (83, 16781), (88, 16793),

Gene: Buttrmlkdreams_19 Start: 17070, Stop: 17468, Start Num: 15

Candidate Starts for Buttrmlkdreams_19:

(Start: 15 @17070 has 8 MA's), (Start: 19 @17079 has 68 MA's), (35, 17151), (36, 17154), (39, 17169), (42, 17190), (44, 17205), (46, 17211), (52, 17235), (72, 17334), (81, 17376), (88, 17397), (97, 17439),

Gene: CanesSauce_19 Start: 17106, Stop: 17504, Start Num: 15

Candidate Starts for CanesSauce_19:

(Start: 15 @17106 has 8 MA's), (Start: 19 @17115 has 68 MA's), (35, 17187), (36, 17190), (39, 17205), (42, 17226), (47, 17250), (72, 17370), (81, 17412), (88, 17433), (97, 17475),

Gene: CaramellLatte_19 Start: 17106, Stop: 17504, Start Num: 15

Candidate Starts for CaramellLatte_19:

(Start: 15 @17106 has 8 MA's), (Start: 19 @17115 has 68 MA's), (35, 17187), (36, 17190), (39, 17205), (42, 17226), (47, 17250), (72, 17370), (81, 17412), (88, 17433), (97, 17475),

Gene: Carsonalex_20 Start: 17500, Stop: 17889, Start Num: 19

Candidate Starts for Carsonalex_20:

(Start: 19 @17500 has 68 MA's), (35, 17572), (36, 17575), (39, 17590), (42, 17611), (44, 17626), (50, 17647), (56, 17689), (72, 17755), (80, 17791), (81, 17797), (88, 17818), (97, 17860),

Gene: Che9d_20 Start: 15416, Stop: 15781, Start Num: 21

Candidate Starts for Che9d_20:

(7, 15308), (10, 15362), (Start: 21 @15416 has 7 MA's), (34, 15476), (36, 15482), (39, 15497), (40, 15512), (42, 15518), (46, 15539), (47, 15542), (72, 15659), (82, 15701), (91, 15734),

Gene: CherryonLim_20 Start: 17865, Stop: 18257, Start Num: 18

Candidate Starts for CherryonLim_20:

(Start: 18 @17865 has 25 MA's), (24, 17886), (36, 17940), (38, 17946), (39, 17955), (42, 17976), (44, 17991), (50, 18012), (79, 18153), (81, 18162), (88, 18183),

Gene: ChickenTender_21 Start: 17507, Stop: 17896, Start Num: 19

Candidate Starts for ChickenTender_21:

(Start: 19 @17507 has 68 MA's), (35, 17579), (36, 17582), (39, 17597), (42, 17618), (44, 17633), (46, 17639), (50, 17654), (56, 17696), (81, 17804), (88, 17825), (97, 17867),

Gene: ChocoMunchkin_19 Start: 17106, Stop: 17504, Start Num: 15

Candidate Starts for ChocoMunchkin_19:

(Start: 15 @17106 has 8 MA's), (Start: 19 @17115 has 68 MA's), (35, 17187), (36, 17190), (39, 17205), (42, 17226), (47, 17250), (72, 17370), (81, 17412), (88, 17433), (97, 17475),

Gene: Cleo_19 Start: 17736, Stop: 18122, Start Num: 19

Candidate Starts for Cleo_19:

(5, 17628), (Start: 19 @17736 has 68 MA's), (35, 17808), (36, 17811), (39, 17826), (42, 17847), (46, 17868), (47, 17871), (52, 17892), (67, 17964), (81, 18033), (88, 18054),

Gene: CocoaPuff_18 Start: 17110, Stop: 17502, Start Num: 18

Candidate Starts for CocoaPuff_18:

(Start: 18 @17110 has 25 MA's), (24, 17131), (36, 17185), (38, 17191), (39, 17200), (42, 17221), (44, 17236), (50, 17257), (79, 17398), (81, 17407), (88, 17428),

Gene: Colleen_20 Start: 19090, Stop: 19509, Start Num: 20

Candidate Starts for Colleen_20:

(Start: 20 @19090 has 6 MA's), (36, 19159), (44, 19213),

Gene: Cosmo_42 Start: 27879, Stop: 28346, Start Num: 19

Candidate Starts for Cosmo_42:

(Start: 19 @27879 has 68 MA's), (Start: 20 @27885 has 6 MA's), (29, 27927), (Start: 31 @27936 has 1 MA's), (42, 27990), (49, 28023), (52, 28035), (76, 28158), (81, 28182), (84, 28194), (95, 28239), (99, 28257), (102, 28281), (103, 28290), (108, 28317),

Gene: Cozz_19 Start: 17443, Stop: 17832, Start Num: 19

Candidate Starts for Cozz_19:

(Start: 19 @17443 has 68 MA's), (35, 17515), (36, 17518), (39, 17533), (42, 17554), (44, 17569), (50, 17590), (56, 17632), (72, 17698), (80, 17734), (81, 17740), (88, 17761), (97, 17803),

Gene: DS6A_22 Start: 18715, Stop: 19122, Start Num: 12

Candidate Starts for DS6A_22:

(Start: 12 @18715 has 1 MA's), (26, 18787), (32, 18805), (36, 18823), (38, 18829), (40, 18853), (41, 18856), (42, 18859), (45, 18877), (47, 18883), (67, 18973), (70, 18994), (92, 19078),

Gene: Demsculpinboyz_20 Start: 15401, Stop: 15766, Start Num: 21

Candidate Starts for Demsculpinboyz_20:

(7, 15293), (10, 15347), (Start: 21 @15401 has 7 MA's), (34, 15461), (36, 15467), (39, 15482), (40, 15497), (42, 15503), (46, 15524), (47, 15527), (72, 15644), (82, 15686), (91, 15719),

Gene: Diminimus_30 Start: 24157, Stop: 24615, Start Num: 19

Candidate Starts for Diminimus_30:

(Start: 19 @24157 has 68 MA's), (Start: 22 @24166 has 2 MA's), (29, 24205), (Start: 31 @24214 has 1 MA's), (33, 24223), (34, 24229), (35, 24232), (41, 24268), (43, 24277), (49, 24304), (56, 24349), (59, 24358), (66, 24391), (71, 24418), (88, 24487), (96, 24520), (104, 24571), (106, 24580),

Gene: Dina_18 Start: 17984, Stop: 18361, Start Num: 19

Candidate Starts for Dina_18:

(Start: 19 @17984 has 68 MA's), (Start: 22 @17993 has 2 MA's), (25, 18014), (30, 18035), (37, 18056), (43, 18095), (63, 18191), (75, 18245), (87, 18296), (93, 18317),

Gene: Dogfish_22 Start: 19828, Stop: 20220, Start Num: 60

Candidate Starts for Dogfish_22:

(1, 19192), (2, 19297), (4, 19480), (6, 19483), (27, 19630), (28, 19633), (48, 19732), (Start: 60 @19828 has 4 MA's), (Start: 62 @19834 has 1 MA's), (68, 19867), (74, 19891), (109, 20086), (110, 20116), (111, 20140),

Gene: Dre3_19 Start: 17683, Stop: 18069, Start Num: 19

Candidate Starts for Dre3_19:

(5, 17575), (Start: 19 @17683 has 68 MA's), (35, 17755), (39, 17773), (42, 17794), (46, 17815), (47, 17818), (52, 17839), (67, 17911), (81, 17980), (88, 18001),

Gene: Dulcita_30 Start: 24157, Stop: 24615, Start Num: 19

Candidate Starts for Dulcita_30:

(Start: 19 @24157 has 68 MA's), (Start: 22 @24166 has 2 MA's), (29, 24205), (Start: 31 @24214 has 1 MA's), (33, 24223), (34, 24229), (35, 24232), (41, 24268), (43, 24277), (49, 24304), (56, 24349), (59, 24358), (66, 24391), (71, 24418), (88, 24487), (96, 24520), (104, 24571), (106, 24580),

Gene: ElJefes_18 Start: 17588, Stop: 17980, Start Num: 18

Candidate Starts for ElJefes_18:

(Start: 18 @17588 has 25 MA's), (24, 17609), (36, 17663), (38, 17669), (39, 17678), (42, 17699), (44, 17714), (50, 17735), (79, 17876), (81, 17885), (88, 17906),

Gene: Elinal_20 Start: 17112, Stop: 17501, Start Num: 18

Candidate Starts for Elinal_20:

(8, 17058), (Start: 18 @17112 has 25 MA's), (24, 17133), (36, 17187), (38, 17193), (39, 17202), (42, 17223), (50, 17259), (67, 17340), (79, 17400), (81, 17409), (88, 17430),

Gene: Eliott_19 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for Eliott_19:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: Emalyn_18 Start: 16747, Stop: 17136, Start Num: 19

Candidate Starts for Emalyn_18:

(Start: 15 @16738 has 8 MA's), (Start: 19 @16747 has 68 MA's), (35, 16819), (36, 16822), (39, 16837), (42, 16858), (44, 16873), (50, 16894), (70, 16996), (72, 17002), (81, 17044), (88, 17065), (97, 17107),

Gene: EniyanLRS_39 Start: 27577, Stop: 28044, Start Num: 19

Candidate Starts for EniyanLRS_39:

(Start: 19 @27577 has 68 MA's), (Start: 20 @27583 has 6 MA's), (29, 27625), (Start: 31 @27634 has 1 MA's), (42, 27688), (49, 27721), (52, 27733), (76, 27856), (81, 27880), (84, 27892), (95, 27937), (99, 27955), (102, 27979), (103, 27988), (108, 28015),

Gene: Estes_34 Start: 24880, Stop: 25335, Start Num: 19

Candidate Starts for Estes_34:

(Start: 19 @24880 has 68 MA's), (Start: 22 @24889 has 2 MA's), (29, 24928), (34, 24952), (35, 24955), (41, 24991), (49, 25027), (71, 25141), (99, 25258), (100, 25261), (103, 25291), (104, 25294),

Gene: Ewald_23 Start: 20101, Stop: 20496, Start Num: 60

Candidate Starts for Ewald_23:

(4, 19753), (6, 19756), (27, 19903), (28, 19906), (48, 20005), (Start: 60 @20101 has 4 MA's), (Start: 62 @20107 has 1 MA's), (68, 20140), (86, 20221), (109, 20359), (110, 20389), (111, 20413),

Gene: Feastonyeet_18 Start: 17156, Stop: 17548, Start Num: 18

Candidate Starts for Feastonyeet_18:

(Start: 18 @17156 has 25 MA's), (24, 17177), (36, 17231), (38, 17237), (39, 17246), (42, 17267), (44, 17282), (50, 17303), (79, 17444), (81, 17453), (88, 17474),

Gene: FreakyGoo_30 Start: 24158, Stop: 24616, Start Num: 19

Candidate Starts for FreakyGoo_30:

(Start: 19 @24158 has 68 MA's), (Start: 22 @24167 has 2 MA's), (29, 24206), (Start: 31 @24215 has 1 MA's), (33, 24224), (34, 24230), (35, 24233), (41, 24269), (43, 24278), (49, 24305), (56, 24350), (59, 24359), (66, 24392), (71, 24419), (88, 24488), (96, 24521), (104, 24572), (106, 24581),

Gene: Fribs8_20 Start: 18267, Stop: 18653, Start Num: 19

Candidate Starts for Fribs8_20:

(Start: 19 @18267 has 68 MA's), (35, 18339), (36, 18342), (39, 18357), (40, 18372), (42, 18378), (46, 18399), (47, 18402), (52, 18423), (64, 18477), (70, 18516), (81, 18564), (88, 18585),

Gene: Fryberger_54 Start: 29656, Stop: 30054, Start Num: 17

Candidate Starts for Fryberger_54:

(Start: 17 @29656 has 1 MA's), (23, 29677), (36, 29737), (38, 29743), (40, 29767), (44, 29788), (46, 29794), (50, 29809), (57, 29872), (58, 29878), (61, 29899), (69, 29935), (85, 29998), (89, 30007), (90, 30010),

Gene: GTE2_17 Start: 16788, Stop: 17177, Start Num: 19

Candidate Starts for GTE2_17:

(Start: 15 @16779 has 8 MA's), (Start: 19 @16788 has 68 MA's), (35, 16860), (36, 16863), (39, 16878), (42, 16899), (44, 16914), (47, 16923), (50, 16935), (56, 16977), (72, 17043), (81, 17085), (88, 17106), (97, 17148),

Gene: GardenSalsa_33 Start: 24704, Stop: 25159, Start Num: 19

Candidate Starts for GardenSalsa_33:

(Start: 19 @24704 has 68 MA's), (Start: 22 @24713 has 2 MA's), (29, 24752), (34, 24776), (35, 24779), (41, 24815), (49, 24851), (71, 24965), (77, 24992), (99, 25082), (100, 25085), (103, 25115), (104, 25118),

Gene: GenevaB15_33 Start: 24749, Stop: 25204, Start Num: 19

Candidate Starts for GenevaB15_33:

(Start: 19 @24749 has 68 MA's), (Start: 22 @24758 has 2 MA's), (29, 24797), (34, 24821), (35, 24824), (41, 24860), (49, 24896), (71, 25010), (99, 25127), (100, 25130), (103, 25160), (104, 25163),

Gene: GiKK_22 Start: 16778, Stop: 17170, Start Num: 18

Candidate Starts for GiKK_22:

(Start: 18 @16778 has 25 MA's), (36, 16853), (39, 16868), (42, 16889), (44, 16904), (50, 16925), (81, 17075), (82, 17078), (88, 17096),

Gene: Gibbous_19 Start: 17683, Stop: 18069, Start Num: 19

Candidate Starts for Gibbous_19:

(5, 17575), (Start: 19 @17683 has 68 MA's), (35, 17755), (39, 17773), (42, 17794), (46, 17815), (47, 17818), (52, 17839), (67, 17911), (81, 17980), (88, 18001),

Gene: Glaske16_30 Start: 24157, Stop: 24615, Start Num: 19

Candidate Starts for Glaske16_30:

(Start: 19 @24157 has 68 MA's), (Start: 22 @24166 has 2 MA's), (29, 24205), (Start: 31 @24214 has 1 MA's), (33, 24223), (34, 24229), (35, 24232), (41, 24268), (43, 24277), (49, 24304), (56, 24349), (59, 24358), (66, 24391), (71, 24418), (88, 24487), (96, 24520), (104, 24571), (106, 24580),

Gene: GoldHunter_19 Start: 17443, Stop: 17832, Start Num: 19

Candidate Starts for GoldHunter_19:

(Start: 19 @17443 has 68 MA's), (35, 17515), (36, 17518), (39, 17533), (42, 17554), (44, 17569), (50, 17590), (56, 17632), (72, 17698), (80, 17734), (81, 17740), (88, 17761), (97, 17803),

Gene: Guey18_59 Start: 30848, Stop: 31246, Start Num: 16

Candidate Starts for Guey18_59:

(Start: 16 @30848 has 4 MA's), (23, 30869), (36, 30929), (38, 30935), (40, 30959), (44, 30980), (46, 30986), (50, 31001), (57, 31064), (58, 31070), (61, 31091), (69, 31127), (85, 31190), (89, 31199), (90, 31202),

Gene: Hexbug_21 Start: 17464, Stop: 17856, Start Num: 18

Candidate Starts for Hexbug_21:

(8, 17410), (Start: 18 @17464 has 25 MA's), (24, 17485), (35, 17536), (36, 17539), (39, 17554), (42, 17575), (44, 17590), (50, 17611), (56, 17653), (72, 17719), (81, 17761), (83, 17770), (88, 17782),

Gene: HippoPololi_21 Start: 18335, Stop: 18721, Start Num: 19

Candidate Starts for HippoPololi_21:

(Start: 19 @18335 has 68 MA's), (35, 18407), (36, 18410), (40, 18440), (42, 18446), (44, 18461), (46, 18467), (47, 18470), (52, 18491), (67, 18563), (81, 18632), (88, 18653),

Gene: Horseradish_20 Start: 16993, Stop: 17382, Start Num: 19

Candidate Starts for Horseradish_20:

(Start: 15 @16984 has 8 MA's), (Start: 19 @16993 has 68 MA's), (35, 17065), (36, 17068), (39, 17083), (42, 17104), (44, 17119), (46, 17125), (52, 17149), (81, 17290), (88, 17311), (97, 17353),

Gene: IPHane7_29 Start: 24158, Stop: 24616, Start Num: 19

Candidate Starts for IPHane7_29:

(Start: 19 @24158 has 68 MA's), (Start: 22 @24167 has 2 MA's), (29, 24206), (Start: 31 @24215 has 1 MA's), (33, 24224), (34, 24230), (35, 24233), (41, 24269), (43, 24278), (49, 24305), (56, 24350), (59, 24359), (66, 24392), (71, 24419), (88, 24488), (96, 24521), (104, 24572), (106, 24581),

Gene: Izel_30 Start: 24157, Stop: 24615, Start Num: 19

Candidate Starts for Izel_30:

(Start: 19 @24157 has 68 MA's), (Start: 22 @24166 has 2 MA's), (29, 24205), (Start: 31 @24214 has 1 MA's), (33, 24223), (34, 24229), (35, 24232), (41, 24268), (43, 24277), (49, 24304), (56, 24349), (59, 24358), (66, 24391), (71, 24418), (88, 24487), (96, 24520), (104, 24571), (106, 24580),

Gene: Jabbawokkie_22 Start: 15931, Stop: 16296, Start Num: 21

Candidate Starts for Jabbawokkie_22:

(7, 15823), (10, 15877), (Start: 21 @15931 has 7 MA's), (34, 15991), (36, 15997), (39, 16012), (40, 16027), (42, 16033), (46, 16054), (47, 16057), (72, 16174), (82, 16216), (91, 16249),

Gene: Jamzy_22 Start: 16788, Stop: 17180, Start Num: 18

Candidate Starts for Jamzy_22:

(8, 16734), (Start: 18 @16788 has 25 MA's), (24, 16809), (36, 16863), (39, 16878), (42, 16899), (44, 16914), (81, 17085), (83, 17094), (88, 17106),

Gene: Juicebox_20 Start: 19400, Stop: 19786, Start Num: 22

Candidate Starts for Juicebox_20:

(Start: 22 @19400 has 2 MA's), (26, 19430), (44, 19517), (51, 19541), (70, 19640),

Gene: KayGee_19 Start: 17112, Stop: 17501, Start Num: 18

Candidate Starts for KayGee_19:

(8, 17058), (Start: 18 @17112 has 25 MA's), (24, 17133), (36, 17187), (38, 17193), (39, 17202), (42, 17223), (50, 17259), (67, 17340), (79, 17400), (81, 17409), (88, 17430),

Gene: Keelan_52 Start: 29645, Stop: 30055, Start Num: 14

Candidate Starts for Keelan_52:

(Start: 14 @29645 has 1 MA's), (23, 29663), (36, 29723), (38, 29729), (40, 29753), (44, 29774), (47, 29783), (50, 29795), (61, 29888), (70, 29933), (77, 29960), (85, 29990), (100, 30047),

Gene: KleverKiS_29 Start: 24198, Stop: 24599, Start Num: 31

Candidate Starts for KleverKiS_29:

(Start: 19 @24141 has 68 MA's), (Start: 22 @24150 has 2 MA's), (29, 24189), (Start: 31 @24198 has 1 MA's), (33, 24207), (34, 24213), (35, 24216), (41, 24252), (43, 24261), (49, 24288), (56, 24333), (59, 24342), (66, 24375), (71, 24402), (88, 24471), (96, 24504), (104, 24555), (106, 24564),

Gene: Kumao_29 Start: 23245, Stop: 23697, Start Num: 19

Candidate Starts for Kumao_29:

(Start: 19 @23245 has 68 MA's), (29, 23293), (32, 23305), (41, 23359), (49, 23395), (54, 23413), (65, 23470), (102, 23647), (105, 23665), (106, 23668),

Gene: Lauer_18 Start: 17161, Stop: 17550, Start Num: 18

Candidate Starts for Lauer_18:

(8, 17107), (Start: 18 @17161 has 25 MA's), (24, 17182), (36, 17236), (38, 17242), (39, 17251), (42, 17272), (50, 17308), (67, 17389), (79, 17449), (81, 17458), (88, 17479),

Gene: Lederberg_18 Start: 18003, Stop: 18380, Start Num: 19

Candidate Starts for Lederberg_18:

(Start: 19 @18003 has 68 MA's), (Start: 22 @18012 has 2 MA's), (25, 18033), (30, 18054), (37, 18075), (43, 18114), (63, 18210), (75, 18264), (87, 18315), (93, 18336),

Gene: LilSpotty_19 Start: 16427, Stop: 16867, Start Num: 9

Candidate Starts for LilSpotty_19:

(3, 16319), (Start: 9 @16427 has 1 MA's), (11, 16436), (13, 16442), (32, 16529), (42, 16583), (43, 16589), (45, 16601), (46, 16604), (47, 16607), (53, 16637), (70, 16739), (85, 16799), (94, 16835),

Gene: LilhomieP_28 Start: 24158, Stop: 24616, Start Num: 19

Candidate Starts for LilhomieP_28:

(Start: 19 @24158 has 68 MA's), (Start: 22 @24167 has 2 MA's), (29, 24206), (Start: 31 @24215 has 1 MA's), (33, 24224), (34, 24230), (35, 24233), (41, 24269), (43, 24278), (49, 24305), (56, 24350), (59, 24359), (66, 24392), (71, 24419), (88, 24488), (96, 24521), (104, 24572), (106, 24581),

Gene: MAnor_19 Start: 17120, Stop: 17512, Start Num: 18

Candidate Starts for MAnor_19:

(Start: 18 @17120 has 25 MA's), (24, 17141), (36, 17195), (38, 17201), (39, 17210), (42, 17231), (44, 17246), (50, 17267), (79, 17408), (81, 17417), (88, 17438),

Gene: MScarn_21 Start: 17073, Stop: 17471, Start Num: 15

Candidate Starts for MScarn_21:

(Start: 15 @17073 has 8 MA's), (Start: 19 @17082 has 68 MA's), (35, 17154), (36, 17157), (39, 17172), (42, 17193), (44, 17208), (46, 17214), (52, 17238), (72, 17337), (81, 17379), (88, 17400), (97, 17442),

Gene: MaVan_21 Start: 18423, Stop: 18809, Start Num: 19

Candidate Starts for MaVan_21:

(Start: 19 @18423 has 68 MA's), (35, 18495), (39, 18513), (42, 18534), (46, 18555), (47, 18558), (52, 18579), (64, 18633), (70, 18672), (77, 18699), (81, 18720), (88, 18741),

Gene: Malvina_21 Start: 18338, Stop: 18724, Start Num: 19

Candidate Starts for Malvina_21:

(Start: 19 @18338 has 68 MA's), (35, 18410), (36, 18413), (40, 18443), (42, 18449), (44, 18464), (46, 18470), (47, 18473), (52, 18494), (67, 18566), (78, 18617), (81, 18635), (88, 18656),

Gene: Manilisa_24 Start: 20702, Stop: 21088, Start Num: 62

Candidate Starts for Manilisa_24:

(2, 20165), (4, 20348), (6, 20351), (27, 20498), (28, 20501), (48, 20600), (Start: 60 @20696 has 4 MA's), (Start: 62 @20702 has 1 MA's), (68, 20735), (109, 20954), (110, 20984), (111, 21008),

Gene: Margaret_22 Start: 17157, Stop: 17549, Start Num: 18

Candidate Starts for Margaret_22:

(8, 17103), (Start: 18 @17157 has 25 MA's), (24, 17178), (39, 17247), (42, 17268), (44, 17283), (50, 17304), (56, 17346), (81, 17454), (83, 17463), (88, 17475),

Gene: MaryV_42 Start: 27864, Stop: 28331, Start Num: 19

Candidate Starts for MaryV_42:

(Start: 19 @27864 has 68 MA's), (Start: 20 @27870 has 6 MA's), (29, 27912), (Start: 31 @27921 has 1 MA's), (42, 27975), (49, 28008), (52, 28020), (76, 28143), (81, 28167), (84, 28179), (95, 28224), (99, 28242), (102, 28266), (103, 28275), (108, 28302),

Gene: Mayweather_20 Start: 17735, Stop: 18127, Start Num: 18

Candidate Starts for Mayweather_20:

(Start: 18 @17735 has 25 MA's), (24, 17756), (36, 17810), (38, 17816), (39, 17825), (42, 17846), (44, 17861), (50, 17882), (79, 18023), (81, 18032), (88, 18053),

Gene: McDazzle_18 Start: 17582, Stop: 17974, Start Num: 18

Candidate Starts for McDazzle_18:

(Start: 18 @17582 has 25 MA's), (24, 17603), (36, 17657), (38, 17663), (39, 17672), (42, 17693), (44, 17708), (50, 17729), (79, 17870), (81, 17879), (88, 17900),

Gene: Meyran_22 Start: 20559, Stop: 20951, Start Num: 60

Candidate Starts for Meyran_22:

(1, 19923), (2, 20028), (4, 20211), (6, 20214), (27, 20361), (28, 20364), (48, 20463), (Start: 60 @20559 has 4 MA's), (Start: 62 @20565 has 1 MA's), (68, 20598), (109, 20817), (110, 20847), (111, 20871),

Gene: MicyPS_18 Start: 19058, Stop: 19444, Start Num: 20

Candidate Starts for MicyPS_18:

(Start: 20 @19058 has 6 MA's), (35, 19124), (36, 19127), (55, 19235), (83, 19364), (92, 19394), (94, 19403),

Gene: MrMagoo_33 Start: 24704, Stop: 25159, Start Num: 19

Candidate Starts for MrMagoo_33:

(Start: 19 @24704 has 68 MA's), (Start: 22 @24713 has 2 MA's), (29, 24752), (34, 24776), (35, 24779), (41, 24815), (49, 24851), (71, 24965), (77, 24992), (99, 25082), (100, 25085), (103, 25115), (104, 25118),

Gene: MunkgeeRoachy_19 Start: 17490, Stop: 17879, Start Num: 19

Candidate Starts for MunkgeeRoachy_19:

(Start: 19 @17490 has 68 MA's), (35, 17562), (36, 17565), (39, 17580), (42, 17601), (44, 17616), (50, 17637), (56, 17679), (72, 17745), (80, 17781), (81, 17787), (88, 17808), (97, 17850),

Gene: Nanosmite_33 Start: 24574, Stop: 25029, Start Num: 19

Candidate Starts for Nanosmite_33:

(Start: 19 @24574 has 68 MA's), (Start: 22 @24583 has 2 MA's), (23, 24589), (29, 24622), (33, 24640), (34, 24646), (41, 24685), (43, 24694), (49, 24721), (52, 24733), (65, 24796), (66, 24808), (73, 24841), (77, 24862), (88, 24904), (104, 24988),

Gene: Nibbles_21 Start: 18423, Stop: 18809, Start Num: 19

Candidate Starts for Nibbles_21:

(Start: 19 @18423 has 68 MA's), (35, 18495), (39, 18513), (42, 18534), (46, 18555), (47, 18558), (52, 18579), (64, 18633), (70, 18672), (77, 18699), (81, 18720), (88, 18741),

Gene: Nina_20 Start: 18484, Stop: 18873, Start Num: 19

Candidate Starts for Nina_20:

(Start: 19 @18484 has 68 MA's), (35, 18556), (36, 18559), (39, 18574), (42, 18595), (44, 18610), (50, 18631), (56, 18673), (72, 18739), (80, 18775), (81, 18781), (88, 18802), (97, 18844),

Gene: Nodigi_21 Start: 17443, Stop: 17835, Start Num: 18

Candidate Starts for Nodigi_21:

(8, 17389), (Start: 18 @17443 has 25 MA's), (24, 17464), (35, 17515), (36, 17518), (39, 17533), (42, 17554), (44, 17569), (50, 17590), (56, 17632), (72, 17698), (81, 17740), (82, 17743), (88, 17761),

Gene: Nyceirae_24 Start: 20423, Stop: 20815, Start Num: 60

Candidate Starts for Nyceirae_24:

(2, 19892), (4, 20075), (6, 20078), (27, 20225), (28, 20228), (48, 20327), (Start: 60 @20423 has 4 MA's), (Start: 62 @20429 has 1 MA's), (68, 20462), (86, 20543), (109, 20681), (110, 20711), (111, 20735),

Gene: Orla_21 Start: 17447, Stop: 17839, Start Num: 18

Candidate Starts for Orla_21:

(8, 17393), (Start: 17 @17444 has 1 MA's), (Start: 18 @17447 has 25 MA's), (24, 17468), (35, 17519), (36, 17522), (39, 17537), (42, 17558), (44, 17573), (50, 17594), (56, 17636), (72, 17702), (81, 17744), (82, 17747), (88, 17765),

Gene: PSonyx_18 Start: 19173, Stop: 19559, Start Num: 20

Candidate Starts for PSonyx_18:

(Start: 20 @19173 has 6 MA's), (35, 19239), (36, 19242), (55, 19350), (83, 19479), (94, 19518),

Gene: PegLeg_29 Start: 24166, Stop: 24615, Start Num: 22

Candidate Starts for PegLeg_29:

(Start: 19 @24157 has 68 MA's), (Start: 22 @24166 has 2 MA's), (29, 24205), (Start: 31 @24214 has 1 MA's), (33, 24223), (34, 24229), (35, 24232), (41, 24268), (43, 24277), (49, 24304), (56, 24349), (59, 24358), (66, 24391), (71, 24418), (88, 24487), (96, 24520), (104, 24571), (106, 24580),

Gene: Phishy_23 Start: 20431, Stop: 20817, Start Num: 62

Candidate Starts for Phishy_23:

(2, 19894), (4, 20077), (6, 20080), (27, 20227), (28, 20230), (48, 20329), (Start: 60 @20425 has 4 MA's), (Start: 62 @20431 has 1 MA's), (68, 20464), (109, 20683), (110, 20713), (111, 20737),

Gene: Pons_19 Start: 17110, Stop: 17502, Start Num: 18

Candidate Starts for Pons_19:

(Start: 18 @17110 has 25 MA's), (24, 17131), (36, 17185), (38, 17191), (39, 17200), (42, 17221), (44, 17236), (50, 17257), (79, 17398), (81, 17407), (88, 17428),

Gene: PotPie_19 Start: 17975, Stop: 18367, Start Num: 18

Candidate Starts for PotPie_19:

(Start: 18 @17975 has 25 MA's), (24, 17996), (36, 18050), (38, 18056), (39, 18065), (42, 18086), (44, 18101), (50, 18122), (79, 18263), (81, 18272), (88, 18293),

Gene: Poushou_20 Start: 19090, Stop: 19509, Start Num: 20

Candidate Starts for Poushou_20:

(Start: 20 @19090 has 6 MA's), (36, 19159), (44, 19213),

Gene: PsychoKiller_19 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for PsychoKiller_19:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: Quasar_19 Start: 18051, Stop: 18440, Start Num: 19

Candidate Starts for Quasar_19:

(Start: 19 @18051 has 68 MA's), (35, 18123), (36, 18126), (39, 18141), (42, 18162), (44, 18177), (50, 18198), (56, 18240), (72, 18306), (80, 18342), (81, 18348), (88, 18369), (97, 18411),

Gene: RADical_20 Start: 17443, Stop: 17832, Start Num: 19

Candidate Starts for RADical_20:

(Start: 19 @17443 has 68 MA's), (35, 17515), (36, 17518), (39, 17533), (42, 17554), (44, 17569), (50, 17590), (56, 17632), (72, 17698), (80, 17734), (81, 17740), (88, 17761), (97, 17803),

Gene: RSchmailzl_20 Start: 17586, Stop: 17975, Start Num: 19

Candidate Starts for RSchmailzl_20:

(Start: 19 @17586 has 68 MA's), (35, 17658), (36, 17661), (39, 17676), (42, 17697), (44, 17712), (50, 17733), (56, 17775), (72, 17841), (80, 17877), (81, 17883), (88, 17904), (97, 17946),

Gene: RanchParmCat_22 Start: 17157, Stop: 17549, Start Num: 18

Candidate Starts for RanchParmCat_22:

(8, 17103), (Start: 18 @17157 has 25 MA's), (24, 17178), (39, 17247), (42, 17268), (44, 17283), (50, 17304), (56, 17346), (81, 17454), (83, 17463), (88, 17475),

Gene: RedBaron_21 Start: 17486, Stop: 17875, Start Num: 19

Candidate Starts for RedBaron_21:

(Start: 19 @17486 has 68 MA's), (35, 17558), (36, 17561), (39, 17576), (42, 17597), (44, 17612), (50, 17633), (56, 17675), (72, 17741), (80, 17777), (81, 17783), (88, 17804), (97, 17846),

Gene: Reindeer_27 Start: 23982, Stop: 24440, Start Num: 19

Candidate Starts for Reindeer_27:

(Start: 19 @23982 has 68 MA's), (29, 24027), (Start: 31 @24036 has 1 MA's), (33, 24045), (34, 24051), (35, 24054), (41, 24093), (54, 24147), (88, 24312), (104, 24396), (106, 24405), (107, 24414),

Gene: Rey_33 Start: 24993, Stop: 25391, Start Num: 31

Candidate Starts for Rey_33:

(Start: 19 @24936 has 68 MA's), (Start: 22 @24945 has 2 MA's), (29, 24984), (Start: 31 @24993 has 1 MA's), (34, 25008), (35, 25011), (41, 25047), (49, 25083), (71, 25197), (77, 25224), (99, 25314), (100, 25317), (103, 25347), (104, 25350),

Gene: Ronaldo_57 Start: 30613, Stop: 31011, Start Num: 16

Candidate Starts for Ronaldo_57:

(Start: 16 @30613 has 4 MA's), (23, 30634), (36, 30694), (38, 30700), (40, 30724), (44, 30745), (46, 30751), (50, 30766), (58, 30835), (61, 30856), (69, 30892), (85, 30955), (89, 30964), (90, 30967),

Gene: RoseMarie_30 Start: 26020, Stop: 26478, Start Num: 19

Candidate Starts for RoseMarie_30:

(Start: 19 @26020 has 68 MA's), (Start: 22 @26029 has 2 MA's), (29, 26068), (Start: 31 @26077 has 1 MA's), (33, 26086), (34, 26092), (35, 26095), (41, 26131), (43, 26140), (49, 26167), (54, 26185), (56, 26212), (59, 26221), (71, 26281), (78, 26311), (88, 26350), (104, 26434), (106, 26443),

Gene: SamW_18 Start: 17982, Stop: 18359, Start Num: 19

Candidate Starts for SamW_18:

(Start: 19 @17982 has 68 MA's), (Start: 22 @17991 has 2 MA's), (25, 18012), (30, 18033), (37, 18054), (43, 18093), (63, 18189), (75, 18243), (87, 18294), (93, 18315),

Gene: SheckWes_18 Start: 17110, Stop: 17502, Start Num: 18

Candidate Starts for SheckWes_18:

(Start: 18 @17110 has 25 MA's), (24, 17131), (36, 17185), (38, 17191), (39, 17200), (42, 17221), (44, 17236), (50, 17257), (79, 17398), (81, 17407), (88, 17428),

Gene: SilverChicken_20 Start: 15408, Stop: 15773, Start Num: 21

Candidate Starts for SilverChicken_20:

(7, 15300), (10, 15354), (Start: 21 @15408 has 7 MA's), (34, 15468), (36, 15474), (39, 15489), (40, 15504), (42, 15510), (46, 15531), (47, 15534), (72, 15651), (82, 15693), (91, 15726),

Gene: SketchMex_18 Start: 17088, Stop: 17486, Start Num: 15

Candidate Starts for SketchMex_18:

(Start: 15 @17088 has 8 MA's), (Start: 19 @17097 has 68 MA's), (35, 17169), (36, 17172), (39, 17187), (42, 17208), (44, 17223), (46, 17229), (52, 17253), (72, 17352), (81, 17394), (88, 17415), (97, 17457),

Gene: Skinny_30 Start: 24158, Stop: 24616, Start Num: 19

Candidate Starts for Skinny_30:

(Start: 19 @24158 has 68 MA's), (Start: 22 @24167 has 2 MA's), (29, 24206), (Start: 31 @24215 has 1 MA's), (33, 24224), (34, 24230), (35, 24233), (41, 24269), (43, 24278), (49, 24305), (56, 24350), (59, 24359), (66, 24392), (71, 24419), (88, 24488), (96, 24521), (104, 24572), (106, 24581),

Gene: SlimJimmy_28 Start: 24144, Stop: 24602, Start Num: 19

Candidate Starts for SlimJimmy_28:

(Start: 19 @24144 has 68 MA's), (Start: 22 @24153 has 2 MA's), (29, 24192), (Start: 31 @24201 has 1 MA's), (33, 24210), (34, 24216), (35, 24219), (41, 24255), (43, 24264), (49, 24291), (56, 24336), (59, 24345), (66, 24378), (71, 24405), (88, 24474), (96, 24507), (104, 24558), (106, 24567),

Gene: Socotra_20 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for Socotra_20:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: Sopespian_19 Start: 17443, Stop: 17832, Start Num: 19

Candidate Starts for Sopespian_19:

(Start: 19 @17443 has 68 MA's), (35, 17515), (36, 17518), (39, 17533), (42, 17554), (44, 17569), (50, 17590), (56, 17632), (72, 17698), (80, 17734), (81, 17740), (88, 17761), (97, 17803),

Gene: Soul22_20 Start: 15406, Stop: 15771, Start Num: 21

Candidate Starts for Soul22_20:

(7, 15298), (10, 15352), (Start: 21 @15406 has 7 MA's), (34, 15466), (36, 15472), (39, 15487), (40, 15502), (42, 15508), (46, 15529), (47, 15532), (72, 15649), (82, 15691), (91, 15724),

Gene: StAB_18 Start: 18009, Stop: 18386, Start Num: 19

Candidate Starts for StAB_18:

(Start: 19 @18009 has 68 MA's), (Start: 22 @18018 has 2 MA's), (25, 18039), (30, 18060), (37, 18081), (43, 18120), (55, 18183), (63, 18216), (75, 18270), (87, 18321), (93, 18342),

Gene: Starburst_20 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for Starburst_20:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: SteamedHams_21 Start: 17115, Stop: 17504, Start Num: 19

Candidate Starts for SteamedHams_21:

(Start: 15 @17106 has 8 MA's), (Start: 19 @17115 has 68 MA's), (35, 17187), (36, 17190), (39, 17205), (42, 17226), (47, 17250), (72, 17370), (81, 17412), (88, 17433), (97, 17475),

Gene: Stiles_18 Start: 17787, Stop: 18164, Start Num: 19

Candidate Starts for Stiles_18:

(Start: 19 @17787 has 68 MA's), (Start: 22 @17796 has 2 MA's), (25, 17817), (30, 17838), (37, 17859), (43, 17898), (63, 17994), (75, 18048), (87, 18099), (93, 18120),

Gene: SummitAcademy_18 Start: 17190, Stop: 17582, Start Num: 18

Candidate Starts for SummitAcademy_18:

(Start: 18 @17190 has 25 MA's), (24, 17211), (36, 17265), (38, 17271), (39, 17280), (42, 17301), (44, 17316), (50, 17337), (79, 17478), (81, 17487), (88, 17508),

Gene: Survivors_21 Start: 18272, Stop: 18658, Start Num: 19

Candidate Starts for Survivors_21:

(Start: 19 @18272 has 68 MA's), (35, 18344), (39, 18362), (42, 18383), (46, 18404), (47, 18407), (52, 18428), (64, 18482), (70, 18521), (77, 18548), (81, 18569), (88, 18590),

Gene: SweatNTears_21 Start: 17608, Stop: 17997, Start Num: 19

Candidate Starts for SweatNTears_21:

(Start: 15 @17599 has 8 MA's), (Start: 19 @17608 has 68 MA's), (35, 17680), (36, 17683), (39, 17698), (42, 17719), (44, 17734), (46, 17740), (52, 17764), (81, 17905), (88, 17926), (97, 17968),

Gene: Taotie_18 Start: 20067, Stop: 20456, Start Num: 20

Candidate Starts for Taotie_18:

(Start: 20 @20067 has 6 MA's), (35, 20133), (36, 20136), (55, 20244), (83, 20373), (94, 20412),

Gene: Tarnish_19 Start: 17480, Stop: 17872, Start Num: 18

Candidate Starts for Tarnish_19:

(Start: 18 @17480 has 25 MA's), (24, 17501), (36, 17555), (38, 17561), (39, 17570), (42, 17591), (44, 17606), (50, 17627), (79, 17768), (81, 17777), (88, 17798),

Gene: Tolls_21 Start: 17118, Stop: 17507, Start Num: 19

Candidate Starts for Tolls_21:

(Start: 15 @17109 has 8 MA's), (Start: 19 @17118 has 68 MA's), (35, 17190), (36, 17193), (39, 17208), (42, 17229), (47, 17253), (72, 17373), (81, 17415), (88, 17436), (97, 17478),

Gene: TouchMeNot_20 Start: 19090, Stop: 19509, Start Num: 20

Candidate Starts for TouchMeNot_20:

(Start: 20 @19090 has 6 MA's), (36, 19159), (44, 19213),

Gene: TpudiCK_30 Start: 24157, Stop: 24615, Start Num: 19

Candidate Starts for TpudiCK_30:

(Start: 19 @24157 has 68 MA's), (Start: 22 @24166 has 2 MA's), (29, 24205), (Start: 31 @24214 has 1 MA's), (33, 24223), (34, 24229), (35, 24232), (41, 24268), (43, 24277), (49, 24304), (56, 24349), (59, 24358), (66, 24391), (71, 24418), (88, 24487), (96, 24520), (104, 24571), (106, 24580),

Gene: Troje_19 Start: 17070, Stop: 17468, Start Num: 15

Candidate Starts for Troje_19:

(Start: 15 @17070 has 8 MA's), (Start: 19 @17079 has 68 MA's), (35, 17151), (36, 17154), (39, 17169), (42, 17190), (44, 17205), (46, 17211), (52, 17235), (72, 17334), (81, 17376), (88, 17397), (97, 17439),

Gene: Troy_18 Start: 17982, Stop: 18359, Start Num: 19

Candidate Starts for Troy_18:

(Start: 19 @17982 has 68 MA's), (Start: 22 @17991 has 2 MA's), (25, 18012), (30, 18033), (37, 18054), (43, 18093), (63, 18189), (75, 18243), (87, 18294), (93, 18315),

Gene: TyDawg_29 Start: 24158, Stop: 24616, Start Num: 19

Candidate Starts for TyDawg_29:

(Start: 19 @24158 has 68 MA's), (Start: 22 @24167 has 2 MA's), (29, 24206), (Start: 31 @24215 has 1 MA's), (33, 24224), (34, 24230), (35, 24233), (41, 24269), (43, 24278), (49, 24305), (56, 24350), (59, 24359), (66, 24392), (71, 24419), (88, 24488), (96, 24521), (104, 24572), (106, 24581),

Gene: Typhonomachy_19 Start: 17442, Stop: 17831, Start Num: 19

Candidate Starts for Typhonomachy_19:

(Start: 19 @17442 has 68 MA's), (35, 17514), (36, 17517), (39, 17532), (42, 17553), (44, 17568), (50, 17589), (56, 17631), (72, 17697), (80, 17733), (81, 17739), (88, 17760), (97, 17802),

Gene: Vine_20 Start: 18125, Stop: 18514, Start Num: 18

Candidate Starts for Vine_20:

(Start: 18 @18125 has 25 MA's), (24, 18146), (36, 18200), (38, 18206), (39, 18215), (42, 18236), (44, 18251), (50, 18272), (79, 18413), (81, 18422), (88, 18443),

Gene: Volt_56 Start: 30613, Stop: 31011, Start Num: 16

Candidate Starts for Volt_56:

(Start: 16 @30613 has 4 MA's), (23, 30634), (36, 30694), (38, 30700), (40, 30724), (44, 30745), (46, 30751), (50, 30766), (58, 30835), (61, 30856), (69, 30892), (85, 30955), (89, 30964), (90, 30967),

Gene: Vordorf_23 Start: 20032, Stop: 20418, Start Num: 62

Candidate Starts for Vordorf_23:

(2, 19495), (4, 19678), (6, 19681), (27, 19828), (28, 19831), (48, 19930), (Start: 60 @20026 has 4 MA's), (Start: 62 @20032 has 1 MA's), (68, 20065), (109, 20284), (110, 20314), (111, 20338),

Gene: Wallaby_23 Start: 18416, Stop: 18802, Start Num: 19

Candidate Starts for Wallaby_23:

(Start: 19 @18416 has 68 MA's), (35, 18488), (39, 18506), (42, 18527), (46, 18548), (47, 18551), (52, 18572), (64, 18626), (70, 18665), (77, 18692), (81, 18713), (88, 18734),

Gene: Wildcat_42 Start: 27874, Stop: 28341, Start Num: 19

Candidate Starts for Wildcat_42:

(Start: 19 @27874 has 68 MA's), (Start: 20 @27880 has 6 MA's), (29, 27922), (Start: 31 @27931 has 1 MA's), (42, 27985), (49, 28018), (52, 28030), (76, 28153), (81, 28177), (84, 28189), (95, 28234), (99, 28252), (102, 28276), (103, 28285), (108, 28312),

Gene: Wolfwood_21 Start: 18416, Stop: 18802, Start Num: 19

Candidate Starts for Wolfwood_21:

(Start: 19 @18416 has 68 MA's), (35, 18488), (39, 18506), (42, 18527), (46, 18548), (47, 18551), (52, 18572), (64, 18626), (70, 18665), (77, 18692), (81, 18713), (88, 18734),

Gene: Yakult_20 Start: 17008, Stop: 17403, Start Num: 18

Candidate Starts for Yakult_20:

(Start: 18 @17008 has 25 MA's), (24, 17029), (36, 17083), (39, 17098), (42, 17119), (44, 17134), (50, 17155), (56, 17197), (81, 17305), (83, 17314), (88, 17326), (101, 17380),

Gene: Yarn_18 Start: 17108, Stop: 17497, Start Num: 19

Candidate Starts for Yarn_18:

(Start: 15 @17099 has 8 MA's), (Start: 19 @17108 has 68 MA's), (35, 17180), (36, 17183), (39, 17198), (42, 17219), (47, 17243), (72, 17363), (81, 17405), (88, 17426), (97, 17468),

Gene: Yoshi_20 Start: 15407, Stop: 15772, Start Num: 21

Candidate Starts for Yoshi_20:

(7, 15299), (10, 15353), (Start: 21 @15407 has 7 MA's), (34, 15467), (36, 15473), (39, 15488), (40, 15503), (42, 15509), (46, 15530), (47, 15533), (72, 15650), (82, 15692), (91, 15725),

Gene: Yucky_19 Start: 17984, Stop: 18373, Start Num: 18

Candidate Starts for Yucky_19:

(8, 17930), (Start: 18 @17984 has 25 MA's), (24, 18005), (36, 18059), (38, 18065), (39, 18074), (42, 18095), (44, 18110), (50, 18131), (79, 18272), (81, 18281), (88, 18302),

Gene: Yummy_20 Start: 16993, Stop: 17382, Start Num: 19

Candidate Starts for Yummy_20:

(Start: 15 @16984 has 8 MA's), (Start: 19 @16993 has 68 MA's), (35, 17065), (36, 17068), (39, 17083), (42, 17104), (44, 17119), (46, 17125), (52, 17149), (81, 17290), (88, 17311), (97, 17353),

Gene: Zapner_21 Start: 15932, Stop: 16297, Start Num: 21

Candidate Starts for Zapner_21:

(7, 15824), (10, 15878), (Start: 21 @15932 has 7 MA's), (34, 15992), (36, 15998), (39, 16013), (40, 16028), (42, 16034), (46, 16055), (47, 16058), (72, 16175), (82, 16217), (91, 16250),

Gene: Zareef_21 Start: 18424, Stop: 18810, Start Num: 19

Candidate Starts for Zareef_21:

(Start: 19 @18424 has 68 MA's), (35, 18496), (39, 18514), (42, 18535), (46, 18556), (47, 18559), (52, 18580), (64, 18634), (70, 18673), (77, 18700), (81, 18721), (88, 18742),

Gene: Ziko_57 Start: 30553, Stop: 30951, Start Num: 16

Candidate Starts for Ziko_57:

(Start: 16 @30553 has 4 MA's), (23, 30574), (36, 30634), (38, 30640), (40, 30664), (44, 30685), (46, 30691), (50, 30706), (58, 30775), (61, 30796), (69, 30832), (85, 30895), (89, 30904), (90, 30907),