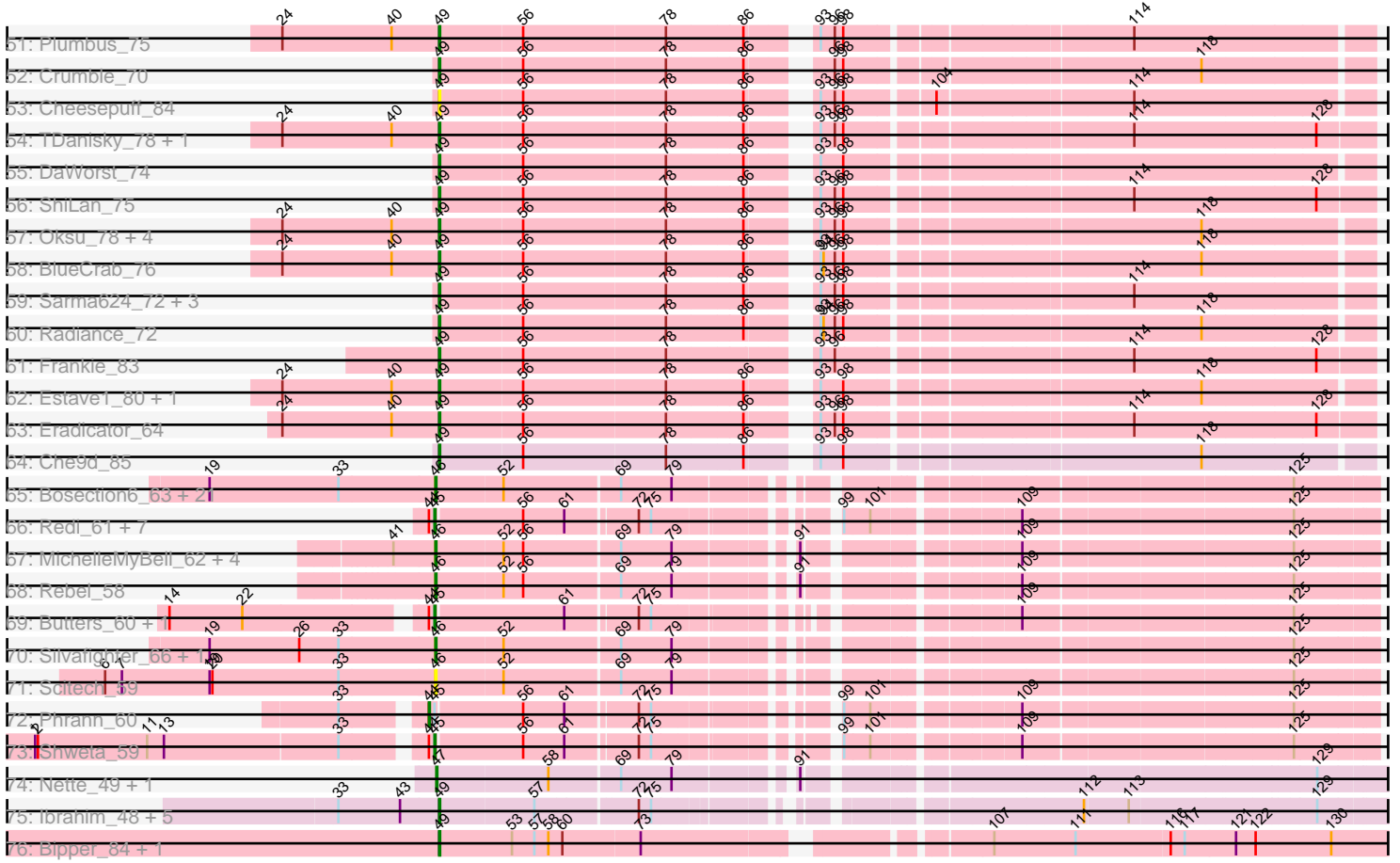


Pham 215838



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 215838 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215838 has 209 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Persistence_74
- Track 2 : Shukran_77
- Track 3 : AbbyDaisy_83
- Track 4 : BeeGee_74
- Track 5 : LonelyBoi_69
- Track 6 : Posh_72, Wrigley_74
- Track 7 : Cashline_69
- Track 8 : Pytheas_75, Jablanski_74
- Track 9 : Bradissa_68
- Track 10 : Lilas_68, EnalisNailo_67
- Track 11 : Floral_72, Pollux_74
- Track 12 : Confidence_70
- Track 13 : Marteena_70, EMsquaredA_71
- Track 14 : Angelique_66
- Track 15 : Pepperoni_59
- Track 16 : TimTam_72, Cynthia_66, TuertoX_66, Ebert_69, BatStarr_71, Sproutie_66, Bjanest_63, Herod_72, Whiteclaw_66, Clap_66, Mocha12_66, Eviarto_72, Hugley_70, Gizermo_66, GemG_66, PantheRoc_74, Haley23_66, Savage_66, Nymphadora_72, Lamberg_62
- Track 17 : BoyNamedSue_70, AlumE_70
- Track 18 : Suscepit_68, Trumpet_68, Neobush_70, Manasvini_70, Tayonia_68, Zameen_68
- Track 19 : Agueybana_73
- Track 20 : Antonio_67, Eudoria_68, Kita_69, Polly_65
- Track 21 : Bosnia_71
- Track 22 : Bialota_66, Zirinka_66
- Track 23 : FroggyToad_66
- Track 24 : Attis_65, LordFarquaad_68, SoilAssassin_65
- Track 25 : EdnaMode_65, Pickett_63, Yeet412_64
- Track 26 : Matteo_60, Sahara_65
- Track 27 : JCole_63
- Track 28 : Nettuno_63
- Track 29 : BaxterFox_74
- Track 30 : Powerball_66
- Track 31 : WinkNick_68, Dolores_68, Sekhmet_67
- Track 32 : PhriskyACE_65
- Track 33 : Suerte_62, Annalisa_66

- Track 34 : Mcklovin_68
- Track 35 : Denise_63
- Track 36 : Faith5x5_61
- Track 37 : Sidious_69
- Track 38 : Malisha_88
- Track 39 : MakCheese_77
- Track 40 : MulchSalad_83
- Track 41 : OwlsT2W_76
- Track 42 : Spikelee_80, DosHalletts_76
- Track 43 : Mutaforma13_79
- Track 44 : Nivrat_70, SimranZ1_74, Ramsey_77, PhilipPhlop_74, Juniper1_72, FreddyB_82, BodEinwohner17_79, Mantra_71, Violac_77, Sabbb_75, RockyHorror_74, LilMoolah_72, Karhdo_72, Slim_76, VRedHorse_73, Emmaloid_76, Cornucopia_75, Doug_74, Che8_78, Emma_76, Kersh_75, EmiMonkey_74, LunaBlu_76, Rialto_81, Polo2Bam_80, Grimmer_83, NewHope4_76, Fancypants_78, Moonbeam_74, Galactic_73, Mahavrat_70, Pacc40_67
- Track 45 : BuzzLyseyear_80, Eish_77
- Track 46 : Ovechkin_77, KingJulian_71, Hegedechwinu_75, Corium_71, TChen_75, LunaStella_73
- Track 47 : Starcevich_74
- Track 48 : Boomer_75, MilleniumForce_74, PMC_68, Rockne_72
- Track 49 : Donkeykong_77
- Track 50 : Nitzel_69
- Track 51 : Plumbus_75
- Track 52 : Crumble_70
- Track 53 : Cheesepuff_84
- Track 54 : TDanisky_78, Sparkdehlily_78
- Track 55 : DaWorst_74
- Track 56 : ShiLan_75
- Track 57 : Oksu_78, Spartacus_78, Job42_74, Phasih_70, Pollywog_74
- Track 58 : BlueCrab_76
- Track 59 : Sarma624_72, CaptainTrips_72, Hades_74, Velveteen_68
- Track 60 : Radiance_72
- Track 61 : Frankie_83
- Track 62 : Estave1_80, Royals2015_80
- Track 63 : Eradicator_64
- Track 64 : Che9d_85
- Track 65 : Bosection6_63, Pipsqueaks_65, Smurph_64, SkinnyPete_61, Aggie_60, Carcharodon_64, EGUnicorn_62, Magsby_63, Chewbacca_67, Schnauzer_65, Philonius_64, Fulbright_62, Silvy_60, Xerxes_64, Charlie_61, Parmesanjohn_64, Phloss_62, Tapioca_62, Andies_58, Melville_69, Tortoise12_62, Gex_65
- Track 66 : Redi_61, ShrimpFriedEgg_61, Raymond7_54, BabeRuth_61, Purgamenstris_61, Nenae_61, Hanako_60, PhancyPhin_61
- Track 67 : MichelleMyBell_62, Jamie19_56, SpongeBob_56, Snekmaggedon_56, Kevin1_63
- Track 68 : Rebel_58
- Track 69 : Butters_60, Rubeelu_60
- Track 70 : Silvafighter_66, Duplicity_62
- Track 71 : Scitech_59
- Track 72 : Phrann_60
- Track 73 : Shweta_59
- Track 74 : Nette_49, Mendokysei_46

- Track 75 : Ibrahim_48, Bernal13_48, ZenTime222_47, Whitty_47, RonRayGun_48, Nairb_47
- Track 76 : Bipper_84, Cracklewink_84

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

The start number called the most often in the published annotations is 49, it was called in 118 of the 184 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agueybana_73, AlumE_70, Angelique_66, Annalisa_66, BatStarr_71, BaxterFox_74, Bernal13_48, Bipper_84, Bjanese7_63, BlueCrab_76, BodEinwohner17_79, Boomer_75, BoyNamedSue_70, BuzzLyseyear_80, CaptainTrips_72, Che8_78, Che9d_85, CheesePuff_84, Clap_66, Confidence_70, Corium_71, Cornucopia_75, Cracklewink_84, Crumble_70, Cynthia_66, DaWorst_74, Dolores_68, Donkeykong_77, DosHalletts_76, Doug_74, EMSquaredA_71, Ebert_69, EdnaMode_65, Eish_77, EmiMonkey_74, Emma_76, Emmaloid_76, Eradicator_64, Estave1_80, Eviarto_72, Fancypants_78, Floral_72, Frankie_83, FreddyB_82, FroggyToad_66, Galactic_73, GemG_66, Gizermo_66, Grimmer_83, Hades_74, Haley23_66, Hegedechwinu_75, Herod_72, Hugley_70, Ibrahim_48, JCole_63, Job42_74, Juniper1_72, Karhdo_72, Kersh_75, KingJulian_71, Lamberg_62, LilMoolah_72, LonelyBoi_69, LunaBlu_76, LunaStella_73, Mahavrat_70, Manasvini_70, Mantra_71, Marteena_70, Mcklovin_68, MilleniumForce_74, Mocha12_66, Moonbeam_74, MulchSalad_83, Mutaforma13_79, Nairb_47, Neobush_70, Nettuno_63, NewHope4_76, Nivrat_70, Nymphadora_72, Oksu_78, Ovechkin_77, OwlsT2W_76, PMC_68, Pacc40_67, PantheRoc_74, Phasih_70, PhilipPhlop_74, PhriskyACE_65, Pickett_63, Plumbus_75, Pollux_74, Pollywog_74, Polo2Bam_80, Posh_72, Radiance_72, Ramsey_77, Rialto_81, Rockne_72, RockyHorror_74, RonRayGun_48, Royals2015_80, Sabbb_75, Sarma624_72, Savage_66, Sekhmet_67, ShiLan_75, Sidious_69, SimranZ1_74, Slim_76, Sparkdehlily_78, Spartacus_78, Spikelee_80, Sproutie_66, Starceвич_74, Suerte_62, Suscepit_68, TChen_75, TDanisky_78, Tayonia_68, TimTam_72, Trumpet_68, TuertoX_66, VRedHorse_73, Velveteen_68, Violac_77, Whiteclaw_66, Whitty_47, WinkNick_68, Wrigley_74, Yeet412_64, Zameen_68, ZenTime222_47,

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

- Antonio_67, BeeGee_74, Bialota_66, Bosnia_71, Eudoria_68, Kita_69, MakCheese_77, Polly_65, Powerball_66, Zirinka_66,

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

- AbbyDaisy_83, Aggie_60, Andies_58, Attis_65, BabeRuth_61, Bosection6_63, Bradissa_68, Butters_60, Carcharodon_64, Cashline_69, Charlie_61, Chewbacca_67, Denise_63, Duplicity_62, EGUnicorn_62, EnalisNailo_67, Faith5x5_61, Fulbright_62, Gex_65, Hanako_60, Jablanski_74, Jamie19_56, Kevin1_63, Lilas_68, LordFarquaad_68, Magsby_63, Malisha_88, Matteo_60, Melville_69, Mendokysei_46, MichelleMyBell_62, Nenae_61, Nette_49, Nitzel_69, ParmesanJohn_64, Pepperoni_59, Persistence_74, PhancyPhin_61, Philonius_64, Phloss_62, Phrann_60, Pipsqueaks_65, Purgamenstris_61, Pytheas_75, Raymond7_54, Rebel_58, Redi_61, Rubeelu_60, Sahara_65, Schnauzer_65, Scitech_59, ShrimpFriedEgg_61, Shukran_77, Shweta_59, Silvafighter_66, Silvy_60,

SkinnyPete_61, Smurph_64, Snekmaggedon_56, SoilAssassin_65, SpongeBob_56, Tapioca_62, Tortoise12_62, Xerxes_64,

Summary by start number:

Start 31:

- Found in 62 of 209 (29.7%) of genes in pham
- Manual Annotations of this start: 8 of 184
- Called 12.9% of time when present
- Phage (with cluster) where this start called: Antonio_67 (CZ1), Bialota_66 (CZ1), Bosnia_71 (CZ1), Eudoria_68 (CZ1), Kita_69 (CZ1), Polly_65 (CZ1), Powerball_66 (CZ4), Zirinka_66 (CZ1),

Start 39:

- Found in 61 of 209 (29.2%) of genes in pham
- Manual Annotations of this start: 1 of 184
- Called 1.6% of time when present
- Phage (with cluster) where this start called: BeeGee_74 (CY),

Start 44:

- Found in 12 of 209 (5.7%) of genes in pham
- Manual Annotations of this start: 1 of 184
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Phrann_60 (N),

Start 45:

- Found in 12 of 209 (5.7%) of genes in pham
- Manual Annotations of this start: 11 of 184
- Called 91.7% of time when present
- Phage (with cluster) where this start called: BabeRuth_61 (N), Butters_60 (N), Hanako_60 (N), Nenae_61 (N), PhancyPhin_61 (N), Purgamenstris_61 (N), Raymond7_54 (N), Redi_61 (N), Rubeelu_60 (N), ShrimpFriedEgg_61 (N), Shweta_59 (N),

Start 46:

- Found in 32 of 209 (15.3%) of genes in pham
- Manual Annotations of this start: 28 of 184
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie_60 (N), Andies_58 (N), Bosection6_63 (N), Carcharodon_64 (N), Charlie_61 (N), Chewbacca_67 (N), Duplicity_62 (N), EGUunicorn_62 (N), Fulbright_62 (N), Gex_65 (N), Jamie19_56 (N), Kevin1_63 (N), Magsby_63 (N), Melville_69 (N), MichelleMyBell_62 (N), Nitzel_69 (F1), Parmesanjohn_64 (N), Philonius_64 (N), Phloss_62 (N), Pipsqueaks_65 (N), Rebel_58 (N), Schnauzer_65 (N), Scitech_59 (N), Silvafighter_66 (N), Silvy_60 (N), SkinnyPete_61 (N), Smurph_64 (N), Snekmaggedon_56 (N), SpongeBob_56 (N), Tapioca_62 (N), Tortoise12_62 (N), Xerxes_64 (N),

Start 47:

- Found in 17 of 209 (8.1%) of genes in pham
- Manual Annotations of this start: 15 of 184
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Attis_65 (CZ2), Bradissa_68 (CY1), Cashline_69 (CY), Denise_63 (CZ5), EnalisNailo_67 (CY1), Faith5x5_61 (CZ6),

Jablanski_74 (CY), Lilas_68 (CY1), LordFarquaad_68 (CZ2), Malisha_88 (DN), Matteo_60 (CZ2), Mendokyse_46 (T), Nette_49 (T), Pepperoni_59 (CZ), Pytheas_75 (CY), Sahara_65 (CZ2), SoilAssassin_65 (CZ2),

Start 48:

- Found in 3 of 209 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 184
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_83 (AY), Persistence_74 (AY), Shukran_77 (AY),

Start 49:

- Found in 145 of 209 (69.4%) of genes in pham
- Manual Annotations of this start: 118 of 184
- Called 93.1% of time when present
- Phage (with cluster) where this start called: Agueybana_73 (CZ1), AlumE_70 (CZ1), Angelique_66 (CY1), Annalisa_66 (CZ4), BatStarr_71 (CZ1), BaxterFox_74 (CZ3), Bernal13_48 (T), Bipper_84 (Y), Bjanes7_63 (CZ2), BlueCrab_76 (F1), BodEinwohner17_79 (F1), Boomer_75 (F1), BoyNamedSue_70 (CZ1), BuzzLyseyear_80 (F1), CaptainTrips_72 (F1), Che8_78 (F1), Che9d_85 (F2), CheesePuff_84 (F1), Clap_66 (CZ2), Confidence_70 (CY1), Corium_71 (F1), Cornucopia_75 (F1), Cracklewink_84 (Y), Crumble_70 (F1), Cynthia_66 (CZ2), DaWorst_74 (F1), Dolores_68 (CZ4), Donkeykong_77 (F1), DosHalletts_76 (F1), Doug_74 (F1), EMsquaredA_71 (CY1), Ebert_69 (CZ2), EdnaMode_65 (CZ2), Eish_77 (F1), EmiMonkey_74 (F1), Emma_76 (F1), Emmaloid_76 (F1), Eradicator_64 (F1), Estave1_80 (F1), Eviarto_72 (CZ1), FancyPants_78 (F1), Floral_72 (CY1), Frankie_83 (F1), FreddyB_82 (F1), FroggyToad_66 (CZ2), Galactic_73 (F1), GemG_66 (CZ2), Gizermo_66 (CZ2), Grimmer_83 (F1), Hades_74 (F1), Haley23_66 (CZ2), Hegedechwinu_75 (F1), Herod_72 (CZ1), Hugley_70 (CZ1), Ibrahim_48 (T), JCole_63 (CZ2), Job42_74 (F1), Juniper1_72 (F1), Karhdo_72 (F1), Kersh_75 (F1), KingJulian_71 (F1), Lamberg_62 (CZ2), LilMoolah_72 (F1), LonelyBoi_69 (CY), LunaBlu_76 (F1), LunaStella_73 (F4), Mahavrat_70 (F1), Manasvini_70 (CZ1), Mantra_71 (F1), Marteena_70 (CY1), Mcklovin_68 (CZ4), MillenniumForce_74 (F1), Mocha12_66 (CZ2), Moonbeam_74 (F1), MulchSalad_83 (F), Mutaforma13_79 (F1), Nairb_47 (T), Neobush_70 (CZ1), Nettuno_63 (CZ2), NewHope4_76 (F1), Nivrat_70 (F1), Nymphadora_72 (CZ1), Oksu_78 (F1), Ovechkin_77 (F1), OwlsT2W_76 (F1), PMC_68 (F1), Pacc40_67 (F1), PantheRoc_74 (CZ3), Phasih_70 (F1), PhilipPhlop_74 (F1), PhriskyACE_65 (CZ4), Pickett_63 (CZ2), Plumbus_75 (F1), Pollux_74 (CY1), Pollywog_74 (F1), Polo2Bam_80 (F1), Posh_72 (CY), Radiance_72 (F1), Ramsey_77 (F1), Rialto_81 (F1), Rockne_72 (F1), RockyHorror_74 (F1), RonRayGun_48 (T), Royals2015_80 (F1), Sabbb_75 (F1), Sarma624_72 (F1), Savage_66 (CZ2), Sekhmet_67 (CZ4), ShiLan_75 (F1), Sidious_69 (CZ7), SimranZ1_74 (F1), Slim_76 (F1), Sparkdehlily_78 (F1), Spartacus_78 (F1), Spikelee_80 (F1), Sproutie_66 (CZ2), StarceVich_74 (F1), Suerte_62 (CZ4), Suscepit_68 (CZ1), TChen_75 (F4), TDanisky_78 (F1), Tayonia_68 (CZ1), TimTam_72 (CZ1), Trumpet_68 (CZ1), TuertoX_66 (CZ2), VRedHorse_73 (F1), Velveteen_68 (F1), Violac_77 (F1), Whiteclaw_66 (CZ2), Whitty_47 (T), WinkNick_68 (CZ4), Wrigley_74 (CY), Yeet412_64 (CZ2), Zameen_68 (CZ1), ZenTime222_47 (T),

Start 78:

- Found in 118 of 209 (56.5%) of genes in pham
- No Manual Annotations of this start.
- Called 0.8% of time when present

- Phage (with cluster) where this start called: MakCheese_77 (DW),

Summary by clusters:

There are 20 clusters represented in this pham: DN, F1, CY1, CZ7, F4, F, CZ, CZ2, CZ3, CZ1, CZ6, F2, CZ4, N, Y, CY, T, AY, DW, CZ5,

Info for manual annotations of cluster AY:

- Start number 48 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster CY:

- Start number 39 was manually annotated 1 time for cluster CY.
- Start number 47 was manually annotated 3 times for cluster CY.
- Start number 49 was manually annotated 3 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 47 was manually annotated 3 times for cluster CY1.
- Start number 49 was manually annotated 6 times for cluster CY1.

Info for manual annotations of cluster CZ1:

- Start number 31 was manually annotated 7 times for cluster CZ1.
- Start number 49 was manually annotated 14 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 47 was manually annotated 5 times for cluster CZ2.
- Start number 49 was manually annotated 17 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 49 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 31 was manually annotated 1 time for cluster CZ4.
- Start number 49 was manually annotated 6 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 47 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 47 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster CZ7:

- Start number 49 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DN:

- Start number 47 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster F1:

- Start number 46 was manually annotated 1 time for cluster F1.
- Start number 49 was manually annotated 58 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 49 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:

- Start number 49 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster N:

- Start number 44 was manually annotated 1 time for cluster N.
- Start number 45 was manually annotated 11 times for cluster N.
- Start number 46 was manually annotated 27 times for cluster N.

Info for manual annotations of cluster T:

- Start number 47 was manually annotated 1 time for cluster T.
- Start number 49 was manually annotated 6 times for cluster T.

Info for manual annotations of cluster Y:

- Start number 49 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: AbbyDaisy_83 Start: 47605, Stop: 48462, Start Num: 48

Candidate Starts for AbbyDaisy_83:

(Start: 48 @47605 has 2 MA's), (56, 47692), (59, 47725), (66, 47770), (71, 47803), (78, 47842), (81, 47872), (106, 48061), (124, 48355), (126, 48367), (129, 48391),

Gene: Aggie_60 Start: 40157, Stop: 41050, Start Num: 46

Candidate Starts for Aggie_60:

(19, 39917), (33, 40055), (Start: 46 @40157 has 28 MA's), (52, 40226), (69, 40346), (79, 40400), (125, 40967),

Gene: Agueybana_73 Start: 47501, Stop: 48382, Start Num: 49

Candidate Starts for Agueybana_73:

(Start: 31 @47375 has 8 MA's), (35, 47414), (38, 47438), (Start: 39 @47453 has 1 MA's), (42, 47462), (Start: 49 @47501 has 118 MA's), (50, 47555), (63, 47636), (71, 47699), (78, 47738), (83, 47777), (87, 47828), (88, 47849), (113, 48134), (120, 48236),

Gene: AlumE_70 Start: 47357, Stop: 48307, Start Num: 49

Candidate Starts for AlumE_70:

(12, 47069), (Start: 31 @47231 has 8 MA's), (38, 47294), (Start: 39 @47309 has 1 MA's), (42, 47318), (Start: 49 @47357 has 118 MA's), (74, 47573), (82, 47624), (83, 47630), (88, 47702), (102, 47819), (118, 48134), (120, 48161), (123, 48188),

Gene: Andies_58 Start: 39602, Stop: 40495, Start Num: 46

Candidate Starts for Andies_58:

(19, 39362), (33, 39500), (Start: 46 @39602 has 28 MA's), (52, 39671), (69, 39791), (79, 39845), (125, 40412),

Gene: Angelique_66 Start: 45818, Stop: 46699, Start Num: 49

Candidate Starts for Angelique_66:

(Start: 31 @45692 has 8 MA's), (34, 45725), (36, 45734), (38, 45755), (Start: 39 @45770 has 1 MA's), (42, 45779), (Start: 49 @45818 has 118 MA's), (50, 45872), (71, 46016), (78, 46055), (83, 46094), (87,

46145), (88, 46166),

Gene: Annalisa_66 Start: 42612, Stop: 43493, Start Num: 49

Candidate Starts for Annalisa_66:

(15, 42333), (25, 42462), (Start: 31 @42486 has 8 MA's), (38, 42549), (Start: 39 @42564 has 1 MA's), (42, 42573), (Start: 49 @42612 has 118 MA's), (50, 42666), (65, 42762), (71, 42810), (78, 42849), (85, 42915), (88, 42960), (120, 43347),

Gene: Antonio_67 Start: 44748, Stop: 45824, Start Num: 31

Candidate Starts for Antonio_67:

(Start: 31 @44748 has 8 MA's), (34, 44781), (38, 44811), (Start: 39 @44826 has 1 MA's), (42, 44835), (Start: 49 @44874 has 118 MA's), (62, 45006), (74, 45090), (82, 45141), (83, 45147), (88, 45219), (118, 45651), (120, 45678), (123, 45705), (131, 45795),

Gene: Attis_65 Start: 43651, Stop: 44541, Start Num: 47

Candidate Starts for Attis_65:

(Start: 47 @43651 has 15 MA's), (56, 43738), (58, 43765), (64, 43789), (68, 43837), (70, 43846), (100, 44050),

Gene: BabeRuth_61 Start: 38268, Stop: 39146, Start Num: 45

Candidate Starts for BabeRuth_61:

(Start: 44 @38262 has 1 MA's), (Start: 45 @38268 has 11 MA's), (56, 38358), (61, 38400), (72, 38469), (75, 38481), (99, 38631), (101, 38658), (109, 38793), (125, 39063),

Gene: BatStarr_71 Start: 47905, Stop: 48786, Start Num: 49

Candidate Starts for BatStarr_71:

(Start: 31 @47779 has 8 MA's), (36, 47821), (38, 47842), (Start: 39 @47857 has 1 MA's), (42, 47866), (Start: 49 @47905 has 118 MA's), (50, 47959), (63, 48040), (71, 48103), (78, 48142), (83, 48181), (87, 48232), (88, 48253), (113, 48538), (120, 48640),

Gene: BaxterFox_74 Start: 48420, Stop: 49370, Start Num: 49

Candidate Starts for BaxterFox_74:

(Start: 31 @48294 has 8 MA's), (38, 48357), (Start: 39 @48372 has 1 MA's), (Start: 49 @48420 has 118 MA's), (54, 48498), (62, 48552), (74, 48636), (82, 48687), (83, 48693), (88, 48765), (118, 49197), (120, 49224), (123, 49251), (131, 49341),

Gene: BeeGee_74 Start: 46893, Stop: 47891, Start Num: 39

Candidate Starts for BeeGee_74:

(Start: 31 @46815 has 8 MA's), (38, 46878), (Start: 39 @46893 has 1 MA's), (42, 46902), (Start: 49 @46941 has 118 MA's), (82, 47208), (83, 47214), (88, 47286), (102, 47403), (118, 47718), (120, 47745), (131, 47862),

Gene: Bernal13_48 Start: 35076, Stop: 35957, Start Num: 49

Candidate Starts for Bernal13_48:

(33, 34971), (43, 35037), (Start: 49 @35076 has 118 MA's), (57, 35175), (72, 35274), (75, 35286), (112, 35658), (113, 35703), (129, 35889),

Gene: Bialota_66 Start: 46422, Stop: 47498, Start Num: 31

Candidate Starts for Bialota_66:

(12, 46260), (Start: 31 @46422 has 8 MA's), (38, 46485), (Start: 39 @46500 has 1 MA's), (42, 46509), (Start: 49 @46548 has 118 MA's), (74, 46764), (82, 46815), (83, 46821), (88, 46893), (102, 47010), (118, 47325), (120, 47352), (123, 47379),

Gene: Bipper_84 Start: 54628, Stop: 55608, Start Num: 49

Candidate Starts for Bipper_84:

(Start: 49 @54628 has 118 MA's), (53, 54706), (57, 54730), (58, 54745), (60, 54760), (73, 54841), (107, 55156), (111, 55243), (116, 55342), (117, 55357), (121, 55411), (122, 55432), (130, 55513),

Gene: Bjaner7_63 Start: 41285, Stop: 42166, Start Num: 49

Candidate Starts for Bjaner7_63:

(Start: 31 @41159 has 8 MA's), (36, 41201), (38, 41222), (Start: 39 @41237 has 1 MA's), (42, 41246), (Start: 49 @41285 has 118 MA's), (50, 41339), (63, 41420), (71, 41483), (78, 41522), (83, 41561), (87, 41612), (88, 41633), (113, 41918), (120, 42020),

Gene: BlueCrab_76 Start: 47486, Stop: 48391, Start Num: 49

Candidate Starts for BlueCrab_76:

(24, 47318), (40, 47435), (Start: 49 @47486 has 118 MA's), (56, 47573), (78, 47723), (86, 47801), (93, 47849), (94, 47852), (96, 47864), (98, 47873), (118, 48221),

Gene: BodEinwohner17_79 Start: 48575, Stop: 49480, Start Num: 49

Candidate Starts for BodEinwohner17_79:

(Start: 49 @48575 has 118 MA's), (56, 48662), (78, 48812), (86, 48890), (93, 48938), (96, 48953), (98, 48962), (118, 49310),

Gene: Boomer_75 Start: 46670, Stop: 47575, Start Num: 49

Candidate Starts for Boomer_75:

(24, 46502), (40, 46619), (Start: 49 @46670 has 118 MA's), (56, 46757), (78, 46907), (86, 46985), (93, 47033), (96, 47048), (114, 47333),

Gene: Bosection6_63 Start: 39206, Stop: 40099, Start Num: 46

Candidate Starts for Bosection6_63:

(19, 38966), (33, 39104), (Start: 46 @39206 has 28 MA's), (52, 39275), (69, 39395), (79, 39449), (125, 40016),

Gene: Bosnia_71 Start: 49075, Stop: 50151, Start Num: 31

Candidate Starts for Bosnia_71:

(4, 48838), (25, 49048), (Start: 31 @49075 has 8 MA's), (34, 49108), (38, 49138), (Start: 39 @49153 has 1 MA's), (Start: 49 @49201 has 118 MA's), (54, 49279), (62, 49333), (74, 49417), (82, 49468), (83, 49474), (88, 49546), (102, 49663), (118, 49978), (120, 50005),

Gene: BoyNamedSue_70 Start: 47357, Stop: 48307, Start Num: 49

Candidate Starts for BoyNamedSue_70:

(12, 47069), (Start: 31 @47231 has 8 MA's), (38, 47294), (Start: 39 @47309 has 1 MA's), (42, 47318), (Start: 49 @47357 has 118 MA's), (74, 47573), (82, 47624), (83, 47630), (88, 47702), (102, 47819), (118, 48134), (120, 48161), (123, 48188),

Gene: Bradissa_68 Start: 47335, Stop: 48228, Start Num: 47

Candidate Starts for Bradissa_68:

(Start: 47 @47335 has 15 MA's), (56, 47422), (58, 47449), (64, 47473), (68, 47521), (70, 47530), (100, 47734), (118, 48055), (120, 48082), (131, 48199),

Gene: Butters_60 Start: 37566, Stop: 38435, Start Num: 45

Candidate Starts for Butters_60:

(14, 37308), (22, 37386), (Start: 44 @37560 has 1 MA's), (Start: 45 @37566 has 11 MA's), (61, 37698), (72, 37767), (75, 37779), (109, 38082), (125, 38352),

Gene: BuzzLyseyear_80 Start: 48620, Stop: 49525, Start Num: 49
Candidate Starts for BuzzLyseyear_80:
(30, 48485), (40, 48569), (Start: 49 @48620 has 118 MA's), (56, 48707), (78, 48857), (86, 48935), (93, 48983), (96, 48998), (98, 49007), (118, 49355),

Gene: CaptainTrips_72 Start: 45876, Stop: 46781, Start Num: 49
Candidate Starts for CaptainTrips_72:
(Start: 49 @45876 has 118 MA's), (56, 45963), (78, 46113), (86, 46191), (93, 46239), (96, 46254), (98, 46263), (114, 46539),

Gene: Carcharodon_64 Start: 39504, Stop: 40397, Start Num: 46
Candidate Starts for Carcharodon_64:
(19, 39264), (33, 39402), (Start: 46 @39504 has 28 MA's), (52, 39573), (69, 39693), (79, 39747), (125, 40314),

Gene: Cashline_69 Start: 48024, Stop: 48923, Start Num: 47
Candidate Starts for Cashline_69:
(23, 47856), (Start: 47 @48024 has 15 MA's), (51, 48090), (56, 48114), (64, 48165), (76, 48252), (78, 48267), (88, 48378), (108, 48552), (127, 48858),

Gene: Charlie_61 Start: 38830, Stop: 39723, Start Num: 46
Candidate Starts for Charlie_61:
(19, 38590), (33, 38728), (Start: 46 @38830 has 28 MA's), (52, 38899), (69, 39019), (79, 39073), (125, 39640),

Gene: Che8_78 Start: 46685, Stop: 47590, Start Num: 49
Candidate Starts for Che8_78:
(Start: 49 @46685 has 118 MA's), (56, 46772), (78, 46922), (86, 47000), (93, 47048), (96, 47063), (98, 47072), (118, 47420),

Gene: Che9d_85 Start: 46409, Stop: 47314, Start Num: 49
Candidate Starts for Che9d_85:
(Start: 49 @46409 has 118 MA's), (56, 46496), (78, 46646), (86, 46724), (93, 46772), (98, 46796), (118, 47144),

Gene: Cheesepuff_84 Start: 46070, Stop: 46975, Start Num: 49
Candidate Starts for Cheesepuff_84:
(Start: 49 @46070 has 118 MA's), (56, 46157), (78, 46307), (86, 46385), (93, 46433), (96, 46448), (98, 46457), (104, 46538), (114, 46733),

Gene: Chewbacca_67 Start: 39399, Stop: 40292, Start Num: 46
Candidate Starts for Chewbacca_67:
(19, 39159), (33, 39297), (Start: 46 @39399 has 28 MA's), (52, 39468), (69, 39588), (79, 39642), (125, 40209),

Gene: Clap_66 Start: 41464, Stop: 42345, Start Num: 49
Candidate Starts for Clap_66:
(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: Confidence_70 Start: 45341, Stop: 46291, Start Num: 49
Candidate Starts for Confidence_70:

(10, 45041), (12, 45053), (29, 45209), (30, 45212), (Start: 31 @45215 has 8 MA's), (38, 45278), (Start: 39 @45293 has 1 MA's), (42, 45302), (Start: 49 @45341 has 118 MA's), (74, 45557), (82, 45608), (83, 45614), (102, 45803), (118, 46118), (120, 46145), (123, 46172),

Gene: Corium_71 Start: 47337, Stop: 48242, Start Num: 49

Candidate Starts for Corium_71:

(Start: 49 @47337 has 118 MA's), (56, 47424), (78, 47574), (86, 47652), (93, 47700), (96, 47715), (114, 48000),

Gene: Cornucopia_75 Start: 45300, Stop: 46205, Start Num: 49

Candidate Starts for Cornucopia_75:

(Start: 49 @45300 has 118 MA's), (56, 45387), (78, 45537), (86, 45615), (93, 45663), (96, 45678), (98, 45687), (118, 46035),

Gene: Cracklewink_84 Start: 53668, Stop: 54648, Start Num: 49

Candidate Starts for Cracklewink_84:

(Start: 49 @53668 has 118 MA's), (53, 53746), (57, 53770), (58, 53785), (60, 53800), (73, 53881), (107, 54196), (111, 54283), (116, 54382), (117, 54397), (121, 54451), (122, 54472), (130, 54553),

Gene: Crumble_70 Start: 42909, Stop: 43814, Start Num: 49

Candidate Starts for Crumble_70:

(Start: 49 @42909 has 118 MA's), (56, 42996), (78, 43146), (86, 43224), (96, 43287), (98, 43296), (118, 43644),

Gene: Cynthia_66 Start: 41462, Stop: 42343, Start Num: 49

Candidate Starts for Cynthia_66:

(Start: 31 @41336 has 8 MA's), (36, 41378), (38, 41399), (Start: 39 @41414 has 1 MA's), (42, 41423), (Start: 49 @41462 has 118 MA's), (50, 41516), (63, 41597), (71, 41660), (78, 41699), (83, 41738), (87, 41789), (88, 41810), (113, 42095), (120, 42197),

Gene: DaWorst_74 Start: 45649, Stop: 46554, Start Num: 49

Candidate Starts for DaWorst_74:

(Start: 49 @45649 has 118 MA's), (56, 45736), (78, 45886), (86, 45964), (93, 46012), (98, 46036),

Gene: Denise_63 Start: 38261, Stop: 39133, Start Num: 47

Candidate Starts for Denise_63:

(3, 37868), (5, 37895), (Start: 47 @38261 has 15 MA's), (65, 38411), (66, 38426), (71, 38459), (77, 38495), (78, 38498), (113, 38885),

Gene: Dolores_68 Start: 42147, Stop: 43028, Start Num: 49

Candidate Starts for Dolores_68:

(Start: 31 @42021 has 8 MA's), (36, 42063), (38, 42084), (Start: 39 @42099 has 1 MA's), (42, 42108), (Start: 49 @42147 has 118 MA's), (50, 42201), (71, 42345), (78, 42384), (85, 42450), (88, 42495), (113, 42780),

Gene: Donkeykong_77 Start: 47602, Stop: 48507, Start Num: 49

Candidate Starts for Donkeykong_77:

(Start: 49 @47602 has 118 MA's), (56, 47689), (78, 47839), (86, 47917), (93, 47965), (96, 47980), (98, 47989), (118, 48337),

Gene: DosHalletts_76 Start: 47904, Stop: 48809, Start Num: 49

Candidate Starts for DosHalletts_76:

(Start: 49 @47904 has 118 MA's), (56, 47991), (78, 48141), (86, 48219), (93, 48267), (96, 48282), (114, 48567),

Gene: Doug_74 Start: 47529, Stop: 48434, Start Num: 49

Candidate Starts for Doug_74:

(Start: 49 @47529 has 118 MA's), (56, 47616), (78, 47766), (86, 47844), (93, 47892), (96, 47907), (98, 47916), (118, 48264),

Gene: Duplicity_62 Start: 38761, Stop: 39654, Start Num: 46

Candidate Starts for Duplicity_62:

(19, 38521), (26, 38617), (33, 38659), (Start: 46 @38761 has 28 MA's), (52, 38830), (69, 38950), (79, 39004), (125, 39571),

Gene: EGUunicorn_62 Start: 37827, Stop: 38720, Start Num: 46

Candidate Starts for EGUunicorn_62:

(19, 37587), (33, 37725), (Start: 46 @37827 has 28 MA's), (52, 37896), (69, 38016), (79, 38070), (125, 38637),

Gene: EMSquaredA_71 Start: 46386, Stop: 47267, Start Num: 49

Candidate Starts for EMSquaredA_71:

(16, 46119), (Start: 31 @46260 has 8 MA's), (36, 46302), (38, 46323), (Start: 39 @46338 has 1 MA's), (42, 46347), (Start: 49 @46386 has 118 MA's), (50, 46440), (63, 46521), (71, 46584), (78, 46623), (83, 46662), (87, 46713), (88, 46734), (108, 46896), (127, 47202),

Gene: Ebert_69 Start: 41896, Stop: 42777, Start Num: 49

Candidate Starts for Ebert_69:

(Start: 31 @41770 has 8 MA's), (36, 41812), (38, 41833), (Start: 39 @41848 has 1 MA's), (42, 41857), (Start: 49 @41896 has 118 MA's), (50, 41950), (63, 42031), (71, 42094), (78, 42133), (83, 42172), (87, 42223), (88, 42244), (113, 42529), (120, 42631),

Gene: EdnaMode_65 Start: 41503, Stop: 42453, Start Num: 49

Candidate Starts for EdnaMode_65:

(Start: 31 @41377 has 8 MA's), (34, 41410), (38, 41440), (Start: 39 @41455 has 1 MA's), (Start: 49 @41503 has 118 MA's), (62, 41635), (74, 41719), (83, 41776), (102, 41965), (118, 42280), (120, 42307), (123, 42334), (131, 42424),

Gene: Eish_77 Start: 47282, Stop: 48187, Start Num: 49

Candidate Starts for Eish_77:

(30, 47147), (40, 47231), (Start: 49 @47282 has 118 MA's), (56, 47369), (78, 47519), (86, 47597), (93, 47645), (96, 47660), (98, 47669), (118, 48017),

Gene: EmiMonkey_74 Start: 50231, Stop: 51136, Start Num: 49

Candidate Starts for EmiMonkey_74:

(Start: 49 @50231 has 118 MA's), (56, 50318), (78, 50468), (86, 50546), (93, 50594), (96, 50609), (98, 50618), (118, 50966),

Gene: Emma_76 Start: 45662, Stop: 46567, Start Num: 49

Candidate Starts for Emma_76:

(Start: 49 @45662 has 118 MA's), (56, 45749), (78, 45899), (86, 45977), (93, 46025), (96, 46040), (98, 46049), (118, 46397),

Gene: Emmaloid_76 Start: 46400, Stop: 47305, Start Num: 49

Candidate Starts for Emmaloid_76:

(Start: 49 @46400 has 118 MA's), (56, 46487), (78, 46637), (86, 46715), (93, 46763), (96, 46778), (98, 46787), (118, 47135),

Gene: EnalisNailo_67 Start: 46869, Stop: 47759, Start Num: 47

Candidate Starts for EnalisNailo_67:

(Start: 47 @46869 has 15 MA's), (56, 46956), (58, 46983), (64, 47007), (68, 47055), (70, 47064), (100, 47268), (113, 47511), (120, 47613),

Gene: Eradicator_64 Start: 44086, Stop: 44997, Start Num: 49

Candidate Starts for Eradicator_64:

(24, 43918), (40, 44035), (Start: 49 @44086 has 118 MA's), (56, 44173), (78, 44323), (86, 44401), (93, 44449), (96, 44464), (98, 44473), (114, 44749), (128, 44938),

Gene: Estave1_80 Start: 49599, Stop: 50504, Start Num: 49

Candidate Starts for Estave1_80:

(24, 49431), (40, 49548), (Start: 49 @49599 has 118 MA's), (56, 49686), (78, 49836), (86, 49914), (93, 49962), (98, 49986), (118, 50334),

Gene: Eudoria_68 Start: 44748, Stop: 45824, Start Num: 31

Candidate Starts for Eudoria_68:

(Start: 31 @44748 has 8 MA's), (34, 44781), (38, 44811), (Start: 39 @44826 has 1 MA's), (42, 44835), (Start: 49 @44874 has 118 MA's), (62, 45006), (74, 45090), (82, 45141), (83, 45147), (88, 45219), (118, 45651), (120, 45678), (123, 45705), (131, 45795),

Gene: Eviarto_72 Start: 47880, Stop: 48761, Start Num: 49

Candidate Starts for Eviarto_72:

(Start: 31 @47754 has 8 MA's), (36, 47796), (38, 47817), (Start: 39 @47832 has 1 MA's), (42, 47841), (Start: 49 @47880 has 118 MA's), (50, 47934), (63, 48015), (71, 48078), (78, 48117), (83, 48156), (87, 48207), (88, 48228), (113, 48513), (120, 48615),

Gene: Faith5x5_61 Start: 36698, Stop: 37582, Start Num: 47

Candidate Starts for Faith5x5_61:

(Start: 47 @36698 has 15 MA's), (50, 36752), (71, 36896), (78, 36935), (83, 36974), (89, 37046), (113, 37334),

Gene: Fancypants_78 Start: 47897, Stop: 48802, Start Num: 49

Candidate Starts for Fancypants_78:

(Start: 49 @47897 has 118 MA's), (56, 47984), (78, 48134), (86, 48212), (93, 48260), (96, 48275), (98, 48284), (118, 48632),

Gene: Floral_72 Start: 48274, Stop: 49224, Start Num: 49

Candidate Starts for Floral_72:

(9, 47968), (12, 47986), (25, 48121), (Start: 31 @48148 has 8 MA's), (34, 48181), (36, 48190), (38, 48211), (Start: 39 @48226 has 1 MA's), (42, 48235), (Start: 49 @48274 has 118 MA's), (62, 48406), (74, 48490), (83, 48547), (88, 48619), (118, 49051), (120, 49078), (123, 49105), (131, 49195),

Gene: Frankie_83 Start: 48012, Stop: 48923, Start Num: 49

Candidate Starts for Frankie_83:

(Start: 49 @48012 has 118 MA's), (56, 48099), (78, 48249), (93, 48375), (96, 48390), (114, 48675), (128, 48864),

Gene: FreddyB_82 Start: 47645, Stop: 48550, Start Num: 49

Candidate Starts for FreddyB_82:

(Start: 49 @47645 has 118 MA's), (56, 47732), (78, 47882), (86, 47960), (93, 48008), (96, 48023), (98, 48032), (118, 48380),

Gene: FroggyToad_66 Start: 42746, Stop: 43627, Start Num: 49

Candidate Starts for FroggyToad_66:

(30, 42617), (Start: 31 @42620 has 8 MA's), (38, 42683), (Start: 39 @42698 has 1 MA's), (42, 42707), (Start: 49 @42746 has 118 MA's), (50, 42800), (71, 42944), (78, 42983), (83, 43022), (87, 43073), (88, 43094),

Gene: Fulbright_62 Start: 38198, Stop: 39091, Start Num: 46

Candidate Starts for Fulbright_62:

(19, 37958), (33, 38096), (Start: 46 @38198 has 28 MA's), (52, 38267), (69, 38387), (79, 38441), (125, 39008),

Gene: Galactic_73 Start: 45921, Stop: 46826, Start Num: 49

Candidate Starts for Galactic_73:

(Start: 49 @45921 has 118 MA's), (56, 46008), (78, 46158), (86, 46236), (93, 46284), (96, 46299), (98, 46308), (118, 46656),

Gene: GemG_66 Start: 41468, Stop: 42349, Start Num: 49

Candidate Starts for GemG_66:

(Start: 31 @41342 has 8 MA's), (36, 41384), (38, 41405), (Start: 39 @41420 has 1 MA's), (42, 41429), (Start: 49 @41468 has 118 MA's), (50, 41522), (63, 41603), (71, 41666), (78, 41705), (83, 41744), (87, 41795), (88, 41816), (113, 42101), (120, 42203),

Gene: Gex_65 Start: 39520, Stop: 40413, Start Num: 46

Candidate Starts for Gex_65:

(19, 39280), (33, 39418), (Start: 46 @39520 has 28 MA's), (52, 39589), (69, 39709), (79, 39763), (125, 40330),

Gene: Gizermo_66 Start: 41464, Stop: 42345, Start Num: 49

Candidate Starts for Gizermo_66:

(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: Grimmer_83 Start: 46475, Stop: 47380, Start Num: 49

Candidate Starts for Grimmer_83:

(Start: 49 @46475 has 118 MA's), (56, 46562), (78, 46712), (86, 46790), (93, 46838), (96, 46853), (98, 46862), (118, 47210),

Gene: Hades_74 Start: 44660, Stop: 45565, Start Num: 49

Candidate Starts for Hades_74:

(Start: 49 @44660 has 118 MA's), (56, 44747), (78, 44897), (86, 44975), (93, 45023), (96, 45038), (98, 45047), (114, 45323),

Gene: Haley23_66 Start: 41464, Stop: 42345, Start Num: 49

Candidate Starts for Haley23_66:

(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: Hanako_60 Start: 38268, Stop: 39146, Start Num: 45

Candidate Starts for Hanako_60:

(Start: 44 @38262 has 1 MA's), (Start: 45 @38268 has 11 MA's), (56, 38358), (61, 38400), (72, 38469), (75, 38481), (99, 38631), (101, 38658), (109, 38793), (125, 39063),

Gene: Hegedechwinu_75 Start: 45050, Stop: 45955, Start Num: 49

Candidate Starts for Hegedechwinu_75:

(Start: 49 @45050 has 118 MA's), (56, 45137), (78, 45287), (86, 45365), (93, 45413), (96, 45428), (114, 45713),

Gene: Herod_72 Start: 48299, Stop: 49180, Start Num: 49

Candidate Starts for Herod_72:

(Start: 31 @48173 has 8 MA's), (36, 48215), (38, 48236), (Start: 39 @48251 has 1 MA's), (42, 48260), (Start: 49 @48299 has 118 MA's), (50, 48353), (63, 48434), (71, 48497), (78, 48536), (83, 48575), (87, 48626), (88, 48647), (113, 48932), (120, 49034),

Gene: Hugley_70 Start: 48279, Stop: 49160, Start Num: 49

Candidate Starts for Hugley_70:

(Start: 31 @48153 has 8 MA's), (36, 48195), (38, 48216), (Start: 39 @48231 has 1 MA's), (42, 48240), (Start: 49 @48279 has 118 MA's), (50, 48333), (63, 48414), (71, 48477), (78, 48516), (83, 48555), (87, 48606), (88, 48627), (113, 48912), (120, 49014),

Gene: Ibrahim_48 Start: 35522, Stop: 36403, Start Num: 49

Candidate Starts for Ibrahim_48:

(33, 35417), (43, 35483), (Start: 49 @35522 has 118 MA's), (57, 35621), (72, 35720), (75, 35732), (112, 36104), (113, 36149), (129, 36335),

Gene: JCole_63 Start: 40143, Stop: 41015, Start Num: 49

Candidate Starts for JCole_63:

(23, 39945), (Start: 31 @40011 has 8 MA's), (38, 40074), (Start: 39 @40089 has 1 MA's), (42, 40098), (Start: 49 @40143 has 118 MA's), (64, 40281), (66, 40308), (84, 40422), (103, 40560), (105, 40584),

Gene: Jablanski_74 Start: 49403, Stop: 50302, Start Num: 47

Candidate Starts for Jablanski_74:

(21, 49172), (27, 49268), (28, 49271), (32, 49301), (Start: 47 @49403 has 15 MA's), (51, 49469), (56, 49493), (64, 49544), (76, 49631), (78, 49646), (88, 49757), (129, 50246),

Gene: Jamie19_56 Start: 36936, Stop: 37826, Start Num: 46

Candidate Starts for Jamie19_56:

(41, 36894), (Start: 46 @36936 has 28 MA's), (52, 37005), (56, 37026), (69, 37125), (79, 37179), (91, 37284), (109, 37473), (125, 37743),

Gene: Job42_74 Start: 49242, Stop: 50147, Start Num: 49

Candidate Starts for Job42_74:

(24, 49074), (40, 49191), (Start: 49 @49242 has 118 MA's), (56, 49329), (78, 49479), (86, 49557), (93, 49605), (96, 49620), (98, 49629), (118, 49977),

Gene: Juniper1_72 Start: 45836, Stop: 46741, Start Num: 49

Candidate Starts for Juniper1_72:

(Start: 49 @45836 has 118 MA's), (56, 45923), (78, 46073), (86, 46151), (93, 46199), (96, 46214), (98, 46223), (118, 46571),

Gene: Karhdo_72 Start: 44899, Stop: 45804, Start Num: 49

Candidate Starts for Karhdo_72:

(Start: 49 @44899 has 118 MA's), (56, 44986), (78, 45136), (86, 45214), (93, 45262), (96, 45277), (98, 45286), (118, 45634),

Gene: Kersh_75 Start: 48085, Stop: 48990, Start Num: 49

Candidate Starts for Kersh_75:

(Start: 49 @48085 has 118 MA's), (56, 48172), (78, 48322), (86, 48400), (93, 48448), (96, 48463), (98, 48472), (118, 48820),

Gene: Kevin1_63 Start: 38051, Stop: 38941, Start Num: 46

Candidate Starts for Kevin1_63:

(41, 38009), (Start: 46 @38051 has 28 MA's), (52, 38120), (56, 38141), (69, 38240), (79, 38294), (91, 38399), (109, 38588), (125, 38858),

Gene: KingJulian_71 Start: 47337, Stop: 48242, Start Num: 49

Candidate Starts for KingJulian_71:

(Start: 49 @47337 has 118 MA's), (56, 47424), (78, 47574), (86, 47652), (93, 47700), (96, 47715), (114, 48000),

Gene: Kita_69 Start: 44757, Stop: 45833, Start Num: 31

Candidate Starts for Kita_69:

(Start: 31 @44757 has 8 MA's), (34, 44790), (38, 44820), (Start: 39 @44835 has 1 MA's), (42, 44844), (Start: 49 @44883 has 118 MA's), (62, 45015), (74, 45099), (82, 45150), (83, 45156), (88, 45228), (118, 45660), (120, 45687), (123, 45714), (131, 45804),

Gene: Lamberg_62 Start: 39973, Stop: 40854, Start Num: 49

Candidate Starts for Lamberg_62:

(Start: 31 @39847 has 8 MA's), (36, 39889), (38, 39910), (Start: 39 @39925 has 1 MA's), (42, 39934), (Start: 49 @39973 has 118 MA's), (50, 40027), (63, 40108), (71, 40171), (78, 40210), (83, 40249), (87, 40300), (88, 40321), (113, 40606), (120, 40708),

Gene: LilMoolah_72 Start: 46239, Stop: 47144, Start Num: 49

Candidate Starts for LilMoolah_72:

(Start: 49 @46239 has 118 MA's), (56, 46326), (78, 46476), (86, 46554), (93, 46602), (96, 46617), (98, 46626), (118, 46974),

Gene: Lilas_68 Start: 48407, Stop: 49297, Start Num: 47

Candidate Starts for Lilas_68:

(Start: 47 @48407 has 15 MA's), (56, 48494), (58, 48521), (64, 48545), (68, 48593), (70, 48602), (100, 48806), (113, 49049), (120, 49151),

Gene: LonelyBoi_69 Start: 48440, Stop: 49390, Start Num: 49

Candidate Starts for LonelyBoi_69:

(Start: 31 @48314 has 8 MA's), (38, 48377), (Start: 39 @48392 has 1 MA's), (42, 48401), (Start: 49 @48440 has 118 MA's), (82, 48707), (83, 48713), (88, 48785), (118, 49217), (120, 49244), (131, 49361),

Gene: LordFarquaad_68 Start: 43632, Stop: 44522, Start Num: 47

Candidate Starts for LordFarquaad_68:

(Start: 47 @43632 has 15 MA's), (56, 43719), (58, 43746), (64, 43770), (68, 43818), (70, 43827), (100, 44031),

Gene: LunaBlu_76 Start: 46579, Stop: 47484, Start Num: 49

Candidate Starts for LunaBlu_76:

(Start: 49 @46579 has 118 MA's), (56, 46666), (78, 46816), (86, 46894), (93, 46942), (96, 46957), (98, 46966), (118, 47314),

Gene: LunaStella_73 Start: 46014, Stop: 46916, Start Num: 49

Candidate Starts for LunaStella_73:

(Start: 49 @46014 has 118 MA's), (56, 46101), (78, 46251), (86, 46329), (93, 46377), (96, 46392), (114, 46677),

Gene: Magsby_63 Start: 39466, Stop: 40359, Start Num: 46

Candidate Starts for Magsby_63:

(19, 39226), (33, 39364), (Start: 46 @39466 has 28 MA's), (52, 39535), (69, 39655), (79, 39709), (125, 40276),

Gene: Mahavrat_70 Start: 44044, Stop: 44949, Start Num: 49

Candidate Starts for Mahavrat_70:

(Start: 49 @44044 has 118 MA's), (56, 44131), (78, 44281), (86, 44359), (93, 44407), (96, 44422), (98, 44431), (118, 44779),

Gene: MakCheese_77 Start: 48332, Stop: 48976, Start Num: 78

Candidate Starts for MakCheese_77:

(Start: 31 @47969 has 8 MA's), (38, 48032), (Start: 39 @48047 has 1 MA's), (42, 48056), (Start: 49 @48095 has 118 MA's), (50, 48149), (71, 48293), (78, 48332), (85, 48398), (88, 48443), (113, 48728),

Gene: Malisha_88 Start: 51421, Stop: 52305, Start Num: 47

Candidate Starts for Malisha_88:

(8, 51109), (Start: 47 @51421 has 15 MA's), (50, 51475), (63, 51556), (71, 51619), (78, 51658), (83, 51697), (87, 51748), (89, 51769), (113, 52057),

Gene: Manasvini_70 Start: 44898, Stop: 45848, Start Num: 49

Candidate Starts for Manasvini_70:

(Start: 31 @44772 has 8 MA's), (34, 44805), (38, 44835), (Start: 39 @44850 has 1 MA's), (42, 44859), (Start: 49 @44898 has 118 MA's), (62, 45030), (74, 45114), (82, 45165), (83, 45171), (88, 45243), (118, 45675), (120, 45702), (123, 45729), (131, 45819),

Gene: Mantra_71 Start: 45873, Stop: 46778, Start Num: 49

Candidate Starts for Mantra_71:

(Start: 49 @45873 has 118 MA's), (56, 45960), (78, 46110), (86, 46188), (93, 46236), (96, 46251), (98, 46260), (118, 46608),

Gene: Marteena_70 Start: 46386, Stop: 47267, Start Num: 49

Candidate Starts for Marteena_70:

(16, 46119), (Start: 31 @46260 has 8 MA's), (36, 46302), (38, 46323), (Start: 39 @46338 has 1 MA's), (42, 46347), (Start: 49 @46386 has 118 MA's), (50, 46440), (63, 46521), (71, 46584), (78, 46623), (83, 46662), (87, 46713), (88, 46734), (108, 46896), (127, 47202),

Gene: Matteo_60 Start: 39987, Stop: 40886, Start Num: 47

Candidate Starts for Matteo_60:

(18, 39774), (23, 39819), (Start: 47 @39987 has 15 MA's), (51, 40053), (56, 40077), (64, 40128), (76, 40215), (78, 40230), (88, 40341), (113, 40638), (120, 40740),

Gene: Mcklovin_68 Start: 48730, Stop: 49602, Start Num: 49

Candidate Starts for Mcklovin_68:

(30, 48607), (Start: 31 @48610 has 8 MA's), (36, 48652), (38, 48673), (Start: 39 @48688 has 1 MA's), (42, 48697), (Start: 49 @48730 has 118 MA's), (65, 48880), (77, 48964), (88, 49078), (95, 49096), (113, 49354),

Gene: Melville_69 Start: 39075, Stop: 39968, Start Num: 46

Candidate Starts for Melville_69:

(19, 38835), (33, 38973), (Start: 46 @39075 has 28 MA's), (52, 39144), (69, 39264), (79, 39318), (125, 39885),

Gene: Mendokysej_46 Start: 34624, Stop: 35529, Start Num: 47

Candidate Starts for Mendokysej_46:

(Start: 47 @34624 has 15 MA's), (58, 34741), (69, 34813), (79, 34867), (91, 34972), (129, 35461),

Gene: MichelleMyBell_62 Start: 37899, Stop: 38789, Start Num: 46

Candidate Starts for MichelleMyBell_62:

(41, 37857), (Start: 46 @37899 has 28 MA's), (52, 37968), (56, 37989), (69, 38088), (79, 38142), (91, 38247), (109, 38436), (125, 38706),

Gene: MilleniumForce_74 Start: 46544, Stop: 47449, Start Num: 49

Candidate Starts for MilleniumForce_74:

(24, 46376), (40, 46493), (Start: 49 @46544 has 118 MA's), (56, 46631), (78, 46781), (86, 46859), (93, 46907), (96, 46922), (114, 47207),

Gene: Mocha12_66 Start: 41464, Stop: 42345, Start Num: 49

Candidate Starts for Mocha12_66:

(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: Moonbeam_74 Start: 46691, Stop: 47596, Start Num: 49

Candidate Starts for Moonbeam_74:

(Start: 49 @46691 has 118 MA's), (56, 46778), (78, 46928), (86, 47006), (93, 47054), (96, 47069), (98, 47078), (118, 47426),

Gene: MulchSalad_83 Start: 48676, Stop: 49581, Start Num: 49

Candidate Starts for MulchSalad_83:

(Start: 49 @48676 has 118 MA's), (56, 48763), (78, 48913), (93, 49039), (96, 49054), (98, 49063), (114, 49339),

Gene: Mutaforma13_79 Start: 47293, Stop: 48198, Start Num: 49

Candidate Starts for Mutaforma13_79:

(Start: 49 @47293 has 118 MA's), (56, 47380), (78, 47530), (86, 47608), (93, 47656), (96, 47671), (98, 47680),

Gene: Nairb_47 Start: 35076, Stop: 35957, Start Num: 49

Candidate Starts for Nairb_47:

(33, 34971), (43, 35037), (Start: 49 @35076 has 118 MA's), (57, 35175), (72, 35274), (75, 35286), (112, 35658), (113, 35703), (129, 35889),

Gene: Nenae_61 Start: 38270, Stop: 39148, Start Num: 45

Candidate Starts for Nenae_61:

(Start: 44 @38264 has 1 MA's), (Start: 45 @38270 has 11 MA's), (56, 38360), (61, 38402), (72, 38471), (75, 38483), (99, 38633), (101, 38660), (109, 38795), (125, 39065),

Gene: Neobush_70 Start: 45442, Stop: 46392, Start Num: 49

Candidate Starts for Neobush_70:

(Start: 31 @45316 has 8 MA's), (34, 45349), (38, 45379), (Start: 39 @45394 has 1 MA's), (42, 45403), (Start: 49 @45442 has 118 MA's), (62, 45574), (74, 45658), (82, 45709), (83, 45715), (88, 45787), (118, 46219), (120, 46246), (123, 46273), (131, 46363),

Gene: Nette_49 Start: 34633, Stop: 35538, Start Num: 47

Candidate Starts for Nette_49:

(Start: 47 @34633 has 15 MA's), (58, 34750), (69, 34822), (79, 34876), (91, 34981), (129, 35470),

Gene: Nettuno_63 Start: 40349, Stop: 41299, Start Num: 49

Candidate Starts for Nettuno_63:

(9, 40043), (12, 40061), (25, 40196), (Start: 31 @40223 has 8 MA's), (34, 40256), (38, 40286), (Start: 39 @40301 has 1 MA's), (42, 40310), (Start: 49 @40349 has 118 MA's), (54, 40427), (62, 40481), (74, 40565), (82, 40616), (83, 40622), (102, 40811), (118, 41126), (120, 41153), (123, 41180), (131, 41270),

Gene: NewHope4_76 Start: 44489, Stop: 45394, Start Num: 49

Candidate Starts for NewHope4_76:

(Start: 49 @44489 has 118 MA's), (56, 44576), (78, 44726), (86, 44804), (93, 44852), (96, 44867), (98, 44876), (118, 45224),

Gene: Nitzel_69 Start: 43645, Stop: 44598, Start Num: 46

Candidate Starts for Nitzel_69:

(Start: 46 @43645 has 28 MA's), (52, 43714), (55, 43729), (56, 43735), (67, 43816), (72, 43858), (80, 43912), (90, 44020), (92, 44032), (97, 44068), (110, 44296), (115, 44368), (119, 44437), (132, 44584),

Gene: Nivrat_70 Start: 46112, Stop: 47017, Start Num: 49

Candidate Starts for Nivrat_70:

(Start: 49 @46112 has 118 MA's), (56, 46199), (78, 46349), (86, 46427), (93, 46475), (96, 46490), (98, 46499), (118, 46847),

Gene: Nymphadora_72 Start: 47904, Stop: 48785, Start Num: 49

Candidate Starts for Nymphadora_72:

(Start: 31 @47778 has 8 MA's), (36, 47820), (38, 47841), (Start: 39 @47856 has 1 MA's), (42, 47865), (Start: 49 @47904 has 118 MA's), (50, 47958), (63, 48039), (71, 48102), (78, 48141), (83, 48180), (87, 48231), (88, 48252), (113, 48537), (120, 48639),

Gene: Oksu_78 Start: 48039, Stop: 48944, Start Num: 49

Candidate Starts for Oksu_78:

(24, 47871), (40, 47988), (Start: 49 @48039 has 118 MA's), (56, 48126), (78, 48276), (86, 48354), (93, 48402), (96, 48417), (98, 48426), (118, 48774),

Gene: Ovechkin_77 Start: 46874, Stop: 47779, Start Num: 49

Candidate Starts for Ovechkin_77:

(Start: 49 @46874 has 118 MA's), (56, 46961), (78, 47111), (86, 47189), (93, 47237), (96, 47252), (114, 47537),

Gene: OwlsT2W_76 Start: 46405, Stop: 47310, Start Num: 49

Candidate Starts for OwlsT2W_76:

(Start: 49 @46405 has 118 MA's), (56, 46492), (78, 46642), (86, 46720), (93, 46768), (98, 46792), (114, 47068),

Gene: PMC_68 Start: 44894, Stop: 45799, Start Num: 49

Candidate Starts for PMC_68:

(24, 44726), (40, 44843), (Start: 49 @44894 has 118 MA's), (56, 44981), (78, 45131), (86, 45209), (93, 45257), (96, 45272), (114, 45557),

Gene: Pacc40_67 Start: 46139, Stop: 47044, Start Num: 49

Candidate Starts for Pacc40_67:

(Start: 49 @46139 has 118 MA's), (56, 46226), (78, 46376), (86, 46454), (93, 46502), (96, 46517), (98, 46526), (118, 46874),

Gene: PantheRoc_74 Start: 47598, Stop: 48479, Start Num: 49

Candidate Starts for PantheRoc_74:

(Start: 31 @47472 has 8 MA's), (36, 47514), (38, 47535), (Start: 39 @47550 has 1 MA's), (42, 47559), (Start: 49 @47598 has 118 MA's), (50, 47652), (63, 47733), (71, 47796), (78, 47835), (83, 47874), (87, 47925), (88, 47946), (113, 48231), (120, 48333),

Gene: Parmesanjohn_64 Start: 39524, Stop: 40417, Start Num: 46

Candidate Starts for Parmesanjohn_64:

(19, 39284), (33, 39422), (Start: 46 @39524 has 28 MA's), (52, 39593), (69, 39713), (79, 39767), (125, 40334),

Gene: Pepperoni_59 Start: 36710, Stop: 37591, Start Num: 47

Candidate Starts for Pepperoni_59:

(Start: 47 @36710 has 15 MA's), (50, 36764), (71, 36908), (78, 36947), (89, 37058), (113, 37343),

Gene: Persistence_74 Start: 43581, Stop: 44438, Start Num: 48

Candidate Starts for Persistence_74:

(37, 43503), (Start: 48 @43581 has 2 MA's), (56, 43668), (58, 43695), (66, 43746), (71, 43779), (77, 43815), (78, 43818), (106, 44037), (124, 44331), (133, 44412),

Gene: PhancyPhin_61 Start: 38264, Stop: 39142, Start Num: 45

Candidate Starts for PhancyPhin_61:

(Start: 44 @38258 has 1 MA's), (Start: 45 @38264 has 11 MA's), (56, 38354), (61, 38396), (72, 38465), (75, 38477), (99, 38627), (101, 38654), (109, 38789), (125, 39059),

Gene: Phasih_70 Start: 45082, Stop: 45987, Start Num: 49

Candidate Starts for Phasih_70:

(24, 44914), (40, 45031), (Start: 49 @45082 has 118 MA's), (56, 45169), (78, 45319), (86, 45397), (93, 45445), (96, 45460), (98, 45469), (118, 45817),

Gene: Philonius_64 Start: 39689, Stop: 40582, Start Num: 46

Candidate Starts for Philonius_64:

(19, 39449), (33, 39587), (Start: 46 @39689 has 28 MA's), (52, 39758), (69, 39878), (79, 39932), (125, 40499),

Gene: PhlipPhlop_74 Start: 50231, Stop: 51136, Start Num: 49

Candidate Starts for PhlipPhlop_74:

(Start: 49 @50231 has 118 MA's), (56, 50318), (78, 50468), (86, 50546), (93, 50594), (96, 50609), (98, 50618), (118, 50966),

Gene: Phloss_62 Start: 38931, Stop: 39824, Start Num: 46

Candidate Starts for Phloss_62:

(19, 38691), (33, 38829), (Start: 46 @38931 has 28 MA's), (52, 39000), (69, 39120), (79, 39174), (125, 39741),

Gene: Phrann_60 Start: 40807, Stop: 41691, Start Num: 44

Candidate Starts for Phrann_60:

(33, 40732), (Start: 44 @40807 has 1 MA's), (Start: 45 @40813 has 11 MA's), (56, 40903), (61, 40945), (72, 41014), (75, 41026), (99, 41176), (101, 41203), (109, 41338), (125, 41608),

Gene: PhriskyACE_65 Start: 42694, Stop: 43641, Start Num: 49

Candidate Starts for PhriskyACE_65:

(Start: 31 @42574 has 8 MA's), (38, 42637), (42, 42661), (Start: 49 @42694 has 118 MA's), (62, 42826), (74, 42910), (82, 42961), (83, 42967), (88, 43039), (102, 43156), (113, 43393), (115, 43405),

Gene: Pickett_63 Start: 40108, Stop: 41058, Start Num: 49

Candidate Starts for Pickett_63:

(Start: 31 @39982 has 8 MA's), (34, 40015), (38, 40045), (Start: 39 @40060 has 1 MA's), (Start: 49 @40108 has 118 MA's), (62, 40240), (74, 40324), (83, 40381), (102, 40570), (118, 40885), (120, 40912), (123, 40939), (131, 41029),

Gene: Pipsqueaks_65 Start: 39502, Stop: 40395, Start Num: 46

Candidate Starts for Pipsqueaks_65:

(19, 39262), (33, 39400), (Start: 46 @39502 has 28 MA's), (52, 39571), (69, 39691), (79, 39745), (125, 40312),

Gene: Plumbus_75 Start: 43831, Stop: 44736, Start Num: 49

Candidate Starts for Plumbus_75:

(24, 43663), (40, 43780), (Start: 49 @43831 has 118 MA's), (56, 43918), (78, 44068), (86, 44146), (93, 44194), (96, 44209), (98, 44218), (114, 44494),

Gene: Pollux_74 Start: 48274, Stop: 49224, Start Num: 49

Candidate Starts for Pollux_74:

(9, 47968), (12, 47986), (25, 48121), (Start: 31 @48148 has 8 MA's), (34, 48181), (36, 48190), (38, 48211), (Start: 39 @48226 has 1 MA's), (42, 48235), (Start: 49 @48274 has 118 MA's), (62, 48406), (74, 48490), (83, 48547), (88, 48619), (118, 49051), (120, 49078), (123, 49105), (131, 49195),

Gene: Polly_65 Start: 44191, Stop: 45267, Start Num: 31

Candidate Starts for Polly_65:

(Start: 31 @44191 has 8 MA's), (34, 44224), (38, 44254), (Start: 39 @44269 has 1 MA's), (42, 44278), (Start: 49 @44317 has 118 MA's), (62, 44449), (74, 44533), (82, 44584), (83, 44590), (88, 44662), (118, 45094), (120, 45121), (123, 45148), (131, 45238),

Gene: Pollywog_74 Start: 47154, Stop: 48059, Start Num: 49

Candidate Starts for Pollywog_74:

(24, 46986), (40, 47103), (Start: 49 @47154 has 118 MA's), (56, 47241), (78, 47391), (86, 47469), (93, 47517), (96, 47532), (98, 47541), (118, 47889),

Gene: Polo2Bam_80 Start: 44343, Stop: 45248, Start Num: 49

Candidate Starts for Polo2Bam_80:

(Start: 49 @44343 has 118 MA's), (56, 44430), (78, 44580), (86, 44658), (93, 44706), (96, 44721), (98, 44730), (118, 45078),

Gene: Posh_72 Start: 48148, Stop: 49098, Start Num: 49

Candidate Starts for Posh_72:

(17, 47902), (Start: 31 @48022 has 8 MA's), (38, 48085), (Start: 39 @48100 has 1 MA's), (42, 48109), (Start: 49 @48148 has 118 MA's), (74, 48364), (82, 48415), (83, 48421), (118, 48925), (120, 48952), (123, 48979),

Gene: Powerball_66 Start: 42677, Stop: 43744, Start Num: 31

Candidate Starts for Powerball_66:

(Start: 31 @42677 has 8 MA's), (38, 42740), (42, 42764), (Start: 49 @42797 has 118 MA's), (62, 42929), (74, 43013), (82, 43064), (83, 43070), (88, 43142), (102, 43259), (113, 43496), (115, 43508),

Gene: Purgamenstris_61 Start: 38268, Stop: 39146, Start Num: 45

Candidate Starts for Purgamenstris_61:

(Start: 44 @38262 has 1 MA's), (Start: 45 @38268 has 11 MA's), (56, 38358), (61, 38400), (72, 38469), (75, 38481), (99, 38631), (101, 38658), (109, 38793), (125, 39063),

Gene: Pytheas_75 Start: 49402, Stop: 50301, Start Num: 47

Candidate Starts for Pytheas_75:

(21, 49171), (27, 49267), (28, 49270), (32, 49300), (Start: 47 @49402 has 15 MA's), (51, 49468), (56, 49492), (64, 49543), (76, 49630), (78, 49645), (88, 49756), (129, 50245),

Gene: Radiance_72 Start: 46899, Stop: 47804, Start Num: 49

Candidate Starts for Radiance_72:

(Start: 49 @46899 has 118 MA's), (56, 46986), (78, 47136), (86, 47214), (93, 47262), (94, 47265), (96, 47277), (98, 47286), (118, 47634),

Gene: Ramsey_77 Start: 48381, Stop: 49286, Start Num: 49

Candidate Starts for Ramsey_77:

(Start: 49 @48381 has 118 MA's), (56, 48468), (78, 48618), (86, 48696), (93, 48744), (96, 48759), (98, 48768), (118, 49116),

Gene: Raymond7_54 Start: 38056, Stop: 38934, Start Num: 45

Candidate Starts for Raymond7_54:

(Start: 44 @38050 has 1 MA's), (Start: 45 @38056 has 11 MA's), (56, 38146), (61, 38188), (72, 38257), (75, 38269), (99, 38419), (101, 38446), (109, 38581), (125, 38851),

Gene: Rebel_58 Start: 36361, Stop: 37251, Start Num: 46

Candidate Starts for Rebel_58:

(Start: 46 @36361 has 28 MA's), (52, 36430), (56, 36451), (69, 36550), (79, 36604), (91, 36709), (109, 36898), (125, 37168),

Gene: Redi_61 Start: 38267, Stop: 39145, Start Num: 45

Candidate Starts for Redi_61:

(Start: 44 @38261 has 1 MA's), (Start: 45 @38267 has 11 MA's), (56, 38357), (61, 38399), (72, 38468), (75, 38480), (99, 38630), (101, 38657), (109, 38792), (125, 39062),

Gene: Rialto_81 Start: 47773, Stop: 48678, Start Num: 49

Candidate Starts for Rialto_81:

(Start: 49 @47773 has 118 MA's), (56, 47860), (78, 48010), (86, 48088), (93, 48136), (96, 48151), (98, 48160), (118, 48508),

Gene: Rockne_72 Start: 44906, Stop: 45811, Start Num: 49

Candidate Starts for Rockne_72:

(24, 44738), (40, 44855), (Start: 49 @44906 has 118 MA's), (56, 44993), (78, 45143), (86, 45221), (93, 45269), (96, 45284), (114, 45569),

Gene: RockyHorror_74 Start: 45465, Stop: 46370, Start Num: 49
Candidate Starts for RockyHorror_74:
(Start: 49 @45465 has 118 MA's), (56, 45552), (78, 45702), (86, 45780), (93, 45828), (96, 45843), (98, 45852), (118, 46200),

Gene: RonRayGun_48 Start: 35522, Stop: 36403, Start Num: 49
Candidate Starts for RonRayGun_48:
(33, 35417), (43, 35483), (Start: 49 @35522 has 118 MA's), (57, 35621), (72, 35720), (75, 35732), (112, 36104), (113, 36149), (129, 36335),

Gene: Royals2015_80 Start: 46425, Stop: 47330, Start Num: 49
Candidate Starts for Royals2015_80:
(24, 46257), (40, 46374), (Start: 49 @46425 has 118 MA's), (56, 46512), (78, 46662), (86, 46740), (93, 46788), (98, 46812), (118, 47160),

Gene: Rubeelu_60 Start: 37566, Stop: 38435, Start Num: 45
Candidate Starts for Rubeelu_60:
(14, 37308), (22, 37386), (Start: 44 @37560 has 1 MA's), (Start: 45 @37566 has 11 MA's), (61, 37698), (72, 37767), (75, 37779), (109, 38082), (125, 38352),

Gene: Sabbb_75 Start: 44060, Stop: 44965, Start Num: 49
Candidate Starts for Sabbb_75:
(Start: 49 @44060 has 118 MA's), (56, 44147), (78, 44297), (86, 44375), (93, 44423), (96, 44438), (98, 44447), (118, 44795),

Gene: Sahara_65 Start: 41267, Stop: 42166, Start Num: 47
Candidate Starts for Sahara_65:
(18, 41054), (23, 41099), (Start: 47 @41267 has 15 MA's), (51, 41333), (56, 41357), (64, 41408), (76, 41495), (78, 41510), (88, 41621), (113, 41918), (120, 42020),

Gene: Sarma624_72 Start: 43039, Stop: 43944, Start Num: 49
Candidate Starts for Sarma624_72:
(Start: 49 @43039 has 118 MA's), (56, 43126), (78, 43276), (86, 43354), (93, 43402), (96, 43417), (98, 43426), (114, 43702),

Gene: Savage_66 Start: 41464, Stop: 42345, Start Num: 49
Candidate Starts for Savage_66:
(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: Schnauzer_65 Start: 39524, Stop: 40417, Start Num: 46
Candidate Starts for Schnauzer_65:
(19, 39284), (33, 39422), (Start: 46 @39524 has 28 MA's), (52, 39593), (69, 39713), (79, 39767), (125, 40334),

Gene: Scitech_59 Start: 38927, Stop: 39820, Start Num: 46
Candidate Starts for Scitech_59:
(6, 38576), (7, 38594), (19, 38687), (20, 38690), (33, 38825), (Start: 46 @38927 has 28 MA's), (52, 38996), (69, 39116), (79, 39170), (125, 39737),

Gene: Sekhmet_67 Start: 42546, Stop: 43427, Start Num: 49

Candidate Starts for Sekhmet_67:

(Start: 31 @42420 has 8 MA's), (36, 42462), (38, 42483), (Start: 39 @42498 has 1 MA's), (42, 42507), (Start: 49 @42546 has 118 MA's), (50, 42600), (71, 42744), (78, 42783), (85, 42849), (88, 42894), (113, 43179),

Gene: ShiLan_75 Start: 49014, Stop: 49925, Start Num: 49

Candidate Starts for ShiLan_75:

(Start: 49 @49014 has 118 MA's), (56, 49101), (78, 49251), (86, 49329), (93, 49377), (96, 49392), (98, 49401), (114, 49677), (128, 49866),

Gene: ShrimpFriedEgg_61 Start: 38267, Stop: 39145, Start Num: 45

Candidate Starts for ShrimpFriedEgg_61:

(Start: 44 @38261 has 1 MA's), (Start: 45 @38267 has 11 MA's), (56, 38357), (61, 38399), (72, 38468), (75, 38480), (99, 38630), (101, 38657), (109, 38792), (125, 39062),

Gene: Shukran_77 Start: 44448, Stop: 45305, Start Num: 48

Candidate Starts for Shukran_77:

(Start: 48 @44448 has 2 MA's), (56, 44535), (66, 44613), (71, 44646), (77, 44682), (78, 44685), (106, 44904), (124, 45198), (133, 45279),

Gene: Shweta_59 Start: 38499, Stop: 39377, Start Num: 45

Candidate Starts for Shweta_59:

(1, 38097), (2, 38100), (11, 38217), (13, 38235), (33, 38418), (Start: 44 @38493 has 1 MA's), (Start: 45 @38499 has 11 MA's), (56, 38589), (61, 38631), (72, 38700), (75, 38712), (99, 38862), (101, 38889), (109, 39024), (125, 39294),

Gene: Sidious_69 Start: 47185, Stop: 48066, Start Num: 49

Candidate Starts for Sidious_69:

(12, 46897), (38, 47122), (Start: 39 @47137 has 1 MA's), (42, 47146), (Start: 49 @47185 has 118 MA's), (50, 47239), (71, 47383), (78, 47422), (83, 47461), (87, 47512), (88, 47533),

Gene: Silvafighter_66 Start: 39067, Stop: 39960, Start Num: 46

Candidate Starts for Silvafighter_66:

(19, 38827), (26, 38923), (33, 38965), (Start: 46 @39067 has 28 MA's), (52, 39136), (69, 39256), (79, 39310), (125, 39877),

Gene: Silvy_60 Start: 40157, Stop: 41050, Start Num: 46

Candidate Starts for Silvy_60:

(19, 39917), (33, 40055), (Start: 46 @40157 has 28 MA's), (52, 40226), (69, 40346), (79, 40400), (125, 40967),

Gene: SimranZ1_74 Start: 45498, Stop: 46403, Start Num: 49

Candidate Starts for SimranZ1_74:

(Start: 49 @45498 has 118 MA's), (56, 45585), (78, 45735), (86, 45813), (93, 45861), (96, 45876), (98, 45885), (118, 46233),

Gene: SkinnyPete_61 Start: 39271, Stop: 40164, Start Num: 46

Candidate Starts for SkinnyPete_61:

(19, 39031), (33, 39169), (Start: 46 @39271 has 28 MA's), (52, 39340), (69, 39460), (79, 39514), (125, 40081),

Gene: Slim_76 Start: 46391, Stop: 47296, Start Num: 49

Candidate Starts for Slim_76:

(Start: 49 @46391 has 118 MA's), (56, 46478), (78, 46628), (86, 46706), (93, 46754), (96, 46769), (98, 46778), (118, 47126),

Gene: Smurph_64 Start: 39524, Stop: 40417, Start Num: 46

Candidate Starts for Smurph_64:

(19, 39284), (33, 39422), (Start: 46 @39524 has 28 MA's), (52, 39593), (69, 39713), (79, 39767), (125, 40334),

Gene: Snekmaggedon_56 Start: 36936, Stop: 37826, Start Num: 46

Candidate Starts for Snekmaggedon_56:

(41, 36894), (Start: 46 @36936 has 28 MA's), (52, 37005), (56, 37026), (69, 37125), (79, 37179), (91, 37284), (109, 37473), (125, 37743),

Gene: SoilAssassin_65 Start: 43650, Stop: 44540, Start Num: 47

Candidate Starts for SoilAssassin_65:

(Start: 47 @43650 has 15 MA's), (56, 43737), (58, 43764), (64, 43788), (68, 43836), (70, 43845), (100, 44049),

Gene: Sparkdehlily_78 Start: 44957, Stop: 45868, Start Num: 49

Candidate Starts for Sparkdehlily_78:

(24, 44789), (40, 44906), (Start: 49 @44957 has 118 MA's), (56, 45044), (78, 45194), (86, 45272), (93, 45320), (96, 45335), (98, 45344), (114, 45620), (128, 45809),

Gene: Spartacus_78 Start: 48592, Stop: 49497, Start Num: 49

Candidate Starts for Spartacus_78:

(24, 48424), (40, 48541), (Start: 49 @48592 has 118 MA's), (56, 48679), (78, 48829), (86, 48907), (93, 48955), (96, 48970), (98, 48979), (118, 49327),

Gene: Spikelee_80 Start: 48482, Stop: 49387, Start Num: 49

Candidate Starts for Spikelee_80:

(Start: 49 @48482 has 118 MA's), (56, 48569), (78, 48719), (86, 48797), (93, 48845), (96, 48860), (114, 49145),

Gene: SpongeBob_56 Start: 36936, Stop: 37826, Start Num: 46

Candidate Starts for SpongeBob_56:

(41, 36894), (Start: 46 @36936 has 28 MA's), (52, 37005), (56, 37026), (69, 37125), (79, 37179), (91, 37284), (109, 37473), (125, 37743),

Gene: Sproutie_66 Start: 41464, Stop: 42345, Start Num: 49

Candidate Starts for Sproutie_66:

(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: Starcevich_74 Start: 47456, Stop: 48361, Start Num: 49

Candidate Starts for Starcevich_74:

(Start: 49 @47456 has 118 MA's), (56, 47543), (78, 47693), (86, 47771), (93, 47819), (96, 47834), (98, 47843), (114, 48119), (118, 48191),

Gene: Suerte_62 Start: 42161, Stop: 43042, Start Num: 49

Candidate Starts for Suerte_62:

(15, 41882), (25, 42011), (Start: 31 @42035 has 8 MA's), (38, 42098), (Start: 39 @42113 has 1 MA's), (42, 42122), (Start: 49 @42161 has 118 MA's), (50, 42215), (65, 42311), (71, 42359), (78, 42398), (85,

42464), (88, 42509), (120, 42896),

Gene: Suscepit_68 Start: 44875, Stop: 45825, Start Num: 49

Candidate Starts for Suscepit_68:

(Start: 31 @44749 has 8 MA's), (34, 44782), (38, 44812), (Start: 39 @44827 has 1 MA's), (42, 44836), (Start: 49 @44875 has 118 MA's), (62, 45007), (74, 45091), (82, 45142), (83, 45148), (88, 45220), (118, 45652), (120, 45679), (123, 45706), (131, 45796),

Gene: TChen_75 Start: 47965, Stop: 48867, Start Num: 49

Candidate Starts for TChen_75:

(Start: 49 @47965 has 118 MA's), (56, 48052), (78, 48202), (86, 48280), (93, 48328), (96, 48343), (114, 48628),

Gene: TDanisky_78 Start: 44957, Stop: 45868, Start Num: 49

Candidate Starts for TDanisky_78:

(24, 44789), (40, 44906), (Start: 49 @44957 has 118 MA's), (56, 45044), (78, 45194), (86, 45272), (93, 45320), (96, 45335), (98, 45344), (114, 45620), (128, 45809),

Gene: Tapioca_62 Start: 40041, Stop: 40934, Start Num: 46

Candidate Starts for Tapioca_62:

(19, 39801), (33, 39939), (Start: 46 @40041 has 28 MA's), (52, 40110), (69, 40230), (79, 40284), (125, 40851),

Gene: Tayonia_68 Start: 44874, Stop: 45824, Start Num: 49

Candidate Starts for Tayonia_68:

(Start: 31 @44748 has 8 MA's), (34, 44781), (38, 44811), (Start: 39 @44826 has 1 MA's), (42, 44835), (Start: 49 @44874 has 118 MA's), (62, 45006), (74, 45090), (82, 45141), (83, 45147), (88, 45219), (118, 45651), (120, 45678), (123, 45705), (131, 45795),

Gene: TimTam_72 Start: 47904, Stop: 48785, Start Num: 49

Candidate Starts for TimTam_72:

(Start: 31 @47778 has 8 MA's), (36, 47820), (38, 47841), (Start: 39 @47856 has 1 MA's), (42, 47865), (Start: 49 @47904 has 118 MA's), (50, 47958), (63, 48039), (71, 48102), (78, 48141), (83, 48180), (87, 48231), (88, 48252), (113, 48537), (120, 48639),

Gene: Tortoise12_62 Start: 38645, Stop: 39538, Start Num: 46

Candidate Starts for Tortoise12_62:

(19, 38405), (33, 38543), (Start: 46 @38645 has 28 MA's), (52, 38714), (69, 38834), (79, 38888), (125, 39455),

Gene: Trumpet_68 Start: 44875, Stop: 45825, Start Num: 49

Candidate Starts for Trumpet_68:

(Start: 31 @44749 has 8 MA's), (34, 44782), (38, 44812), (Start: 39 @44827 has 1 MA's), (42, 44836), (Start: 49 @44875 has 118 MA's), (62, 45007), (74, 45091), (82, 45142), (83, 45148), (88, 45220), (118, 45652), (120, 45679), (123, 45706), (131, 45796),

Gene: TuertoX_66 Start: 41464, Stop: 42345, Start Num: 49

Candidate Starts for TuertoX_66:

(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: VRedHorse_73 Start: 44118, Stop: 45023, Start Num: 49

Candidate Starts for VRedHorse_73:

(Start: 49 @44118 has 118 MA's), (56, 44205), (78, 44355), (86, 44433), (93, 44481), (96, 44496), (98, 44505), (118, 44853),

Gene: Velveteen_68 Start: 43039, Stop: 43944, Start Num: 49

Candidate Starts for Velveteen_68:

(Start: 49 @43039 has 118 MA's), (56, 43126), (78, 43276), (86, 43354), (93, 43402), (96, 43417), (98, 43426), (114, 43702),

Gene: Violac_77 Start: 47313, Stop: 48218, Start Num: 49

Candidate Starts for Violac_77:

(Start: 49 @47313 has 118 MA's), (56, 47400), (78, 47550), (86, 47628), (93, 47676), (96, 47691), (98, 47700), (118, 48048),

Gene: Whiteclaw_66 Start: 41464, Stop: 42345, Start Num: 49

Candidate Starts for Whiteclaw_66:

(Start: 31 @41338 has 8 MA's), (36, 41380), (38, 41401), (Start: 39 @41416 has 1 MA's), (42, 41425), (Start: 49 @41464 has 118 MA's), (50, 41518), (63, 41599), (71, 41662), (78, 41701), (83, 41740), (87, 41791), (88, 41812), (113, 42097), (120, 42199),

Gene: Whitty_47 Start: 35077, Stop: 35958, Start Num: 49

Candidate Starts for Whitty_47:

(33, 34972), (43, 35038), (Start: 49 @35077 has 118 MA's), (57, 35176), (72, 35275), (75, 35287), (112, 35659), (113, 35704), (129, 35890),

Gene: WinkNick_68 Start: 42070, Stop: 42951, Start Num: 49

Candidate Starts for WinkNick_68:

(Start: 31 @41944 has 8 MA's), (36, 41986), (38, 42007), (Start: 39 @42022 has 1 MA's), (42, 42031), (Start: 49 @42070 has 118 MA's), (50, 42124), (71, 42268), (78, 42307), (85, 42373), (88, 42418), (113, 42703),

Gene: Wrigley_74 Start: 47731, Stop: 48681, Start Num: 49

Candidate Starts for Wrigley_74:

(17, 47485), (Start: 31 @47605 has 8 MA's), (38, 47668), (Start: 39 @47683 has 1 MA's), (42, 47692), (Start: 49 @47731 has 118 MA's), (74, 47947), (82, 47998), (83, 48004), (118, 48508), (120, 48535), (123, 48562),

Gene: Xerxes_64 Start: 39521, Stop: 40414, Start Num: 46

Candidate Starts for Xerxes_64:

(19, 39281), (33, 39419), (Start: 46 @39521 has 28 MA's), (52, 39590), (69, 39710), (79, 39764), (125, 40331),

Gene: Yeet412_64 Start: 42394, Stop: 43344, Start Num: 49

Candidate Starts for Yeet412_64:

(Start: 31 @42268 has 8 MA's), (34, 42301), (38, 42331), (Start: 39 @42346 has 1 MA's), (Start: 49 @42394 has 118 MA's), (62, 42526), (74, 42610), (83, 42667), (102, 42856), (118, 43171), (120, 43198), (123, 43225), (131, 43315),

Gene: Zameen_68 Start: 44874, Stop: 45824, Start Num: 49

Candidate Starts for Zameen_68:

(Start: 31 @44748 has 8 MA's), (34, 44781), (38, 44811), (Start: 39 @44826 has 1 MA's), (42, 44835), (Start: 49 @44874 has 118 MA's), (62, 45006), (74, 45090), (82, 45141), (83, 45147), (88, 45219), (118, 45651), (120, 45678), (123, 45705), (131, 45795),

Gene: ZenTime222_47 Start: 35076, Stop: 35957, Start Num: 49

Candidate Starts for ZenTime222_47:

(33, 34971), (43, 35037), (Start: 49 @35076 has 118 MA's), (57, 35175), (72, 35274), (75, 35286),
(112, 35658), (113, 35703), (129, 35889),

Gene: Zirinka_66 Start: 46410, Stop: 47486, Start Num: 31

Candidate Starts for Zirinka_66:

(12, 46248), (Start: 31 @46410 has 8 MA's), (38, 46473), (Start: 39 @46488 has 1 MA's), (42, 46497),
(Start: 49 @46536 has 118 MA's), (74, 46752), (82, 46803), (83, 46809), (88, 46881), (102, 46998),
(118, 47313), (120, 47340), (123, 47367),