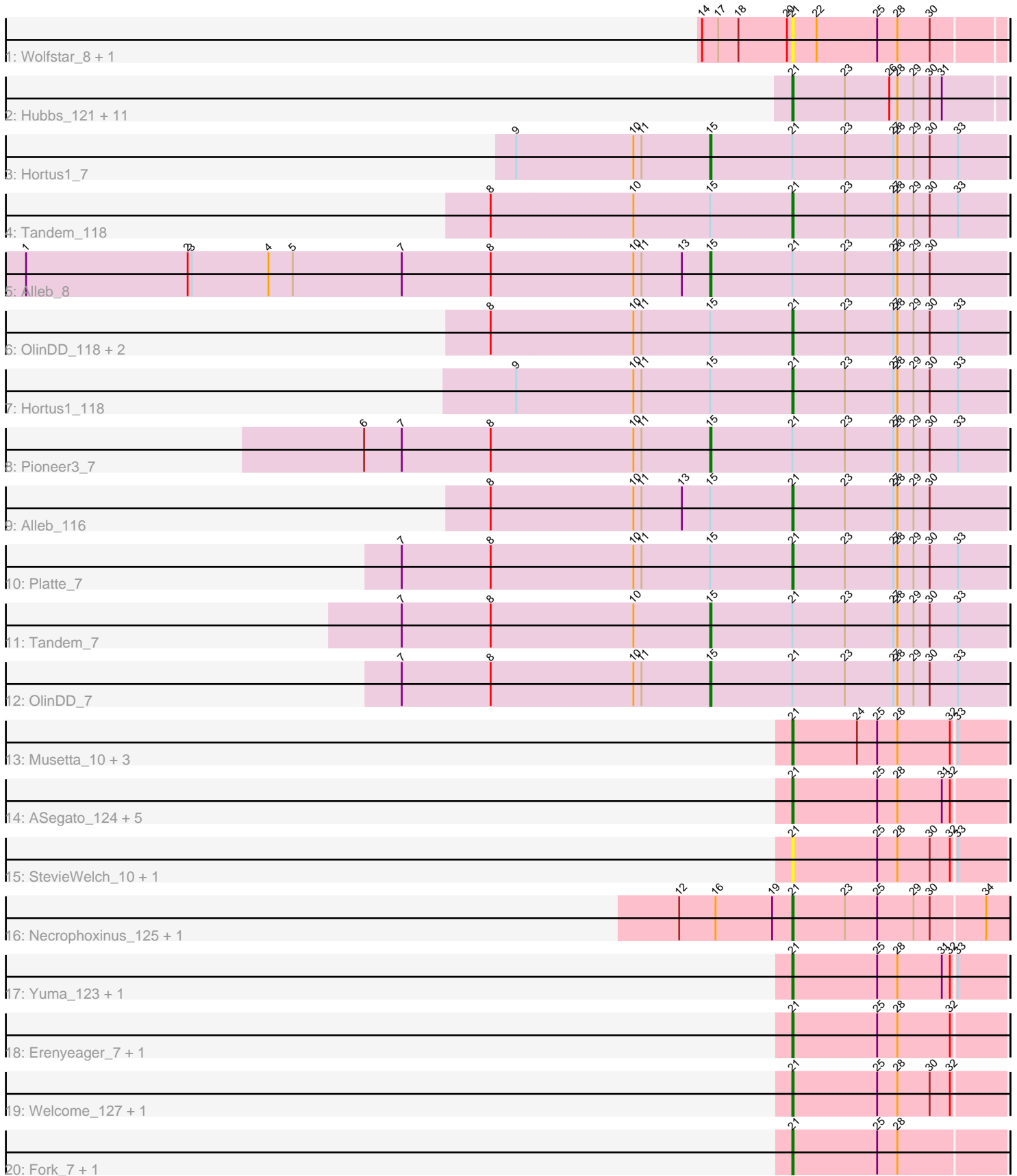


Pham 163683



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 163683 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163683 has 48 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Wolfstar\_8, Wolfstar\_124
- Track 2 : Hubbs\_121, Roman\_123, DejaVu\_7, Hubbs\_7, PhillyPhilly\_118, Pavlo\_119, Lupine\_117, PhillyPhilly\_8, Lupine\_7, DejaVu\_123, Pavlo\_7, Roman\_7
- Track 3 : Hortus1\_7
- Track 4 : Tandem\_118
- Track 5 : Alleb\_8
- Track 6 : OlinDD\_118, Platte\_117, Pioneer3\_118
- Track 7 : Hortus1\_118
- Track 8 : Pioneer3\_7
- Track 9 : Alleb\_116
- Track 10 : Platte\_7
- Track 11 : Tandem\_7
- Track 12 : OlinDD\_7
- Track 13 : Musetta\_10, Lyell\_125, Lyell\_10, Musetta\_123
- Track 14 : ASegato\_124, DustyDino\_10, ASegato\_10, DustyDino\_128, RunningBrook\_128, RunningBrook\_10
- Track 15 : StevieWelch\_10, StevieWelch\_128
- Track 16 : Necrophoxinus\_125, Necrophoxinus\_9
- Track 17 : Yuma\_123, Yuma\_10
- Track 18 : Erenyeager\_7, Erenyeager\_122
- Track 19 : Welcome\_127, Welcome\_10
- Track 20 : Fork\_7, Fork\_119

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

The start number called the most often in the published annotations is 21, it was called in 37 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ASegato\_10, ASegato\_124, Alleb\_116, DejaVu\_123, DejaVu\_7, DustyDino\_10, DustyDino\_128, Erenyeager\_122, Erenyeager\_7, Fork\_119, Fork\_7, Hortus1\_118, Hubbs\_121, Hubbs\_7, Lupine\_117, Lupine\_7, Lyell\_10, Lyell\_125, Musetta\_10, Musetta\_123, Necrophoxinus\_125, Necrophoxinus\_9, OlinDD\_118, Pavlo\_119, Pavlo\_7, PhillyPhilly\_118, PhillyPhilly\_8, Pioneer3\_118, Platte\_117, Platte\_7,

Roman\_123, Roman\_7, RunningBrook\_10, RunningBrook\_128, StevieWelch\_10, StevieWelch\_128, Tandem\_118, Welcome\_10, Welcome\_127, Wolfstar\_124, Wolfstar\_8, Yuma\_10, Yuma\_123,

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

- Alleb\_8, Hortus1\_7, OlinDD\_7, Pioneer3\_7, Tandem\_7,

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

- 

### **Summary by start number:**

Start 15:

- Found in 12 of 48 ( 25.0% ) of genes in pham
- Manual Annotations of this start: 5 of 42
- Called 41.7% of time when present
- Phage (with cluster) where this start called: Alleb\_8 (ED1), Hortus1\_7 (ED1), OlinDD\_7 (ED1), Pioneer3\_7 (ED1), Tandem\_7 (ED1),

Start 21:

- Found in 48 of 48 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 37 of 42
- Called 89.6% of time when present
- Phage (with cluster) where this start called: ASegato\_10 (ED2), ASegato\_124 (ED2), Alleb\_116 (ED1), DejaVu\_123 (ED1), DejaVu\_7 (ED1), DustyDino\_10 (ED2), DustyDino\_128 (ED2), Erenyeager\_122 (ED2), Erenyeager\_7 (ED2), Fork\_119 (ED2), Fork\_7 (ED2), Hortus1\_118 (ED1), Hubbs\_121 (ED1), Hubbs\_7 (ED1), Lupine\_117 (ED1), Lupine\_7 (ED1), Lyell\_10 (ED2), Lyell\_125 (ED2), Musetta\_10 (ED2), Musetta\_123 (ED2), Necrophoxinus\_125 (ED2), Necrophoxinus\_9 (ED2), OlinDD\_118 (ED1), Pavlo\_119 (ED1), Pavlo\_7 (ED1), PhillyPhilly\_118 (ED1), PhillyPhilly\_8 (ED1), Pioneer3\_118 (ED1), Platte\_117 (ED1), Platte\_7 (ED1), Roman\_123 (ED1), Roman\_7 (ED1), RunningBrook\_10 (ED2), RunningBrook\_128 (ED2), StevieWelch\_10 (ED2), StevieWelch\_128 (ED2), Tandem\_118 (ED1), Welcome\_10 (ED2), Welcome\_127 (ED2), Wolfstar\_124 (ED), Wolfstar\_8 (ED), Yuma\_10 (ED2), Yuma\_123 (ED2),

### **Summary by clusters:**

There are 3 clusters represented in this pham: ED2, ED, ED1,

Info for manual annotations of cluster ED1:

- Start number 15 was manually annotated 5 times for cluster ED1.
- Start number 21 was manually annotated 19 times for cluster ED1.

Info for manual annotations of cluster ED2:

- Start number 21 was manually annotated 18 times for cluster ED2.

### **Gene Information:**

Gene: ASegato\_124 Start: 62989, Stop: 62834, Start Num: 21

Candidate Starts for ASegato\_124:

(Start: 21 @62989 has 37 MA's), (25, 62926), (28, 62911), (31, 62878), (32, 62872),

Gene: ASegato\_10 Start: 3540, Stop: 3385, Start Num: 21

Candidate Starts for ASegato\_10:

(Start: 21 @3540 has 37 MA's), (25, 3477), (28, 3462), (31, 3429), (32, 3423),

Gene: Alleb\_8 Start: 3008, Stop: 2790, Start Num: 15

Candidate Starts for Alleb\_8:

(1, 3515), (2, 3395), (3, 3392), (4, 3335), (5, 3317), (7, 3236), (8, 3170), (10, 3065), (11, 3059), (13, 3029), (Start: 15 @3008 has 5 MA's), (Start: 21 @2948 has 37 MA's), (23, 2909), (27, 2873), (28, 2870), (29, 2858), (30, 2846),

Gene: Alleb\_116 Start: 62427, Stop: 62269, Start Num: 21

Candidate Starts for Alleb\_116:

(8, 62649), (10, 62544), (11, 62538), (13, 62508), (Start: 15 @62487 has 5 MA's), (Start: 21 @62427 has 37 MA's), (23, 62388), (27, 62352), (28, 62349), (29, 62337), (30, 62325),

Gene: DejaVu\_7 Start: 2697, Stop: 2542, Start Num: 21

Candidate Starts for DejaVu\_7:

(Start: 21 @2697 has 37 MA's), (23, 2658), (26, 2625), (28, 2619), (29, 2607), (30, 2595), (31, 2586),

Gene: DejaVu\_123 Start: 63077, Stop: 62922, Start Num: 21

Candidate Starts for DejaVu\_123:

(Start: 21 @63077 has 37 MA's), (23, 63038), (26, 63005), (28, 62999), (29, 62987), (30, 62975), (31, 62966),

Gene: DustyDino\_10 Start: 3578, Stop: 3423, Start Num: 21

Candidate Starts for DustyDino\_10:

(Start: 21 @3578 has 37 MA's), (25, 3515), (28, 3500), (31, 3467), (32, 3461),

Gene: DustyDino\_128 Start: 63668, Stop: 63513, Start Num: 21

Candidate Starts for DustyDino\_128:

(Start: 21 @63668 has 37 MA's), (25, 63605), (28, 63590), (31, 63557), (32, 63551),

Gene: Erenyeager\_7 Start: 2956, Stop: 2801, Start Num: 21

Candidate Starts for Erenyeager\_7:

(Start: 21 @2956 has 37 MA's), (25, 2893), (28, 2878), (32, 2839),

Gene: Erenyeager\_122 Start: 62617, Stop: 62462, Start Num: 21

Candidate Starts for Erenyeager\_122:

(Start: 21 @62617 has 37 MA's), (25, 62554), (28, 62539), (32, 62500),

Gene: Fork\_7 Start: 2844, Stop: 2689, Start Num: 21

Candidate Starts for Fork\_7:

(Start: 21 @2844 has 37 MA's), (25, 2781), (28, 2766),

Gene: Fork\_119 Start: 61835, Stop: 61680, Start Num: 21

Candidate Starts for Fork\_119:

(Start: 21 @61835 has 37 MA's), (25, 61772), (28, 61757),

Gene: Hortus1\_7 Start: 2961, Stop: 2743, Start Num: 15

Candidate Starts for Hortus1\_7:

(9, 3105), (10, 3018), (11, 3012), (Start: 15 @2961 has 5 MA's), (Start: 21 @2901 has 37 MA's), (23, 2862), (27, 2826), (28, 2823), (29, 2811), (30, 2799), (33, 2778),

Gene: Hortus1\_118 Start: 62861, Stop: 62703, Start Num: 21

Candidate Starts for Hortus1\_118:

(9, 63065), (10, 62978), (11, 62972), (Start: 15 @62921 has 5 MA's), (Start: 21 @62861 has 37 MA's), (23, 62822), (27, 62786), (28, 62783), (29, 62771), (30, 62759), (33, 62738),

Gene: Hubbs\_121 Start: 63600, Stop: 63445, Start Num: 21

Candidate Starts for Hubbs\_121:

(Start: 21 @63600 has 37 MA's), (23, 63561), (26, 63528), (28, 63522), (29, 63510), (30, 63498), (31, 63489),

Gene: Hubbs\_7 Start: 3201, Stop: 3046, Start Num: 21

Candidate Starts for Hubbs\_7:

(Start: 21 @3201 has 37 MA's), (23, 3162), (26, 3129), (28, 3123), (29, 3111), (30, 3099), (31, 3090),

Gene: Lupine\_117 Start: 62271, Stop: 62116, Start Num: 21

Candidate Starts for Lupine\_117:

(Start: 21 @62271 has 37 MA's), (23, 62232), (26, 62199), (28, 62193), (29, 62181), (30, 62169), (31, 62160),

Gene: Lupine\_7 Start: 2998, Stop: 2843, Start Num: 21

Candidate Starts for Lupine\_7:

(Start: 21 @2998 has 37 MA's), (23, 2959), (26, 2926), (28, 2920), (29, 2908), (30, 2896), (31, 2887),

Gene: Lyell\_125 Start: 62460, Stop: 62305, Start Num: 21

Candidate Starts for Lyell\_125:

(Start: 21 @62460 has 37 MA's), (24, 62412), (25, 62397), (28, 62382), (32, 62343), (33, 62340),

Gene: Lyell\_10 Start: 3293, Stop: 3138, Start Num: 21

Candidate Starts for Lyell\_10:

(Start: 21 @3293 has 37 MA's), (24, 3245), (25, 3230), (28, 3215), (32, 3176), (33, 3173),

Gene: Musetta\_10 Start: 3554, Stop: 3399, Start Num: 21

Candidate Starts for Musetta\_10:

(Start: 21 @3554 has 37 MA's), (24, 3506), (25, 3491), (28, 3476), (32, 3437), (33, 3434),

Gene: Musetta\_123 Start: 63349, Stop: 63194, Start Num: 21

Candidate Starts for Musetta\_123:

(Start: 21 @63349 has 37 MA's), (24, 63301), (25, 63286), (28, 63271), (32, 63232), (33, 63229),

Gene: Necrophoxinus\_125 Start: 63328, Stop: 63170, Start Num: 21

Candidate Starts for Necrophoxinus\_125:

(12, 63412), (16, 63385), (19, 63343), (Start: 21 @63328 has 37 MA's), (23, 63289), (25, 63265), (29, 63238), (30, 63226), (34, 63187),

Gene: Necrophoxinus\_9 Start: 3085, Stop: 2927, Start Num: 21

Candidate Starts for Necrophoxinus\_9:

(12, 3169), (16, 3142), (19, 3100), (Start: 21 @3085 has 37 MA's), (23, 3046), (25, 3022), (29, 2995), (30, 2983), (34, 2944),

Gene: OlinDD\_118 Start: 62866, Stop: 62708, Start Num: 21

Candidate Starts for OlinDD\_118:

(8, 63088), (10, 62983), (11, 62977), (Start: 15 @62926 has 5 MA's), (Start: 21 @62866 has 37 MA's), (23, 62827), (27, 62791), (28, 62788), (29, 62776), (30, 62764), (33, 62743),

Gene: OlinDD\_7 Start: 2961, Stop: 2743, Start Num: 15

Candidate Starts for OlinDD\_7:

(7, 3189), (8, 3123), (10, 3018), (11, 3012), (Start: 15 @2961 has 5 MA's), (Start: 21 @2901 has 37 MA's), (23, 2862), (27, 2826), (28, 2823), (29, 2811), (30, 2799), (33, 2778),

Gene: Pavlo\_119 Start: 63348, Stop: 63193, Start Num: 21

Candidate Starts for Pavlo\_119:

(Start: 21 @63348 has 37 MA's), (23, 63309), (26, 63276), (28, 63270), (29, 63258), (30, 63246), (31, 63237),

Gene: Pavlo\_7 Start: 3092, Stop: 2937, Start Num: 21

Candidate Starts for Pavlo\_7:

(Start: 21 @3092 has 37 MA's), (23, 3053), (26, 3020), (28, 3014), (29, 3002), (30, 2990), (31, 2981),

Gene: PhillyPhilly\_118 Start: 62607, Stop: 62452, Start Num: 21

Candidate Starts for PhillyPhilly\_118:

(Start: 21 @62607 has 37 MA's), (23, 62568), (26, 62535), (28, 62529), (29, 62517), (30, 62505), (31, 62496),

Gene: PhillyPhilly\_8 Start: 3118, Stop: 2963, Start Num: 21

Candidate Starts for PhillyPhilly\_8:

(Start: 21 @3118 has 37 MA's), (23, 3079), (26, 3046), (28, 3040), (29, 3028), (30, 3016), (31, 3007),

Gene: Pioneer3\_7 Start: 2994, Stop: 2776, Start Num: 15

Candidate Starts for Pioneer3\_7:

(6, 3249), (7, 3222), (8, 3156), (10, 3051), (11, 3045), (Start: 15 @2994 has 5 MA's), (Start: 21 @2934 has 37 MA's), (23, 2895), (27, 2859), (28, 2856), (29, 2844), (30, 2832), (33, 2811),

Gene: Pioneer3\_118 Start: 62697, Stop: 62539, Start Num: 21

Candidate Starts for Pioneer3\_118:

(8, 62919), (10, 62814), (11, 62808), (Start: 15 @62757 has 5 MA's), (Start: 21 @62697 has 37 MA's), (23, 62658), (27, 62622), (28, 62619), (29, 62607), (30, 62595), (33, 62574),

Gene: Platte\_7 Start: 2923, Stop: 2765, Start Num: 21

Candidate Starts for Platte\_7:

(7, 3211), (8, 3145), (10, 3040), (11, 3034), (Start: 15 @2983 has 5 MA's), (Start: 21 @2923 has 37 MA's), (23, 2884), (27, 2848), (28, 2845), (29, 2833), (30, 2821), (33, 2800),

Gene: Platte\_117 Start: 62471, Stop: 62313, Start Num: 21

Candidate Starts for Platte\_117:

(8, 62693), (10, 62588), (11, 62582), (Start: 15 @62531 has 5 MA's), (Start: 21 @62471 has 37 MA's), (23, 62432), (27, 62396), (28, 62393), (29, 62381), (30, 62369), (33, 62348),

Gene: Roman\_123 Start: 63997, Stop: 63842, Start Num: 21

Candidate Starts for Roman\_123:

(Start: 21 @63997 has 37 MA's), (23, 63958), (26, 63925), (28, 63919), (29, 63907), (30, 63895), (31, 63886),

Gene: Roman\_7 Start: 2910, Stop: 2755, Start Num: 21

Candidate Starts for Roman\_7:

(Start: 21 @2910 has 37 MA's), (23, 2871), (26, 2838), (28, 2832), (29, 2820), (30, 2808), (31, 2799),

Gene: RunningBrook\_128 Start: 63668, Stop: 63513, Start Num: 21

Candidate Starts for RunningBrook\_128:

(Start: 21 @63668 has 37 MA's), (25, 63605), (28, 63590), (31, 63557), (32, 63551),

Gene: RunningBrook\_10 Start: 3578, Stop: 3423, Start Num: 21

Candidate Starts for RunningBrook\_10:

(Start: 21 @3578 has 37 MA's), (25, 3515), (28, 3500), (31, 3467), (32, 3461),

Gene: StevieWelch\_10 Start: 3469, Stop: 3314, Start Num: 21

Candidate Starts for StevieWelch\_10:

(Start: 21 @3469 has 37 MA's), (25, 3406), (28, 3391), (30, 3367), (32, 3352), (33, 3349),

Gene: StevieWelch\_128 Start: 63715, Stop: 63560, Start Num: 21

Candidate Starts for StevieWelch\_128:

(Start: 21 @63715 has 37 MA's), (25, 63652), (28, 63637), (30, 63613), (32, 63598), (33, 63595),

Gene: Tandem\_118 Start: 62871, Stop: 62713, Start Num: 21

Candidate Starts for Tandem\_118:

(8, 63093), (10, 62988), (Start: 15 @62931 has 5 MA's), (Start: 21 @62871 has 37 MA's), (23, 62832), (27, 62796), (28, 62793), (29, 62781), (30, 62769), (33, 62748),

Gene: Tandem\_7 Start: 3088, Stop: 2870, Start Num: 15

Candidate Starts for Tandem\_7:

(7, 3316), (8, 3250), (10, 3145), (Start: 15 @3088 has 5 MA's), (Start: 21 @3028 has 37 MA's), (23, 2989), (27, 2953), (28, 2950), (29, 2938), (30, 2926), (33, 2905),

Gene: Welcome\_127 Start: 63695, Stop: 63540, Start Num: 21

Candidate Starts for Welcome\_127:

(Start: 21 @63695 has 37 MA's), (25, 63632), (28, 63617), (30, 63593), (32, 63578),

Gene: Welcome\_10 Start: 3551, Stop: 3396, Start Num: 21

Candidate Starts for Welcome\_10:

(Start: 21 @3551 has 37 MA's), (25, 3488), (28, 3473), (30, 3449), (32, 3434),

Gene: Wolfstar\_8 Start: 3487, Stop: 3335, Start Num: 21

Candidate Starts for Wolfstar\_8:

(14, 3553), (17, 3541), (18, 3526), (20, 3490), (Start: 21 @3487 has 37 MA's), (22, 3469), (25, 3424), (28, 3409), (30, 3385),

Gene: Wolfstar\_124 Start: 64628, Stop: 64476, Start Num: 21

Candidate Starts for Wolfstar\_124:

(14, 64694), (17, 64682), (18, 64667), (20, 64631), (Start: 21 @64628 has 37 MA's), (22, 64610), (25, 64565), (28, 64550), (30, 64526),

Gene: Yuma\_123 Start: 62501, Stop: 62346, Start Num: 21

Candidate Starts for Yuma\_123:

(Start: 21 @62501 has 37 MA's), (25, 62438), (28, 62423), (31, 62390), (32, 62384), (33, 62381),

Gene: Yuma\_10 Start: 3450, Stop: 3295, Start Num: 21

Candidate Starts for Yuma\_10:

(Start: 21 @3450 has 37 MA's), (25, 3387), (28, 3372), (31, 3339), (32, 3333), (33, 3330),