

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 4966 Report

This analysis was run 04/05/24 on database version 557.

Pham number 4966 has 14 members, 2 are drafts.

Phages represented in each track:

• Track 1 : Cuke 49

• Track 2 : Fowlmouth\_53, MrMiyagi\_52

Track 3: Indlulamithi 49

Track 4: Send513\_58, MontyDev\_58, Papyrus\_58, Candle\_56

Track 5: Yelo\_56, Weiss13\_57, Zenon\_58, Nilo\_59, Riparian\_59

• Track 6 : Rope\_58

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

The start number called the most often in the published annotations is 5, it was called in 6 of the 12 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Indlulamithi\_49, Nilo\_59, Riparian\_59, Rope\_58, Weiss13\_57, Yelo\_56, Zenon\_58,

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

Candle\_56, MontyDev\_58, Papyrus\_58, Send513\_58,

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

Cuke\_49, Fowlmouth\_53, MrMiyagi\_52,

## **Summary by start number:**

#### Start 4:

- Found in 11 of 14 (78.6%) of genes in pham
- Manual Annotations of this start: 3 of 12
- Called 36.4% of time when present
- Phage (with cluster) where this start called: Candle\_56 (R), MontyDev\_58 (R), Papyrus\_58 (R), Send513\_58 (R),

### Start 5:

- Found in 11 of 14 (78.6%) of genes in pham
- Manual Annotations of this start: 6 of 12
- Called 63.6% of time when present

• Phage (with cluster) where this start called: Indlulamithi\_49 (AC), Nilo\_59 (R), Riparian\_59 (R), Rope\_58 (R), Weiss13\_57 (R), Yelo\_56 (R), Zenon\_58 (R),

### Start 6:

- Found in 3 of 14 (21.4%) of genes in pham
- Manual Annotations of this start: 3 of 12
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke\_49 (AC), Fowlmouth\_53 (AC), MrMiyagi\_52 (AC),

## **Summary by clusters:**

There are 2 clusters represented in this pham: AC, R,

Info for manual annotations of cluster AC:

- •Start number 5 was manually annotated 1 time for cluster AC.
- •Start number 6 was manually annotated 3 times for cluster AC.

Info for manual annotations of cluster R:

- •Start number 4 was manually annotated 3 times for cluster R.
- •Start number 5 was manually annotated 5 times for cluster R.

### Gene Information:

Gene: Candle\_56 Start: 43390, Stop: 43617, Start Num: 4

Candidate Starts for Candle\_56:

(Start: 4 @43390 has 3 MA's), (Start: 5 @43396 has 6 MA's), (8, 43414), (11, 43447), (12, 43456), (14, 43486), (15, 43501), (18, 43525), (19, 43540), (20, 43585), (21, 43597), (22, 43603),

Gene: Cuke 49 Start: 34317, Stop: 34526, Start Num: 6

Candidate Starts for Cuke 49:

(Start: 6 @34317 has 3 MA's), (7, 34320), (9, 34350), (10, 34353), (12, 34368), (15, 34413), (16, 34434), (21, 34512),

Gene: Fowlmouth\_53 Start: 37720, Stop: 37932, Start Num: 6

Candidate Starts for Fowlmouth\_53:

(3, 37696), (Start: 6 @ 37720 has 3 MA's), (7, 37723), (11, 37765), (13, 37795), (15, 37819), (17, 37843), (21, 37918), (22, 37924),

Gene: Indlulamithi\_49 Start: 38727, Stop: 38954, Start Num: 5

Candidate Starts for Indlulamithi 49:

(1, 38646), (2, 38658), (Start: 4 @38721 has 3 MA's), (Start: 5 @38727 has 6 MA's), (7, 38733), (14, 38820), (20, 38922),

Gene: MontyDev\_58 Start: 43037, Stop: 43264, Start Num: 4

Candidate Starts for MontyDev\_58:

(Start: 4 @ 43037 has 3 MA's), (Start: 5 @ 43043 has 6 MA's), (8, 43061), (11, 43094), (12, 43103), (14, 43133), (15, 43148), (18, 43172), (19, 43187), (20, 43232), (21, 43244), (22, 43250),

Gene: MrMiyagi\_52 Start: 38104, Stop: 38316, Start Num: 6

Candidate Starts for MrMiyagi\_52:

(3, 38080), (Start: 6 @38104 has 3 MA's), (7, 38107), (11, 38149), (13, 38179), (15, 38203), (17, 38227), (21, 38302), (22, 38308),

Gene: Nilo\_59 Start: 43395, Stop: 43616, Start Num: 5

Candidate Starts for Nilo\_59:

(Start: 4 @ 43389 has 3 MA's), (Start: 5 @ 43395 has 6 MA's), (8, 43413), (11, 43446), (12, 43455), (14, 43485), (15, 43500), (18, 43524), (19, 43539), (20, 43584), (21, 43596), (22, 43602),

Gene: Papyrus\_58 Start: 43245, Stop: 43472, Start Num: 4

Candidate Starts for Papyrus\_58:

(Start: 4 @ 43245 has 3 MA's), (Start: 5 @ 43251 has 6 MA's), (8, 43269), (11, 43302), (12, 43311), (14, 43341), (15, 43356), (18, 43380), (19, 43395), (20, 43440), (21, 43452), (22, 43458),

Gene: Riparian\_59 Start: 42843, Stop: 43064, Start Num: 5

Candidate Starts for Riparian\_59:

(Start: 4 @ 42837 has 3 MA's), (Start: 5 @ 42843 has 6 MA's), (8, 42861), (11, 42894), (12, 42903), (14, 42933), (15, 42948), (18, 42972), (19, 42987), (20, 43032), (21, 43044), (22, 43050),

Gene: Rope 58 Start: 43240, Stop: 43461, Start Num: 5

Candidate Starts for Rope\_58:

(Start: 4 @ 43234 has 3 MA's), (Start: 5 @ 43240 has 6 MA's), (8, 43258), (11, 43291), (12, 43300), (15, 43345), (17, 43366), (18, 43369), (19, 43384), (21, 43441), (22, 43447),

Gene: Send513\_58 Start: 43370, Stop: 43597, Start Num: 4

Candidate Starts for Send513 58:

(Start: 4 @ 43370 has 3 MA's), (Start: 5 @ 43376 has 6 MA's), (8, 43394), (11, 43427), (12, 43436), (14, 43466), (15, 43481), (18, 43505), (19, 43520), (20, 43565), (21, 43577), (22, 43583),

Gene: Weiss13\_57 Start: 43080, Stop: 43301, Start Num: 5

Candidate Starts for Weiss13\_57:

(Start: 4 @ 43074 has 3 MA's), (Start: 5 @ 43080 has 6 MA's), (8, 43098), (11, 43131), (12, 43140), (14, 43170), (15, 43185), (18, 43209), (19, 43224), (20, 43269), (21, 43281), (22, 43287),

Gene: Yelo 56 Start: 43459, Stop: 43680, Start Num: 5

Candidate Starts for Yelo 56:

(Start: 4 @ 43453 has 3 MA's), (Start: 5 @ 43459 has 6 MA's), (8, 43477), (11, 43510), (12, 43519), (14, 43549), (15, 43564), (18, 43588), (19, 43603), (20, 43648), (21, 43660), (22, 43666),

Gene: Zenon\_58 Start: 43405, Stop: 43626, Start Num: 5

Candidate Starts for Zenon\_58:

(Start: 4 @43399 has 3 MA's), (Start: 5 @43405 has 6 MA's), (8, 43423), (11, 43456), (12, 43465), (14, 43495), (15, 43510), (18, 43534), (19, 43549), (20, 43594), (21, 43606), (22, 43612),