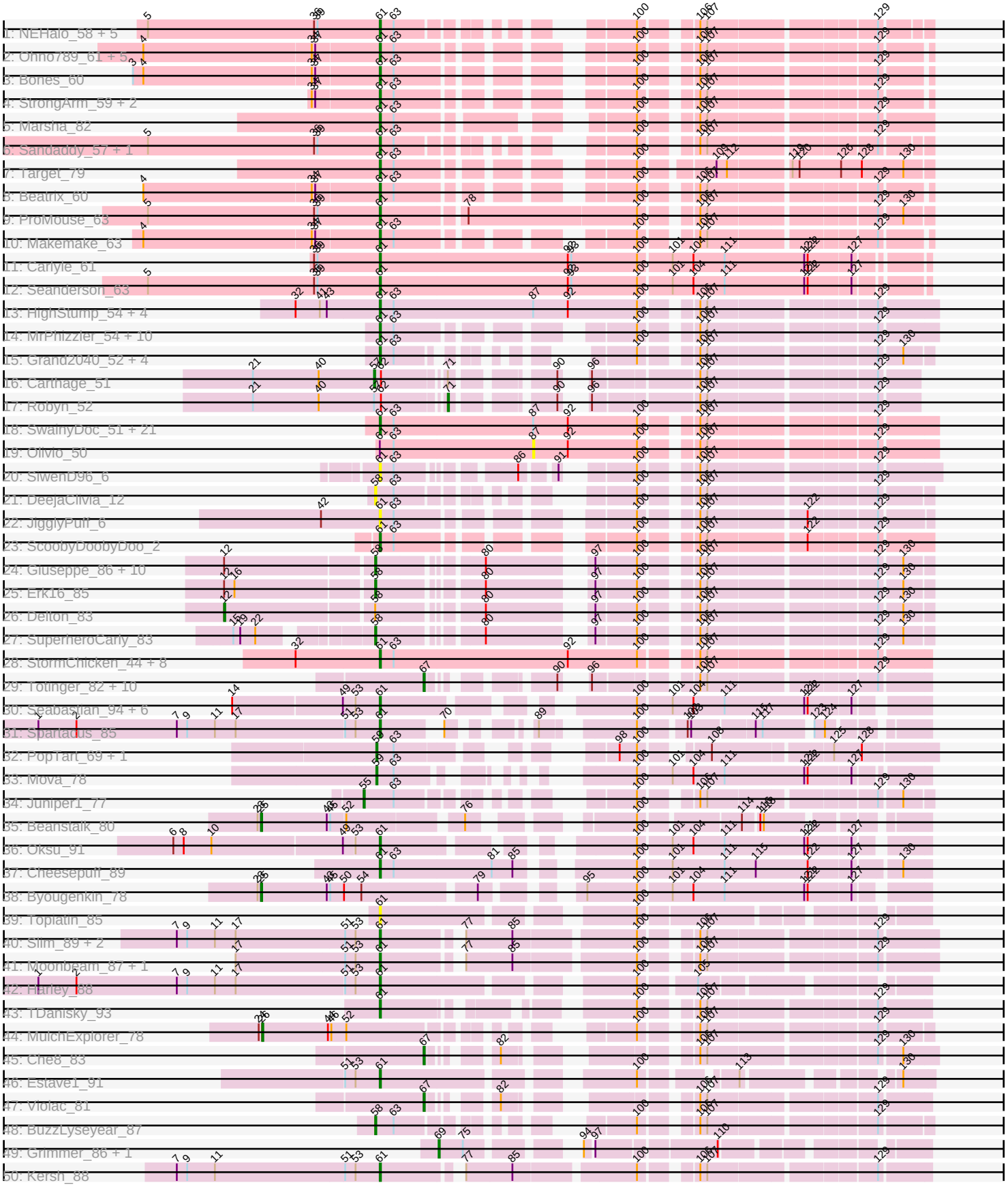
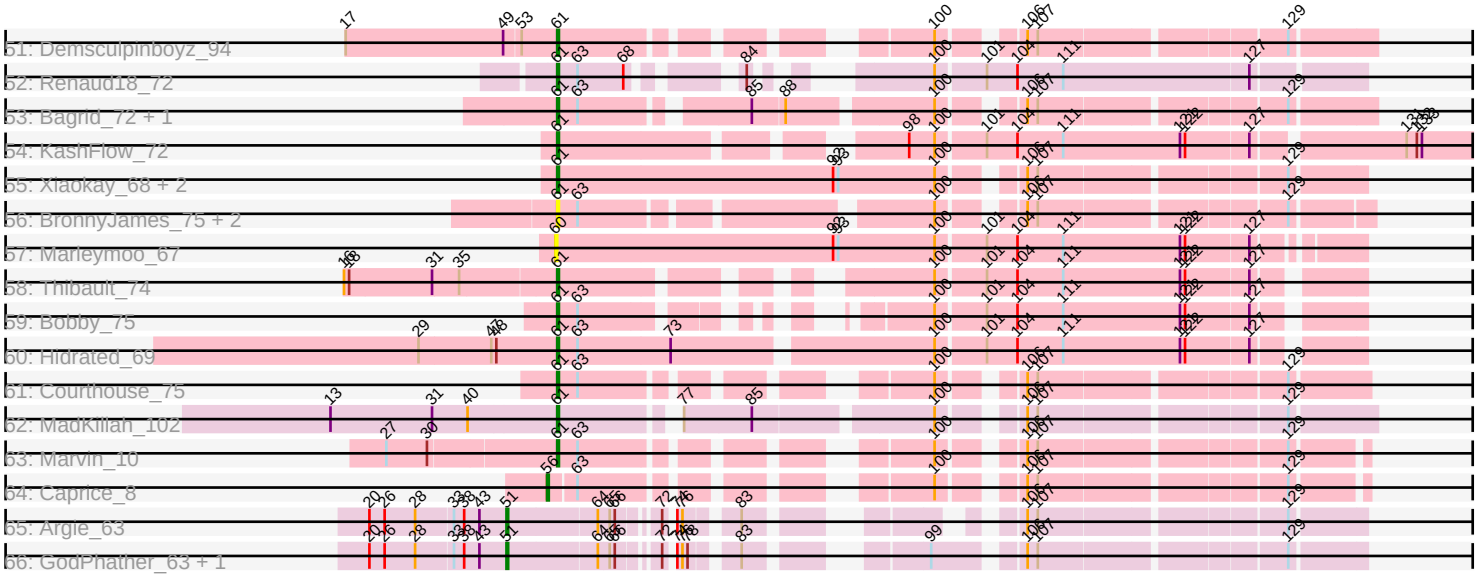
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1: NEHalo_58 + 5
2: Ohno789_61 + 5
3: Bones_60
4: StrongArm_59 + 2
5: Marsha_82
6: Sandaddy_57 + 1
7: Target_79
8: Beatrix_60
9: ProMouse_63
10: Makemake_63
11: Carlyle_61
12: Seanderson_63
13: HighStump_54 + 4
14: MrPhizzler_54 + 10
15: Grand2040_52 + 4
16: Carthage_51
17: Robyn_52
18: SwaihyDoc_51 + 21
19: Olivio_50
20: SiwenD96_6
21: DeejaCivia_12
22: JigglyPuff_6
23: ScoobyDoobyDoo_2
24: Giuseppe_86 + 10
25: Erk16_85
26: Delton_83
27: SuperheroCarly_83
28: StormChicken_44 + 8
29: Totinger_82 + 10
30: Seabastian_94 + 6
31: Spartacus_85
32: PopTart_69 + 1
33: Mova_78
34: Juniper1_77
35: Beanstalk_80
36: Oksu_91
37: Cheesepuff_89
38: Byougenkin_78
39: Toplatin_85
40: Slim_89 + 2
41: Moonbeam_87 + 1
42: Harley_88
43: TDanisky_93
44: MulchExplorer_78
45: Che8_83
46: Estave1_91
47: Violac_81
48: BuzzLyseyear_87
49: Grimmer_86 + 1
50: Kersh_88

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51: Demsculpinboyz_94
52: Renaud18_72
53: Bagrid_72 + 1
54: KashFlow_72
55: Xiaokay_68 + 2
56: BronnyJames_75 + 2
57: Marleymoo_67
58: Thibault_74
59: Bobby_75
60: Hidrated_69
61: Courthouse_75
62: MadKillah_102
63: Marvin_10
64: Caprice_8
65: Argie_63
66: GodFather_63 + 1

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 347325 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347325 has 163 members, 19 are drafts.

Phages represented in each track:
• Track 1 : NEHalo_58, GageAP_62, Blackflame_57, SpikeBT_59, Pollywog_86, AFIS_57
• Track 2 : Ohno789_61, Dreamboat_62, Cueylyss_61, Graduation_65, PherrisBueller_60, Jasper_61
• Track 3 : Bones_60
• Track 4 : StrongArm_59, Bexan_58, Scowl_62
• Track 5 : Marsha_82
• Track 6 : Sandaddy_57, Sorpresa_58
• Track 7 : Target_79
• Track 8 : Beatrix_60
• Track 9 : ProMouse_63
• Track 10 : Makemake_63
• Track 11 : Carlyle_61
• Track 12 : Seanderson_63
• Track 13 : HighStump_54, Chuni_54, Longacauda_53, Iridessa_53, Legolas_54
• Track 14 : MrPhizzler_54, BoogieWoogie_54, RedRaider77_10, VasuNzinga_9, Latretium_78, DolOn_56, Rimu_53, Fringe_56, Lumine_53, Khan1_52, Gwilliam_53
• Track 15 : Grand2040_52, LeiMonet_54, Maru_52, Cosmolli16_53, Giraffe_53
• Track 16 : Carthage_51
• Track 17 : Robyn_52
• Track 18 : SwainyDoc_51, DaddyDaniels_54, Chentzyk_51, Rita1961_51, Kronus_50, Childish_52, MmasiCarm_51, Soile_53, Phayeta_52, Mortcellus_50, Brilliant_54, Kahve_52, Casbah_50, Ben11_50, Gervas_51, HenryJackson_52, Marlia_51, Craff_55, Mulaychimus_51, TinyTerror_51, SlippinJimmy_52, Obutu_51
• Track 19 : Olivio_50
• Track 20 : SiwenD96_6
• Track 21 : DeejaClivia_12
• Track 22 : JigglyPuff_6
• Track 23 : ScoobyDoobyDoo_2
• Track 24 : Giuseppe_86, Adjutor_82, PLot_85, Visconti_85, Thoth_84, WaldoWhy_85, Butterscotch_82, Mopey_86, Chill_85, Prager_84, Penelope2018_84
• Track 25 : Erk16_85
• Track 26 : Delton_83
• Track 27 : SuperheroCarly_83
• Track 28 : StormChicken_44, Buck_43, TeamEdward_45, Nala_43, MPhalcon_42, MISSy_42, Becksu_43, Rimmer_43, Youngblood_44

• Track 29 : Totinger_82, Nivrat_76, Peridot_85, PhlipPhlop_81, Vivum_80, LilMoolah_78, LittleShirley_86, Fastidio_80, GigiOuiOui_74, EmiMonkey_80, Starcevich_80
• Track 30 : Seabastian_94, Modragons_91, OfUltron_94, Jinglebell_93, Llama_93, Ochi17_92, Nichirin_88
• Track 31 : Spartacus_85
• Track 32 : PopTart_69, SassyB_69
• Track 33 : Mova_78
• Track 34 : Juniper1_77
• Track 35 : Beanstalk_80
• Track 36 : Oksu_91
• Track 37 : Cheesepuff_89
• Track 38 : Byougenkin_78
• Track 39 : Topiatin_85
• Track 40 : Slim_89, Emmaloid_89, Sabbb_88
• Track 41 : Moonbeam_87, Rialto_90
• Track 42 : Harley_88
• Track 43 : TDanisky_93
• Track 44 : MulchExplorer_78
• Track 45 : Che8_83
• Track 46 : Estave1_91
• Track 47 : Violac_81
• Track 48 : BuzzLyseyear_87
• Track 49 : Grimmer_86, Mahavrat_76
• Track 50 : Kersh_88
• Track 51 : Demsculpinboyz_94
• Track 52 : Renaud18_72
• Track 53 : Bagrid_72, EricMillard_72
• Track 54 : KashFlow_72
• Track 55 : Xiaokay_68, Thibault_65, Constella_64
• Track 56 : BronnyJames_75, Nibley_68, Shaboozey_74
• Track 57 : Marleymoo_67
• Track 58 : Thibault_74
• Track 59 : Bobby_75
• Track 60 : Hidrated_69
• Track 61 : Courthouse_75
• Track 62 : MadKillah_102
• Track 63 : Marvin_10
• Track 64 : Caprice_8
• Track 65 : Argie_63
• Track 66 : GodPhather_63, Jeon_62

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

The start number called the most often in the published annotations is 61, it was called in 102 of the 144 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AFIS_57, Bagrid_72, Beatrix_60, Becksu_43, Ben11_50, Bexan_58, Blackflame_57, Bobby_75, Bones_60, BoogieWoogie_54, Brilliant_54, BronnyJames_75, Buck_43,

Carlyle_61, Casbah_50, Cheesepuff_89, Chentzyk_51, Childish_52, Chuni_54, Constella_64, Cosmolli16_53, Courthouse_75, Craff_55, Cueylyss_61, DaddyDaniels_54, Demsculpinboyz_94, DolOn_56, Dreamboat_62, Emmaloid_89, EricMillard_72, Estave1_91, Fringe_56, GageAP_62, Gervas_51, Giraffe_53, Graduation_65, Grand2040_52, Gwilliam_53, Harley_88, HenryJackson_52, Hidrated_69, HighStump_54, Iridessa_53, Jasper_61, JigglyPuff_6, Jinglebell_93, Kahve_52, KashFlow_72, Kersh_88, Khan1_52, Kronus_50, Latretium_78, Legolas_54, LeiMonet_54, Llama_93, Longacauda_53, Lumine_53, MISSy_42, MPhalcon_42, MadKillah_102, Makemake_63, Marlia_51, Marsha_82, Maru_52, Marvin_10, MmasiCarm_51, Modragons_91, Moonbeam_87, Mortcellus_50, MrPhizzler_54, Mulaychimus_51, NEHalo_58, Nala_43, Nibley_68, Nichirin_88, Obutu_51, Ochi17_92, OfUltron_94, Ohno789_61, Oksu_91, Phayeta_52, PherrisBueller_60, Pollywog_86, ProMouse_63, RedRaider77_10, Renaud18_72, Rialto_90, Rimmer_43, Rimu_53, Rita1961_51, Sabbb_88, Sandaddy_57, ScoobyDoobyDoo_2, Scowl_62, Seabastian_94, Seanderson_63, Shaboozey_74, SiwenD96_6, Slim_89, SlippinJimmy_52, Soile_53, Sorpresa_58, Spartacus_85, SpikeBT_59, StormChicken_44, StrongArm_59, SwainyDoc_51, TDanisky_93, Target_79, TeamEdward_45, Thibault_65, Thibault_74, TinyTerror_51, Topiatin_85, VasuNzinga_9, Xiaokay_68, Youngblood_44,

Genes that have the "Most Annotated" start but do not call it:
• Olivio_50,

Genes that do not have the "Most Annotated" start:
• Adjutor_82, Argie_63, Beanstalk_80, Butterscotch_82, BuzzLyseyear_87, Byougenkin_78, Caprice_8, Carthage_51, Che8_83, Chill_85, DeejaClivia_12, Delton_83, EmiMonkey_80, Erk16_85, Fastidio_80, GigiOuiOui_74, Giuseppe_86, GodPhather_63, Grimmer_86, Jeon_62, Juniper1_77, LilMoolah_78, LittleShirley_86, Mahavrat_76, Marleymoo_67, Mopey_86, Mova_78, MulchExplorer_78, Nivrat_76, PLot_85, Penelope2018_84, Peridot_85, PhlipPhlop_81, PopTart_69, Prager_84, Robyn_52, SassyB_69, Starcevich_80, SuperheroCarly_83, Thoth_84, Totinger_82, Violac_81, Visconti_85, Vivum_80, WaldoWhy_85,

Summary by start number:

Start 12:
• Found in 13 of 163 (8.0%) of genes in pham
• Manual Annotations of this start: 1 of 144
• Called 7.7% of time when present
• Phage (with cluster) where this start called: Delton_83 (D1),

Start 25:
• Found in 2 of 163 (1.2%) of genes in pham
• Manual Annotations of this start: 2 of 144
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beanstalk_80 (F1), Byougenkin_78 (F1),

Start 26:
• Found in 4 of 163 (2.5%) of genes in pham
• Manual Annotations of this start: 1 of 144
• Called 25.0% of time when present
• Phage (with cluster) where this start called: MulchExplorer_78 (F1),

Start 51:
• Found in 12 of 163 (7.4%) of genes in pham
• Manual Annotations of this start: 3 of 144
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Argie_63 (W), GodPhather_63 (W), Jeon_62 (W),

Start 55:
• Found in 1 of 163 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 144
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Juniper1_77 (F1),

Start 56:
• Found in 1 of 163 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 144
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Caprice_8 (S),

Start 57:
• Found in 2 of 163 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 144
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Carthage_51 (B1),

Start 58:
• Found in 16 of 163 (9.8%) of genes in pham
• Manual Annotations of this start: 14 of 144
• Called 93.8% of time when present
• Phage (with cluster) where this start called: Adjutor_82 (D1), Butterscotch_82 (D1), BuzzLyseyear_87 (F1), Chill_85 (D1), DeejaClivia_12 (C1), Erk16_85 (D1), Giuseppe_86 (D1), Mopey_86 (D1), PLot_85 (D1), Penelope2018_84 (D1), Prager_84 (D1), SuperheroCarly_83 (D1), Thoth_84 (D1), Visconti_85 (D1), WaldoWhy_85 (D1),

Start 59:
• Found in 3 of 163 (1.8%) of genes in pham
• Manual Annotations of this start: 3 of 144
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mova_78 (F1), PopTart_69 (F1), SassyB_69 (F1),

Start 60:
• Found in 1 of 163 (0.6%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Marleymoo_67 (J),

Start 61:
• Found in 118 of 163 (72.4%) of genes in pham
• Manual Annotations of this start: 102 of 144
• Called 99.2% of time when present

• Phage (with cluster) where this start called: AFIS_57 (A1), Bagrid_72 (J), Beatrix_60 (A1), Becksu_43 (E), Ben11_50 (B3), Bexan_58 (A1), Blackflame_57 (A1), Bobby_75 (J), Bones_60 (A1), BoogieWoogie_54 (B1), Brilliant_54 (B1), BronnyJames_75 (J), Buck_43 (E), Carlyle_61 (A1), Casbah_50 (B3), Cheesepuff_89 (F1), Chentzyk_51 (B3), Childish_52 (B1), Chuni_54 (B1), Constella_64 (J), Cosmolli16_53 (B1), Courthouse_75 (J), Craff_55 (B1), Cueylyss_61 (A1), DaddyDaniels_54 (B1), Demsculpinboyz_94 (F2), DolOn_56 (B1), Dreamboat_62 (A1), Emmaloid_89 (F1), EricMillard_72 (J), Estave1_91 (F1), Fringe_56 (B1), GageAP_62 (A1), Gervas_51 (B3), Giraffe_53 (B1), Graduation_65 (A1), Grand2040_52 (B1), Gwilliam_53 (B1), Harley_88 (F1), HenryJackson_52 (B1), Hidrated_69 (J), HighStump_54 (B1), Iridessa_53 (B1), Jasper_61 (A1), JigglyPuff_6 (C1), Jinglebell_93 (F1), Kahve_52 (B1), KashFlow_72 (J), Kersh_88 (F1), Khan1_52 (B1), Kronus_50 (B3), Latretium_78 (F1), Legolas_54 (B1), LeiMonet_54 (B1), Llama_93 (F1), Longacauda_53 (B1), Lumine_53 (B1), MISSy_42 (E), MPhalcon_42 (E), MadKillah_102 (O), Makemake_63 (A1), Marlia_51 (B3), Marsha_82 (A1), Maru_52 (B1), Marvin_10 (S), MmasiCarm_51 (B3), Modragons_91 (F1), Moonbeam_87 (F1), Mortcellus_50 (B3), MrPhizzler_54 (B1), Mulaychimus_51 (B3), NEHalo_58 (A1), Nala_43 (E), Nibley_68 (J), Nichirin_88 (F1), Obutu_51 (B3), Ochi17_92 (F1), OfUltron_94 (F1), Ohno789_61 (A1), Oksu_91 (F1), Phayeta_52 (B3), PherrisBueller_60 (A1), Pollywog_86 (F1), ProMouse_63 (A1), RedRaider77_10 (S), Renaud18_72 (F4), Rialto_90 (F1), Rimmer_43 (E), Rimu_53 (B1), Rita1961_51 (B3), Sabbb_88 (F1), Sandaddy_57 (A1), ScoobyDoobyDoo_2 (C2), Scowl_62 (A1), Seabastian_94 (F1), Seanderson_63 (A1), Shaboozey_74 (J), SiwenD96_6 (C1), Slim_89 (F1), SlippinJimmy_52 (B3), Soile_53 (B1), Sorpresa_58 (A1), Spartacus_85 (F1), SpikeBT_59 (A1), StormChicken_44 (E), StrongArm_59 (A1), SwainyDoc_51 (B3), TDanisky_93 (F1), Target_79 (A1), TeamEdward_45 (E), Thibault_65 (J), Thibault_74 (J), TinyTerror_51 (B3), Topiatin_85 (F1), VasuNzinga_9 (S), Xiaokay_68 (J), Youngblood_44 (E),

Start 67:
• Found in 13 of 163 (8.0%) of genes in pham
• Manual Annotations of this start: 12 of 144
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Che8_83 (F1), EmiMonkey_80 (F1), Fastidio_80 (F1), GigiOuiOui_74 (F1), LilMoolah_78 (F1), LittleShirley_86 (F1), Nivrat_76 (F1), Peridot_85 (F1), PhlipPhlop_81 (F1), Starcevich_80 (F1), Totinger_82 (F1), Violac_81 (F1), Vivum_80 (F1),

Start 69:
• Found in 2 of 163 (1.2%) of genes in pham
• Manual Annotations of this start: 2 of 144
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Grimmer_86 (F1), Mahavrat_76 (F1),

Start 71:
• Found in 2 of 163 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 144
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Robyn_52 (B1),

Start 87:
• Found in 28 of 163 (17.2%) of genes in pham
• No Manual Annotations of this start.

• Called 3.6% of time when present
• Phage (with cluster) where this start called: Olivio_50 (B3),

Summary by clusters:

There are 14 clusters represented in this pham: F1, F2, E, J, O, A1, S, B1, W, B3, F4, C1, C2, D1,

Info for manual annotations of cluster A1:
•Start number 61 was manually annotated 22 times for cluster A1.

Info for manual annotations of cluster B1:
•Start number 57 was manually annotated 1 time for cluster B1.
•Start number 61 was manually annotated 24 times for cluster B1.
•Start number 71 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B3:
•Start number 61 was manually annotated 13 times for cluster B3.

Info for manual annotations of cluster C2:
•Start number 61 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster D1:
•Start number 12 was manually annotated 1 time for cluster D1.
•Start number 58 was manually annotated 13 times for cluster D1.

Info for manual annotations of cluster E:
•Start number 61 was manually annotated 7 times for cluster E.

Info for manual annotations of cluster F1:
•Start number 25 was manually annotated 2 times for cluster F1.
•Start number 26 was manually annotated 1 time for cluster F1.
•Start number 55 was manually annotated 1 time for cluster F1.
•Start number 58 was manually annotated 1 time for cluster F1.
•Start number 59 was manually annotated 3 times for cluster F1.
•Start number 61 was manually annotated 21 times for cluster F1.
•Start number 67 was manually annotated 12 times for cluster F1.
•Start number 69 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 61 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:
•Start number 61 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:
•Start number 61 was manually annotated 8 times for cluster J.

Info for manual annotations of cluster O:
•Start number 61 was manually annotated 1 time for cluster O.

Info for manual annotations of cluster S:

•Start number 56 was manually annotated 1 time for cluster S.
•Start number 61 was manually annotated 3 times for cluster S.

Info for manual annotations of cluster W:
•Start number 51 was manually annotated 3 times for cluster W.

Gene Information:

Gene: AFIS_57 Start: 39716, Stop: 39357, Start Num: 61
Candidate Starts for AFIS_57:
(5, 39917), (36, 39773), (39, 39770), (Start: 61 @39716 has 102 MA's), (63, 39704), (100, 39569), (106, 39533), (107, 39527), (129, 39395),

Gene: Adjutor_82 Start: 59655, Stop: 60050, Start Num: 58
Candidate Starts for Adjutor_82:
(Start: 12 @59532 has 1 MA's), (Start: 58 @59655 has 14 MA's), (80, 59730), (97, 59802), (100, 59835), (106, 59871), (107, 59877), (129, 60009), (130, 60027),

Gene: Argie_63 Start: 48115, Stop: 48504, Start Num: 51
Candidate Starts for Argie_63:
(20, 48037), (Start: 26 @48046 has 1 MA's), (28, 48064), (33, 48085), (38, 48091), (43, 48100), (Start: 51 @48115 has 3 MA's), (64, 48166), (65, 48172), (66, 48175), (72, 48193), (74, 48196), (76, 48199), (83, 48223), (106, 48325), (107, 48331), (129, 48463),

Gene: Bagrid_72 Start: 50124, Stop: 49711, Start Num: 61
Candidate Starts for Bagrid_72:
(Start: 61 @50124 has 102 MA's), (63, 50112), (85, 50028), (88, 50010), (100, 49932), (106, 49896), (107, 49890), (129, 49758),

Gene: Beanstalk_80 Start: 47844, Stop: 48317, Start Num: 25
Candidate Starts for Beanstalk_80:
(23, 47841), (Start: 25 @47844 has 2 MA's), (43, 47901), (45, 47904), (52, 47916), (76, 48006), (100, 48108), (114, 48186), (116, 48198), (118, 48201),

Gene: Beatrix_60 Start: 41870, Stop: 41490, Start Num: 61
Candidate Starts for Beatrix_60:
(4, 42071), (34, 41927), (37, 41924), (Start: 61 @41870 has 102 MA's), (63, 41858), (100, 41702), (106, 41666), (107, 41660), (129, 41528),

Gene: Becksu_43 Start: 35704, Stop: 35261, Start Num: 61
Candidate Starts for Becksu_43:
(32, 35776), (Start: 61 @35704 has 102 MA's), (63, 35692), (92, 35542), (100, 35482), (106, 35446), (107, 35440), (129, 35308),

Gene: Ben11_50 Start: 45429, Stop: 44986, Start Num: 61
Candidate Starts for Ben11_50:
(Start: 61 @45429 has 102 MA's), (63, 45417), (87, 45297), (92, 45267), (100, 45207), (106, 45171), (107, 45165), (129, 45033),

Gene: Bexan_58 Start: 41649, Stop: 41269, Start Num: 61
Candidate Starts for Bexan_58:

(34, 41706), (37, 41703), (Start: 61 @41649 has 102 MA's), (63, 41637), (100, 41481), (106, 41445), (107, 41439), (129, 41307),

Gene: Blackflame_57 Start: 40484, Stop: 40125, Start Num: 61
Candidate Starts for Blackflame_57:
(5, 40685), (36, 40541), (39, 40538), (Start: 61 @40484 has 102 MA's), (63, 40472), (100, 40337), (106, 40301), (107, 40295), (129, 40163),

Gene: Bobby_75 Start: 51169, Stop: 50789, Start Num: 61
Candidate Starts for Bobby_75:
(Start: 61 @51169 has 102 MA's), (63, 51157), (100, 51022), (101, 50995), (104, 50977), (111, 50950), (121, 50881), (122, 50878), (127, 50842),

Gene: Bones_60 Start: 41965, Stop: 41585, Start Num: 61
Candidate Starts for Bones_60:
(3, 42175), (4, 42166), (34, 42022), (37, 42019), (Start: 61 @41965 has 102 MA's), (63, 41953), (100, 41797), (106, 41761), (107, 41755), (129, 41623),

Gene: BoogieWoogie_54 Start: 47371, Stop: 46982, Start Num: 61
Candidate Starts for BoogieWoogie_54:
(Start: 61 @47371 has 102 MA's), (63, 47359), (100, 47203), (106, 47167), (107, 47161), (129, 47029),

Gene: Brilliant_54 Start: 47338, Stop: 46895, Start Num: 61
Candidate Starts for Brilliant_54:
(Start: 61 @47338 has 102 MA's), (63, 47326), (87, 47206), (92, 47176), (100, 47116), (106, 47080), (107, 47074), (129, 46942),

Gene: BronnyJames_75 Start: 47278, Stop: 46868, Start Num: 61
Candidate Starts for BronnyJames_75:
(Start: 61 @47278 has 102 MA's), (63, 47266), (100, 47086), (106, 47050), (107, 47044), (129, 46912),

Gene: Buck_43 Start: 35755, Stop: 35318, Start Num: 61
Candidate Starts for Buck_43:
(32, 35827), (Start: 61 @35755 has 102 MA's), (63, 35743), (92, 35593), (100, 35533), (106, 35497), (107, 35491), (129, 35359),

Gene: Butterscotch_82 Start: 59706, Stop: 60101, Start Num: 58
Candidate Starts for Butterscotch_82:
(Start: 12 @59583 has 1 MA's), (Start: 58 @59706 has 14 MA's), (80, 59781), (97, 59853), (100, 59886), (106, 59922), (107, 59928), (129, 60060), (130, 60078),

Gene: BuzzLyseyear_87 Start: 51492, Stop: 51857, Start Num: 58
Candidate Starts for BuzzLyseyear_87:
(Start: 58 @51492 has 14 MA's), (63, 51507), (100, 51642), (106, 51678), (107, 51684), (129, 51816),

Gene: Byougenkin_78 Start: 46058, Stop: 46567, Start Num: 25
Candidate Starts for Byougenkin_78:
(23, 46055), (Start: 25 @46058 has 2 MA's), (43, 46115), (45, 46118), (50, 46130), (54, 46145), (79, 46235), (95, 46292), (100, 46334), (101, 46361), (104, 46379), (111, 46406), (121, 46475), (122, 46478), (127, 46514),

Gene: Caprice_8 Start: 2539, Stop: 2922, Start Num: 56
Candidate Starts for Caprice_8:

(Start: 56 @2539 has 1 MA's), (63, 2554), (100, 2710), (106, 2746), (107, 2752), (129, 2884),

Gene: Carlyle_61 Start: 39697, Stop: 39242, Start Num: 61
Candidate Starts for Carlyle_61:
(36, 39754), (39, 39751), (Start: 61 @39697 has 102 MA's), (92, 39535), (93, 39532), (100, 39475), (101, 39448), (104, 39430), (111, 39403), (121, 39334), (122, 39331), (127, 39295),

Gene: Carthage_51 Start: 46401, Stop: 46021, Start Num: 57
Candidate Starts for Carthage_51:
(21, 46506), (40, 46449), (Start: 57 @46401 has 1 MA's), (62, 46395), (Start: 71 @46347 has 1 MA's), (90, 46278), (96, 46272), (106, 46191), (107, 46185), (129, 46053),

Gene: Casbah_50 Start: 45459, Stop: 45016, Start Num: 61
Candidate Starts for Casbah_50:
(Start: 61 @45459 has 102 MA's), (63, 45447), (87, 45327), (92, 45297), (100, 45237), (106, 45201), (107, 45195), (129, 45063),

Gene: Che8_83 Start: 48984, Stop: 49319, Start Num: 67
Candidate Starts for Che8_83:
(Start: 67 @48984 has 12 MA's), (82, 49020), (106, 49134), (107, 49140), (129, 49272), (130, 49290),

Gene: Cheesepuff_89 Start: 49033, Stop: 49464, Start Num: 61
Candidate Starts for Cheesepuff_89:
(Start: 61 @49033 has 102 MA's), (63, 49045), (81, 49129), (85, 49147), (100, 49225), (101, 49252), (111, 49297), (115, 49324), (122, 49369), (127, 49405), (130, 49441),

Gene: Chentzyk_51 Start: 45971, Stop: 45528, Start Num: 61
Candidate Starts for Chentzyk_51:
(Start: 61 @45971 has 102 MA's), (63, 45959), (87, 45839), (92, 45809), (100, 45749), (106, 45713), (107, 45707), (129, 45575),

Gene: Childish_52 Start: 47365, Stop: 46922, Start Num: 61
Candidate Starts for Childish_52:
(Start: 61 @47365 has 102 MA's), (63, 47353), (87, 47233), (92, 47203), (100, 47143), (106, 47107), (107, 47101), (129, 46969),

Gene: Chill_85 Start: 59683, Stop: 60078, Start Num: 58
Candidate Starts for Chill_85:
(Start: 12 @59560 has 1 MA's), (Start: 58 @59683 has 14 MA's), (80, 59758), (97, 59830), (100, 59863), (106, 59899), (107, 59905), (129, 60037), (130, 60055),

Gene: Chuni_54 Start: 47918, Stop: 47481, Start Num: 61
Candidate Starts for Chuni_54:
(32, 47990), (41, 47969), (43, 47963), (Start: 61 @47918 has 102 MA's), (63, 47906), (87, 47786), (92, 47756), (100, 47696), (106, 47660), (107, 47654), (129, 47522),

Gene: Constella_64 Start: 46367, Stop: 45930, Start Num: 61
Candidate Starts for Constella_64:
(Start: 61 @46367 has 102 MA's), (92, 46205), (93, 46202), (100, 46145), (106, 46109), (107, 46103), (129, 45971),

Gene: Cosmolli16_53 Start: 47545, Stop: 47198, Start Num: 61
Candidate Starts for Cosmolli16_53:

(Start: 61 @47545 has 102 MA's), (63, 47533), (100, 47413), (106, 47377), (107, 47371), (129, 47239), (130, 47221),

Gene: Courthouse_75 Start: 48166, Stop: 47780, Start Num: 61
Candidate Starts for Courthouse_75:
(Start: 61 @48166 has 102 MA's), (63, 48154), (100, 47998), (106, 47962), (107, 47956), (129, 47824),

Gene: Craff_55 Start: 47790, Stop: 47347, Start Num: 61
Candidate Starts for Craff_55:
(Start: 61 @47790 has 102 MA's), (63, 47778), (87, 47658), (92, 47628), (100, 47568), (106, 47532), (107, 47526), (129, 47394),

Gene: Cueylyss_61 Start: 42165, Stop: 41785, Start Num: 61
Candidate Starts for Cueylyss_61:
(4, 42366), (34, 42222), (37, 42219), (Start: 61 @42165 has 102 MA's), (63, 42153), (100, 41997), (106, 41961), (107, 41955), (129, 41823),

Gene: DaddyDaniels_54 Start: 47322, Stop: 46879, Start Num: 61
Candidate Starts for DaddyDaniels_54:
(Start: 61 @47322 has 102 MA's), (63, 47310), (87, 47190), (92, 47160), (100, 47100), (106, 47064), (107, 47058), (129, 46926),

Gene: DeejaClivia_12 Start: 3961, Stop: 4326, Start Num: 58
Candidate Starts for DeejaClivia_12:
(Start: 58 @3961 has 14 MA's), (63, 3976), (100, 4111), (106, 4147), (107, 4153), (129, 4285),

Gene: Delton_83 Start: 59993, Stop: 60511, Start Num: 12
Candidate Starts for Delton_83:
(Start: 12 @59993 has 1 MA's), (Start: 58 @60116 has 14 MA's), (80, 60191), (97, 60263), (100, 60296), (106, 60332), (107, 60338), (129, 60470), (130, 60488),

Gene: Demsculpinboyz_94 Start: 48157, Stop: 48546, Start Num: 61
Candidate Starts for Demsculpinboyz_94:
(17, 48034), (49, 48127), (53, 48136), (Start: 61 @48157 has 102 MA's), (100, 48325), (106, 48361), (107, 48367), (129, 48499),

Gene: DolOn_56 Start: 48048, Stop: 47668, Start Num: 61
Candidate Starts for DolOn_56:
(Start: 61 @48048 has 102 MA's), (63, 48036), (100, 47880), (106, 47844), (107, 47838), (129, 47706),

Gene: Dreamboat_62 Start: 40065, Stop: 39685, Start Num: 61
Candidate Starts for Dreamboat_62:
(4, 40266), (34, 40122), (37, 40119), (Start: 61 @40065 has 102 MA's), (63, 40053), (100, 39897), (106, 39861), (107, 39855), (129, 39723),

Gene: EmiMonkey_80 Start: 52533, Stop: 52862, Start Num: 67
Candidate Starts for EmiMonkey_80:
(Start: 67 @52533 has 12 MA's), (90, 52608), (96, 52614), (106, 52683), (107, 52689), (129, 52821),

Gene: Emmaloid_89 Start: 50002, Stop: 50415, Start Num: 61
Candidate Starts for Emmaloid_89:
(7, 49828), (9, 49837), (11, 49861), (17, 49879), (Start: 51 @49972 has 3 MA's), (53, 49981), (Start: 61 @50002 has 102 MA's), (77, 50059), (85, 50098), (100, 50194), (106, 50230), (107, 50236), (129,

50368),

Gene: EricMillard_72 Start: 50977, Stop: 50564, Start Num: 61
Candidate Starts for EricMillard_72:
(Start: 61 @50977 has 102 MA's), (63, 50965), (85, 50881), (88, 50863), (100, 50785), (106, 50749), (107, 50743), (129, 50611),

Gene: Erk16_85 Start: 60039, Stop: 60434, Start Num: 58
Candidate Starts for Erk16_85:
(Start: 12 @59916 has 1 MA's), (16, 59925), (Start: 58 @60039 has 14 MA's), (80, 60114), (97, 60186), (100, 60219), (106, 60255), (107, 60261), (129, 60393), (130, 60411),

Gene: Estave1_91 Start: 53006, Stop: 53392, Start Num: 61
Candidate Starts for Estave1_91:
(Start: 51 @52976 has 3 MA's), (53, 52985), (Start: 61 @53006 has 102 MA's), (100, 53192), (113, 53258), (130, 53366),

Gene: Fastidio_80 Start: 45795, Stop: 46124, Start Num: 67
Candidate Starts for Fastidio_80:
(Start: 67 @45795 has 12 MA's), (90, 45870), (96, 45876), (106, 45945), (107, 45951), (129, 46083),

Gene: Fringe_56 Start: 48267, Stop: 47878, Start Num: 61
Candidate Starts for Fringe_56:
(Start: 61 @48267 has 102 MA's), (63, 48255), (100, 48099), (106, 48063), (107, 48057), (129, 47925),

Gene: GageAP_62 Start: 41383, Stop: 41024, Start Num: 61
Candidate Starts for GageAP_62:
(5, 41584), (36, 41440), (39, 41437), (Start: 61 @41383 has 102 MA's), (63, 41371), (100, 41236), (106, 41200), (107, 41194), (129, 41062),

Gene: Gervas_51 Start: 45588, Stop: 45145, Start Num: 61
Candidate Starts for Gervas_51:
(Start: 61 @45588 has 102 MA's), (63, 45576), (87, 45456), (92, 45426), (100, 45366), (106, 45330), (107, 45324), (129, 45192),

Gene: GigiOuiOui_74 Start: 47391, Stop: 47720, Start Num: 67
Candidate Starts for GigiOuiOui_74:
(Start: 67 @47391 has 12 MA's), (90, 47466), (96, 47472), (106, 47541), (107, 47547), (129, 47679),

Gene: Giraffe_53 Start: 47326, Stop: 46979, Start Num: 61
Candidate Starts for Giraffe_53:
(Start: 61 @47326 has 102 MA's), (63, 47314), (100, 47194), (106, 47158), (107, 47152), (129, 47020), (130, 47002),

Gene: Giuseppe_86 Start: 59752, Stop: 60147, Start Num: 58
Candidate Starts for Giuseppe_86:
(Start: 12 @59629 has 1 MA's), (Start: 58 @59752 has 14 MA's), (80, 59827), (97, 59899), (100, 59932), (106, 59968), (107, 59974), (129, 60106), (130, 60124),

Gene: GodPhather_63 Start: 48617, Stop: 49021, Start Num: 51
Candidate Starts for GodPhather_63:
(20, 48539), (Start: 26 @48548 has 1 MA's), (28, 48566), (33, 48587), (38, 48593), (43, 48602), (Start: 51 @48617 has 3 MA's), (64, 48668), (65, 48674), (66, 48677), (72, 48695), (74, 48698), (76, 48701),

(78, 48704), (83, 48725), (99, 48800), (106, 48842), (107, 48848), (129, 48980),

Gene: Graduation_65 Start: 42237, Stop: 41857, Start Num: 61
Candidate Starts for Graduation_65:
(4, 42438), (34, 42294), (37, 42291), (Start: 61 @42237 has 102 MA's), (63, 42225), (100, 42069), (106, 42033), (107, 42027), (129, 41895),

Gene: Grand2040_52 Start: 47320, Stop: 46973, Start Num: 61
Candidate Starts for Grand2040_52:
(Start: 61 @47320 has 102 MA's), (63, 47308), (100, 47188), (106, 47152), (107, 47146), (129, 47014), (130, 46996),

Gene: Grimmer_86 Start: 48684, Stop: 49022, Start Num: 69
Candidate Starts for Grimmer_86:
(Start: 69 @48684 has 2 MA's), (75, 48705), (94, 48774), (97, 48780), (110, 48876),

Gene: Gwilliam_53 Start: 47683, Stop: 47303, Start Num: 61
Candidate Starts for Gwilliam_53:
(Start: 61 @47683 has 102 MA's), (63, 47671), (100, 47515), (106, 47479), (107, 47473), (129, 47341),

Gene: Harley_88 Start: 50437, Stop: 50829, Start Num: 61
Candidate Starts for Harley_88:
(1, 50143), (2, 50176), (7, 50263), (9, 50272), (11, 50296), (17, 50314), (Start: 51 @50407 has 3 MA's), (53, 50416), (Start: 61 @50437 has 102 MA's), (100, 50623), (105, 50665),

Gene: HenryJackson_52 Start: 47354, Stop: 46911, Start Num: 61
Candidate Starts for HenryJackson_52:
(Start: 61 @47354 has 102 MA's), (63, 47342), (87, 47222), (92, 47192), (100, 47132), (106, 47096), (107, 47090), (129, 46958),

Gene: Hidrated_69 Start: 50826, Stop: 50383, Start Num: 61
Candidate Starts for Hidrated_69:
(29, 50907), (47, 50865), (48, 50862), (Start: 61 @50826 has 102 MA's), (63, 50814), (73, 50760), (100, 50616), (101, 50589), (104, 50571), (111, 50544), (121, 50475), (122, 50472), (127, 50436),

Gene: HighStump_54 Start: 47890, Stop: 47447, Start Num: 61
Candidate Starts for HighStump_54:
(32, 47962), (41, 47941), (43, 47935), (Start: 61 @47890 has 102 MA's), (63, 47878), (87, 47758), (92, 47728), (100, 47668), (106, 47632), (107, 47626), (129, 47494),

Gene: Iridessa_53 Start: 47334, Stop: 46891, Start Num: 61
Candidate Starts for Iridessa_53:
(32, 47406), (41, 47385), (43, 47379), (Start: 61 @47334 has 102 MA's), (63, 47322), (87, 47202), (92, 47172), (100, 47112), (106, 47076), (107, 47070), (129, 46938),

Gene: Jasper_61 Start: 39951, Stop: 39571, Start Num: 61
Candidate Starts for Jasper_61:
(4, 40152), (34, 40008), (37, 40005), (Start: 61 @39951 has 102 MA's), (63, 39939), (100, 39783), (106, 39747), (107, 39741), (129, 39609),

Gene: Jeon_62 Start: 48308, Stop: 48712, Start Num: 51
Candidate Starts for Jeon_62:

(20, 48230), (Start: 26 @48239 has 1 MA's), (28, 48257), (33, 48278), (38, 48284), (43, 48293), (Start: 51 @48308 has 3 MA's), (64, 48359), (65, 48365), (66, 48368), (72, 48386), (74, 48389), (76, 48392), (78, 48395), (83, 48416), (99, 48491), (106, 48533), (107, 48539), (129, 48671),

Gene: JigglyPuff_6 Start: 1982, Stop: 2365, Start Num: 61
Candidate Starts for JigglyPuff_6:
(42, 1931), (Start: 61 @1982 has 102 MA's), (63, 1994), (100, 2150), (106, 2186), (107, 2192), (122, 2270), (129, 2324),

Gene: Jinglebell_93 Start: 50985, Stop: 51386, Start Num: 61
Candidate Starts for Jinglebell_93:
(14, 50862), (49, 50955), (53, 50964), (Start: 61 @50985 has 102 MA's), (100, 51153), (101, 51180), (104, 51198), (111, 51225), (121, 51294), (122, 51297), (127, 51333),

Gene: Juniper1_77 Start: 47775, Stop: 48149, Start Num: 55
Candidate Starts for Juniper1_77:
(Start: 55 @47775 has 1 MA's), (63, 47799), (100, 47934), (106, 47970), (107, 47976), (129, 48108), (130, 48126),

Gene: Kahve_52 Start: 47351, Stop: 46908, Start Num: 61
Candidate Starts for Kahve_52:
(Start: 61 @47351 has 102 MA's), (63, 47339), (87, 47219), (92, 47189), (100, 47129), (106, 47093), (107, 47087), (129, 46955),

Gene: KashFlow_72 Start: 47258, Stop: 46752, Start Num: 61
Candidate Starts for KashFlow_72:
(Start: 61 @47258 has 102 MA's), (98, 47087), (100, 47072), (101, 47045), (104, 47027), (111, 47000), (121, 46931), (122, 46928), (127, 46892), (131, 46811), (132, 46805), (133, 46802),

Gene: Kersh_88 Start: 52115, Stop: 52522, Start Num: 61
Candidate Starts for Kersh_88:
(7, 51941), (9, 51950), (11, 51974), (Start: 51 @52085 has 3 MA's), (53, 52094), (Start: 61 @52115 has 102 MA's), (77, 52172), (85, 52211), (100, 52307), (106, 52343), (107, 52349), (129, 52481),

Gene: Khan1_52 Start: 47307, Stop: 46918, Start Num: 61
Candidate Starts for Khan1_52:
(Start: 61 @47307 has 102 MA's), (63, 47295), (100, 47139), (106, 47103), (107, 47097), (129, 46965),

Gene: Kronus_50 Start: 46191, Stop: 45748, Start Num: 61
Candidate Starts for Kronus_50:
(Start: 61 @46191 has 102 MA's), (63, 46179), (87, 46059), (92, 46029), (100, 45969), (106, 45933), (107, 45927), (129, 45795),

Gene: Latretium_78 Start: 47174, Stop: 47560, Start Num: 61
Candidate Starts for Latretium_78:
(Start: 61 @47174 has 102 MA's), (63, 47186), (100, 47342), (106, 47378), (107, 47384), (129, 47516),

Gene: Legolas_54 Start: 47787, Stop: 47344, Start Num: 61
Candidate Starts for Legolas_54:
(32, 47859), (41, 47838), (43, 47832), (Start: 61 @47787 has 102 MA's), (63, 47775), (87, 47655), (92, 47625), (100, 47565), (106, 47529), (107, 47523), (129, 47391),

Gene: LeiMonet_54 Start: 47306, Stop: 46959, Start Num: 61

Candidate Starts for LeiMonet_54:
(Start: 61 @47306 has 102 MA's), (63, 47294), (100, 47174), (106, 47138), (107, 47132), (129, 47000), (130, 46982),

Gene: LilMoolah_78 Start: 48539, Stop: 48874, Start Num: 67
Candidate Starts for LilMoolah_78:
(Start: 67 @48539 has 12 MA's), (90, 48614), (96, 48620), (106, 48689), (107, 48695), (129, 48827),

Gene: LittleShirley_86 Start: 49468, Stop: 49797, Start Num: 67
Candidate Starts for LittleShirley_86:
(Start: 67 @49468 has 12 MA's), (90, 49543), (96, 49549), (106, 49618), (107, 49624), (129, 49756),

Gene: Llama_93 Start: 50841, Stop: 51242, Start Num: 61
Candidate Starts for Llama_93:
(14, 50718), (49, 50811), (53, 50820), (Start: 61 @50841 has 102 MA's), (100, 51009), (101, 51036), (104, 51054), (111, 51081), (121, 51150), (122, 51153), (127, 51189),

Gene: Longacauda_53 Start: 47750, Stop: 47307, Start Num: 61
Candidate Starts for Longacauda_53:
(32, 47822), (41, 47801), (43, 47795), (Start: 61 @47750 has 102 MA's), (63, 47738), (87, 47618), (92, 47588), (100, 47528), (106, 47492), (107, 47486), (129, 47354),

Gene: Lumine_53 Start: 47538, Stop: 47155, Start Num: 61
Candidate Starts for Lumine_53:
(Start: 61 @47538 has 102 MA's), (63, 47526), (100, 47370), (106, 47334), (107, 47328), (129, 47196),

Gene: MISSy_42 Start: 35034, Stop: 34591, Start Num: 61
Candidate Starts for MISSy_42:
(32, 35106), (Start: 61 @35034 has 102 MA's), (63, 35022), (92, 34872), (100, 34812), (106, 34776), (107, 34770), (129, 34638),

Gene: MPhalcon_42 Start: 35027, Stop: 34584, Start Num: 61
Candidate Starts for MPhalcon_42:
(32, 35099), (Start: 61 @35027 has 102 MA's), (63, 35015), (92, 34865), (100, 34805), (106, 34769), (107, 34763), (129, 34631),

Gene: MadKillah_102 Start: 61818, Stop: 61405, Start Num: 61
Candidate Starts for MadKillah_102:
(13, 61950), (31, 61890), (40, 61869), (Start: 61 @61818 has 102 MA's), (77, 61761), (85, 61722), (100, 61626), (106, 61590), (107, 61584), (129, 61452),

Gene: Mahavrat_76 Start: 46252, Stop: 46590, Start Num: 69
Candidate Starts for Mahavrat_76:
(Start: 69 @46252 has 2 MA's), (75, 46273), (94, 46342), (97, 46348), (110, 46444),

Gene: Makemake_63 Start: 42339, Stop: 41959, Start Num: 61
Candidate Starts for Makemake_63:
(4, 42540), (34, 42396), (37, 42393), (Start: 61 @42339 has 102 MA's), (63, 42327), (100, 42171), (106, 42135), (107, 42129), (129, 41997),

Gene: Marleymoo_67 Start: 49139, Stop: 48684, Start Num: 60
Candidate Starts for Marleymoo_67:

(60, 49139), (92, 48977), (93, 48974), (100, 48917), (101, 48890), (104, 48872), (111, 48845), (121, 48776), (122, 48773), (127, 48737),

Gene: Marlia_51 Start: 45592, Stop: 45149, Start Num: 61
Candidate Starts for Marlia_51:
(Start: 61 @45592 has 102 MA's), (63, 45580), (87, 45460), (92, 45430), (100, 45370), (106, 45334), (107, 45328), (129, 45196),

Gene: Marsha_82 Start: 50494, Stop: 50108, Start Num: 61
Candidate Starts for Marsha_82:
(Start: 61 @50494 has 102 MA's), (63, 50482), (100, 50326), (106, 50290), (107, 50284), (129, 50152),

Gene: Maru_52 Start: 47257, Stop: 46910, Start Num: 61
Candidate Starts for Maru_52:
(Start: 61 @47257 has 102 MA's), (63, 47245), (100, 47125), (106, 47089), (107, 47083), (129, 46951), (130, 46933),

Gene: Marvin_10 Start: 3597, Stop: 3977, Start Num: 61
Candidate Starts for Marvin_10:
(27, 3501), (30, 3525), (Start: 61 @3597 has 102 MA's), (63, 3609), (100, 3765), (106, 3801), (107, 3807), (129, 3939),

Gene: MmasiCarm_51 Start: 45638, Stop: 45195, Start Num: 61
Candidate Starts for MmasiCarm_51:
(Start: 61 @45638 has 102 MA's), (63, 45626), (87, 45506), (92, 45476), (100, 45416), (106, 45380), (107, 45374), (129, 45242),

Gene: Modragons_91 Start: 50829, Stop: 51230, Start Num: 61
Candidate Starts for Modragons_91:
(14, 50706), (49, 50799), (53, 50808), (Start: 61 @50829 has 102 MA's), (100, 50997), (101, 51024), (104, 51042), (111, 51069), (121, 51138), (122, 51141), (127, 51177),

Gene: Moonbeam_87 Start: 50558, Stop: 50971, Start Num: 61
Candidate Starts for Moonbeam_87:
(17, 50435), (Start: 51 @50528 has 3 MA's), (53, 50537), (Start: 61 @50558 has 102 MA's), (77, 50615), (85, 50654), (100, 50750), (106, 50786), (107, 50792), (129, 50924),

Gene: Mopey_86 Start: 59779, Stop: 60174, Start Num: 58
Candidate Starts for Mopey_86:
(Start: 12 @59656 has 1 MA's), (Start: 58 @59779 has 14 MA's), (80, 59854), (97, 59926), (100, 59959), (106, 59995), (107, 60001), (129, 60133), (130, 60151),

Gene: Mortcellus_50 Start: 46245, Stop: 45802, Start Num: 61
Candidate Starts for Mortcellus_50:
(Start: 61 @46245 has 102 MA's), (63, 46233), (87, 46113), (92, 46083), (100, 46023), (106, 45987), (107, 45981), (129, 45849),

Gene: Mova_78 Start: 47116, Stop: 47487, Start Num: 59
Candidate Starts for Mova_78:
(Start: 59 @47116 has 3 MA's), (63, 47131), (100, 47251), (101, 47278), (104, 47296), (111, 47323), (121, 47392), (122, 47395), (127, 47431),

Gene: MrPhizzler_54 Start: 47284, Stop: 46895, Start Num: 61

Candidate Starts for MrPhizzler_54:
(Start: 61 @47284 has 102 MA's), (63, 47272), (100, 47116), (106, 47080), (107, 47074), (129, 46942),

Gene: Mulaychimus_51 Start: 45574, Stop: 45131, Start Num: 61
Candidate Starts for Mulaychimus_51:
(Start: 61 @45574 has 102 MA's), (63, 45562), (87, 45442), (92, 45412), (100, 45352), (106, 45316), (107, 45310), (129, 45178),

Gene: MulchExplorer_78 Start: 47402, Stop: 47863, Start Num: 26
Candidate Starts for MulchExplorer_78:
(24, 47399), (Start: 26 @47402 has 1 MA's), (44, 47459), (46, 47462), (52, 47474), (100, 47648), (106, 47684), (107, 47690), (129, 47822),

Gene: NEHalo_58 Start: 40784, Stop: 40425, Start Num: 61
Candidate Starts for NEHalo_58:
(5, 40985), (36, 40841), (39, 40838), (Start: 61 @40784 has 102 MA's), (63, 40772), (100, 40637), (106, 40601), (107, 40595), (129, 40463),

Gene: Nala_43 Start: 35539, Stop: 35096, Start Num: 61
Candidate Starts for Nala_43:
(32, 35611), (Start: 61 @35539 has 102 MA's), (63, 35527), (92, 35377), (100, 35317), (106, 35281), (107, 35275), (129, 35143),

Gene: Nibley_68 Start: 46367, Stop: 45957, Start Num: 61
Candidate Starts for Nibley_68:
(Start: 61 @46367 has 102 MA's), (63, 46355), (100, 46175), (106, 46139), (107, 46133), (129, 46001),

Gene: Nichirin_88 Start: 50205, Stop: 50606, Start Num: 61
Candidate Starts for Nichirin_88:
(14, 50082), (49, 50175), (53, 50184), (Start: 61 @50205 has 102 MA's), (100, 50373), (101, 50400), (104, 50418), (111, 50445), (121, 50514), (122, 50517), (127, 50553),

Gene: Nivrat_76 Start: 48412, Stop: 48747, Start Num: 67
Candidate Starts for Nivrat_76:
(Start: 67 @48412 has 12 MA's), (90, 48487), (96, 48493), (106, 48562), (107, 48568), (129, 48700),

Gene: Obutu_51 Start: 45593, Stop: 45150, Start Num: 61
Candidate Starts for Obutu_51:
(Start: 61 @45593 has 102 MA's), (63, 45581), (87, 45461), (92, 45431), (100, 45371), (106, 45335), (107, 45329), (129, 45197),

Gene: Ochi17_92 Start: 50436, Stop: 50837, Start Num: 61
Candidate Starts for Ochi17_92:
(14, 50313), (49, 50406), (53, 50415), (Start: 61 @50436 has 102 MA's), (100, 50604), (101, 50631), (104, 50649), (111, 50676), (121, 50745), (122, 50748), (127, 50784),

Gene: OfUltron_94 Start: 50985, Stop: 51386, Start Num: 61
Candidate Starts for OfUltron_94:
(14, 50862), (49, 50955), (53, 50964), (Start: 61 @50985 has 102 MA's), (100, 51153), (101, 51180), (104, 51198), (111, 51225), (121, 51294), (122, 51297), (127, 51333),

Gene: Ohno789_61 Start: 41528, Stop: 41148, Start Num: 61
Candidate Starts for Ohno789_61:

(4, 41729), (34, 41585), (37, 41582), (Start: 61 @41528 has 102 MA's), (63, 41516), (100, 41360), (106, 41324), (107, 41318), (129, 41186),

Gene: Oksu_91 Start: 51566, Stop: 51967, Start Num: 61
Candidate Starts for Oksu_91:
(6, 51392), (8, 51401), (10, 51425), (49, 51536), (53, 51545), (Start: 61 @51566 has 102 MA's), (100, 51734), (101, 51761), (104, 51779), (111, 51806), (121, 51875), (122, 51878), (127, 51914),

Gene: Olivio_50 Start: 45330, Stop: 45019, Start Num: 87
Candidate Starts for Olivio_50:
(Start: 61 @45462 has 102 MA's), (63, 45450), (87, 45330), (92, 45300), (100, 45240), (106, 45204), (107, 45198), (129, 45066),

Gene: PLot_85 Start: 59930, Stop: 60325, Start Num: 58
Candidate Starts for PLot_85:
(Start: 12 @59807 has 1 MA's), (Start: 58 @59930 has 14 MA's), (80, 60005), (97, 60077), (100, 60110), (106, 60146), (107, 60152), (129, 60284), (130, 60302),

Gene: Penelope2018_84 Start: 59705, Stop: 60100, Start Num: 58
Candidate Starts for Penelope2018_84:
(Start: 12 @59582 has 1 MA's), (Start: 58 @59705 has 14 MA's), (80, 59780), (97, 59852), (100, 59885), (106, 59921), (107, 59927), (129, 60059), (130, 60077),

Gene: Peridot_85 Start: 49183, Stop: 49512, Start Num: 67
Candidate Starts for Peridot_85:
(Start: 67 @49183 has 12 MA's), (90, 49258), (96, 49264), (106, 49333), (107, 49339), (129, 49471),

Gene: Phayeta_52 Start: 45475, Stop: 45032, Start Num: 61
Candidate Starts for Phayeta_52:
(Start: 61 @45475 has 102 MA's), (63, 45463), (87, 45343), (92, 45313), (100, 45253), (106, 45217), (107, 45211), (129, 45079),

Gene: PherrisBueller_60 Start: 39602, Stop: 39222, Start Num: 61
Candidate Starts for PherrisBueller_60:
(4, 39803), (34, 39659), (37, 39656), (Start: 61 @39602 has 102 MA's), (63, 39590), (100, 39434), (106, 39398), (107, 39392), (129, 39260),

Gene: PhlipPhlop_81 Start: 52533, Stop: 52862, Start Num: 67
Candidate Starts for PhlipPhlop_81:
(Start: 67 @52533 has 12 MA's), (90, 52608), (96, 52614), (106, 52683), (107, 52689), (129, 52821),

Gene: Pollywog_86 Start: 51074, Stop: 51427, Start Num: 61
Candidate Starts for Pollywog_86:
(5, 50873), (36, 51017), (39, 51020), (Start: 61 @51074 has 102 MA's), (63, 51086), (100, 51206), (106, 51242), (107, 51248), (129, 51380),

Gene: PopTart_69 Start: 45137, Stop: 45511, Start Num: 59
Candidate Starts for PopTart_69:
(Start: 59 @45137 has 3 MA's), (63, 45152), (98, 45272), (100, 45287), (108, 45329), (125, 45425), (128, 45449),

Gene: Prager_84 Start: 59610, Stop: 60005, Start Num: 58
Candidate Starts for Prager_84:

(Start: 12 @59487 has 1 MA's), (Start: 58 @59610 has 14 MA's), (80, 59685), (97, 59757), (100, 59790), (106, 59826), (107, 59832), (129, 59964), (130, 59982),

Gene: ProMouse_63 Start: 41080, Stop: 40655, Start Num: 61
Candidate Starts for ProMouse_63:
(5, 41281), (36, 41137), (39, 41134), (Start: 61 @41080 has 102 MA's), (78, 41014), (100, 40870), (106, 40834), (107, 40828), (129, 40696), (130, 40678),

Gene: RedRaider77_10 Start: 3149, Stop: 3538, Start Num: 61
Candidate Starts for RedRaider77_10:
(Start: 61 @3149 has 102 MA's), (63, 3161), (100, 3317), (106, 3353), (107, 3359), (129, 3491),

Gene: Renaud18_72 Start: 42500, Stop: 42886, Start Num: 61
Candidate Starts for Renaud18_72:
(Start: 61 @42500 has 102 MA's), (63, 42512), (68, 42539), (84, 42584), (100, 42647), (101, 42674), (104, 42692), (111, 42719), (127, 42827),

Gene: Rialto_90 Start: 50654, Stop: 51067, Start Num: 61
Candidate Starts for Rialto_90:
(17, 50531), (Start: 51 @50624 has 3 MA's), (53, 50633), (Start: 61 @50654 has 102 MA's), (77, 50711), (85, 50750), (100, 50846), (106, 50882), (107, 50888), (129, 51020),

Gene: Rimmer_43 Start: 35365, Stop: 34928, Start Num: 61
Candidate Starts for Rimmer_43:
(32, 35437), (Start: 61 @35365 has 102 MA's), (63, 35353), (92, 35203), (100, 35143), (106, 35107), (107, 35101), (129, 34969),

Gene: Rimu_53 Start: 47304, Stop: 46915, Start Num: 61
Candidate Starts for Rimu_53:
(Start: 61 @47304 has 102 MA's), (63, 47292), (100, 47136), (106, 47100), (107, 47094), (129, 46962),

Gene: Rita1961_51 Start: 45594, Stop: 45151, Start Num: 61
Candidate Starts for Rita1961_51:
(Start: 61 @45594 has 102 MA's), (63, 45582), (87, 45462), (92, 45432), (100, 45372), (106, 45336), (107, 45330), (129, 45198),

Gene: Robyn_52 Start: 47008, Stop: 46682, Start Num: 71
Candidate Starts for Robyn_52:
(21, 47167), (40, 47110), (Start: 57 @47062 has 1 MA's), (62, 47056), (Start: 71 @47008 has 1 MA's), (90, 46939), (96, 46933), (106, 46852), (107, 46846), (129, 46714),

Gene: Sabbb_88 Start: 48209, Stop: 48622, Start Num: 61
Candidate Starts for Sabbb_88:
(7, 48035), (9, 48044), (11, 48068), (17, 48086), (Start: 51 @48179 has 3 MA's), (53, 48188), (Start: 61 @48209 has 102 MA's), (77, 48266), (85, 48305), (100, 48401), (106, 48437), (107, 48443), (129, 48575),

Gene: Sandaddy_57 Start: 40445, Stop: 40086, Start Num: 61
Candidate Starts for Sandaddy_57:
(5, 40646), (36, 40502), (39, 40499), (Start: 61 @40445 has 102 MA's), (63, 40433), (100, 40298), (106, 40262), (107, 40256), (129, 40124),

Gene: SassyB_69 Start: 45137, Stop: 45511, Start Num: 59

Candidate Starts for SassyB_69:
(Start: 59 @45137 has 3 MA's), (63, 45152), (98, 45272), (100, 45287), (108, 45329), (125, 45425), (128, 45449),

Gene: ScoobyDoobyDoo_2 Start: 227, Stop: 613, Start Num: 61
Candidate Starts for ScoobyDoobyDoo_2:
(Start: 61 @227 has 102 MA's), (63, 239), (100, 395), (106, 431), (107, 437), (122, 515), (129, 569),

Gene: Scowl_62 Start: 40833, Stop: 40453, Start Num: 61
Candidate Starts for Scowl_62:
(34, 40890), (37, 40887), (Start: 61 @40833 has 102 MA's), (63, 40821), (100, 40665), (106, 40629), (107, 40623), (129, 40491),

Gene: Seabastian_94 Start: 50986, Stop: 51387, Start Num: 61
Candidate Starts for Seabastian_94:
(14, 50863), (49, 50956), (53, 50965), (Start: 61 @50986 has 102 MA's), (100, 51154), (101, 51181), (104, 51199), (111, 51226), (121, 51295), (122, 51298), (127, 51334),

Gene: Seanderson_63 Start: 42839, Stop: 42384, Start Num: 61
Candidate Starts for Seanderson_63:
(5, 43040), (36, 42896), (39, 42893), (Start: 61 @42839 has 102 MA's), (92, 42677), (93, 42674), (100, 42617), (101, 42590), (104, 42572), (111, 42545), (121, 42476), (122, 42473), (127, 42437),

Gene: Shaboozey_74 Start: 47299, Stop: 46889, Start Num: 61
Candidate Starts for Shaboozey_74:
(Start: 61 @47299 has 102 MA's), (63, 47287), (100, 47107), (106, 47071), (107, 47065), (129, 46933),

Gene: SiwenD96_6 Start: 1915, Stop: 2295, Start Num: 61
Candidate Starts for SiwenD96_6:
(Start: 61 @1915 has 102 MA's), (63, 1927), (86, 2005), (91, 2029), (100, 2071), (106, 2107), (107, 2113), (129, 2245),

Gene: Slim_89 Start: 49993, Stop: 50406, Start Num: 61
Candidate Starts for Slim_89:
(7, 49819), (9, 49828), (11, 49852), (17, 49870), (Start: 51 @49963 has 3 MA's), (53, 49972), (Start: 61 @49993 has 102 MA's), (77, 50050), (85, 50089), (100, 50185), (106, 50221), (107, 50227), (129, 50359),

Gene: SlippinJimmy_52 Start: 46376, Stop: 45933, Start Num: 61
Candidate Starts for SlippinJimmy_52:
(Start: 61 @46376 has 102 MA's), (63, 46364), (87, 46244), (92, 46214), (100, 46154), (106, 46118), (107, 46112), (129, 45980),

Gene: Soile_53 Start: 47351, Stop: 46908, Start Num: 61
Candidate Starts for Soile_53:
(Start: 61 @47351 has 102 MA's), (63, 47339), (87, 47219), (92, 47189), (100, 47129), (106, 47093), (107, 47087), (129, 46955),

Gene: Sorpresa_58 Start: 40447, Stop: 40088, Start Num: 61
Candidate Starts for Sorpresa_58:
(5, 40648), (36, 40504), (39, 40501), (Start: 61 @40447 has 102 MA's), (63, 40435), (100, 40300), (106, 40264), (107, 40258), (129, 40126),

Gene: Spartacus_85 Start: 51000, Stop: 51356, Start Num: 61
Candidate Starts for Spartacus_85:
(1, 50706), (2, 50739), (7, 50826), (9, 50835), (11, 50859), (17, 50877), (Start: 51 @50970 has 3 MA's), (53, 50979), (Start: 61 @51000 has 102 MA's), (70, 51039), (89, 51084), (100, 51147), (102, 51180), (103, 51183), (115, 51234), (117, 51240), (123, 51276), (124, 51285),

Gene: SpikeBT_59 Start: 40641, Stop: 40282, Start Num: 61
Candidate Starts for SpikeBT_59:
(5, 40842), (36, 40698), (39, 40695), (Start: 61 @40641 has 102 MA's), (63, 40629), (100, 40494), (106, 40458), (107, 40452), (129, 40320),

Gene: Starcevich_80 Start: 49749, Stop: 50078, Start Num: 67
Candidate Starts for Starcevich_80:
(Start: 67 @49749 has 12 MA's), (90, 49824), (96, 49830), (106, 49899), (107, 49905), (129, 50037),

Gene: StormChicken_44 Start: 35973, Stop: 35536, Start Num: 61
Candidate Starts for StormChicken_44:
(32, 36045), (Start: 61 @35973 has 102 MA's), (63, 35961), (92, 35811), (100, 35751), (106, 35715), (107, 35709), (129, 35577),

Gene: StrongArm_59 Start: 41777, Stop: 41397, Start Num: 61
Candidate Starts for StrongArm_59:
(34, 41834), (37, 41831), (Start: 61 @41777 has 102 MA's), (63, 41765), (100, 41609), (106, 41573), (107, 41567), (129, 41435),

Gene: SuperheroCarly_83 Start: 59679, Stop: 60074, Start Num: 58
Candidate Starts for SuperheroCarly_83:
(15, 59580), (19, 59586), (22, 59598), (Start: 58 @59679 has 14 MA's), (80, 59754), (97, 59826), (100, 59859), (106, 59895), (107, 59901), (129, 60033), (130, 60051),

Gene: SwainyDoc_51 Start: 45606, Stop: 45163, Start Num: 61
Candidate Starts for SwainyDoc_51:
(Start: 61 @45606 has 102 MA's), (63, 45594), (87, 45474), (92, 45444), (100, 45384), (106, 45348), (107, 45342), (129, 45210),

Gene: TDanisky_93 Start: 48927, Stop: 49307, Start Num: 61
Candidate Starts for TDanisky_93:
(Start: 61 @48927 has 102 MA's), (100, 49092), (106, 49128), (107, 49134), (129, 49266),

Gene: Target_79 Start: 46689, Stop: 46291, Start Num: 61
Candidate Starts for Target_79:
(Start: 61 @46689 has 102 MA's), (63, 46677), (100, 46521), (109, 46467), (112, 46458), (119, 46410), (120, 46404), (126, 46368), (128, 46350), (130, 46314),

Gene: TeamEdward_45 Start: 35970, Stop: 35533, Start Num: 61
Candidate Starts for TeamEdward_45:
(32, 36042), (Start: 61 @35970 has 102 MA's), (63, 35958), (92, 35808), (100, 35748), (106, 35712), (107, 35706), (129, 35574),

Gene: Thibault_74 Start: 51276, Stop: 51677, Start Num: 61
Candidate Starts for Thibault_74:
(16, 51156), (18, 51159), (31, 51207), (35, 51222), (Start: 61 @51276 has 102 MA's), (100, 51444), (101, 51471), (104, 51489), (111, 51516), (121, 51585), (122, 51588), (127, 51624),

Gene: Thibault_65 Start: 47312, Stop: 46869, Start Num: 61
Candidate Starts for Thibault_65:
(Start: 61 @47312 has 102 MA's), (92, 47150), (93, 47147), (100, 47090), (106, 47054), (107, 47048), (129, 46916),

Gene: Thoth_84 Start: 59759, Stop: 60154, Start Num: 58
Candidate Starts for Thoth_84:
(Start: 12 @59636 has 1 MA's), (Start: 58 @59759 has 14 MA's), (80, 59834), (97, 59906), (100, 59939), (106, 59975), (107, 59981), (129, 60113), (130, 60131),

Gene: TinyTerror_51 Start: 45641, Stop: 45198, Start Num: 61
Candidate Starts for TinyTerror_51:
(Start: 61 @45641 has 102 MA's), (63, 45629), (87, 45509), (92, 45479), (100, 45419), (106, 45383), (107, 45377), (129, 45245),

Gene: Topiatin_85 Start: 49548, Stop: 49946, Start Num: 61
Candidate Starts for Topiatin_85:
(Start: 61 @49548 has 102 MA's), (100, 49734),

Gene: Totinger_82 Start: 48545, Stop: 48874, Start Num: 67
Candidate Starts for Totinger_82:
(Start: 67 @48545 has 12 MA's), (90, 48620), (96, 48626), (106, 48695), (107, 48701), (129, 48833),

Gene: VasuNzinga_9 Start: 2804, Stop: 3184, Start Num: 61
Candidate Starts for VasuNzinga_9:
(Start: 61 @2804 has 102 MA's), (63, 2816), (100, 2972), (106, 3008), (107, 3014), (129, 3146),

Gene: Violac_81 Start: 49810, Stop: 50139, Start Num: 67
Candidate Starts for Violac_81:
(Start: 67 @49810 has 12 MA's), (82, 49846), (106, 49960), (107, 49966), (129, 50098),

Gene: Visconti_85 Start: 59720, Stop: 60115, Start Num: 58
Candidate Starts for Visconti_85:
(Start: 12 @59597 has 1 MA's), (Start: 58 @59720 has 14 MA's), (80, 59795), (97, 59867), (100, 59900), (106, 59936), (107, 59942), (129, 60074), (130, 60092),

Gene: Vivum_80 Start: 50435, Stop: 50764, Start Num: 67
Candidate Starts for Vivum_80:
(Start: 67 @50435 has 12 MA's), (90, 50510), (96, 50516), (106, 50585), (107, 50591), (129, 50723),

Gene: WaldoWhy_85 Start: 59683, Stop: 60078, Start Num: 58
Candidate Starts for WaldoWhy_85:
(Start: 12 @59560 has 1 MA's), (Start: 58 @59683 has 14 MA's), (80, 59758), (97, 59830), (100, 59863), (106, 59899), (107, 59905), (129, 60037), (130, 60055),

Gene: Xiaokay_68 Start: 48228, Stop: 47791, Start Num: 61
Candidate Starts for Xiaokay_68:
(Start: 61 @48228 has 102 MA's), (92, 48066), (93, 48063), (100, 48006), (106, 47970), (107, 47964), (129, 47832),

Gene: Youngblood_44 Start: 35976, Stop: 35539, Start Num: 61
Candidate Starts for Youngblood_44:

(32, 36048), (Start: 61 @35976 has 102 MA's), (63, 35964), (92, 35814), (100, 35754), (106, 35718), (107, 35712), (129, 35580),