Well infection index = \( \frac{\# \text{infected cells}}{\# \text{cells}} \)

- \( f_1 \): mean Cy3 intensity perinucleus
- \( f_2 \): mean Cy3 intensity cell
- \( f_3 \): mean Cy3 intensity perinucleus

Single cell level:
- \( T_1 \) frequency in plate
- \( f_1 > T_1 \): Yes
- \( f_2 > T_2 \): Yes
- \( f_3 > T_3 \): Yes

Well level:
- Well infection index

Full data level:
- 384-well assay plate (501 in total)
- 11 siRNAs & 1 pooled siRNA
- 826 genes
- 8 pathogens

Effect of gene \( g \) on pathogen \( p \):
- \( c_{pg} = b_{pg} + a_g \)
- \( c_{pg} \): effect of gene \( g \) on pathogen \( p \)
- \( b_{pg} \): FDR of gene \( g \) on pathogen \( p \)