

## Mallard - Cloaca Swab Virus Titer MLR model supporting material

**Global Model:**  $\text{Swab Titer} = 1 + \text{factor}(Sex) + \text{mass} + \text{age} + \text{BCS} + \text{factor}(group) + \text{ProximalPC} + \text{Ileum Villi} + \text{Ileum Brush Border} + \text{Ileum Crypts} + \text{CecumPC} + \text{Colon Villi} + \text{Colon Brush Border} + \text{Colon Crypts}$

**Final Model:**  $\text{Swab Titer} = 1 + \text{factor}(Sex) + \text{ProximalPC} + \text{Ileum Villi} + \text{Ileum Brush Border}$

Step	Model	AIC	$\Delta\text{AIC}$
NA	Global	26.83	NA
1	Global - group	23.12	3.70
2	Step 1 - Ileum Crypts	21.14	1.99
3	Step 2 - Cecum PC	19.20	1.94
4	Step 3 - age	17.83	1.37
5	Step 4 - mass	16.11	1.72
6	Step 5 - Colon Crypts	14.55	1.56
7	Step 6 - BCS	14.07	0.48
8	Step 7 - Colon BB	13.22	0.86
9	Step 8 - Colon Villi	11.44	1.77

## Residual Plots

