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**Evaluation of the Samsung Ion Device against
the Avian H5N1 Influenza NIBRG-14 virus –
additional analysis**

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INTRODUCTION

This report represents additional analysis of the data associated with finalised study RON-PCS-001. The report contains a reproduction of some of the data obtained in the RON-PCS-001 Final Report in addition to further comments and analysis as detailed in the results section below.

RESULTS

Reduction in avian Influenza NIBRG-14 (H5N1) virus titre

Table 1 Reduction in virus titre of avian Influenza NIBRG-14 (H5N1) virus after treatment with the test article

Exposure time (mins)	Mean virus titre (Log ₁₀ TCID ₅₀ /mL)		Standard Deviation		Reduction	
	Not Ion-treated	Ion-treated	Not ION-treated	ION-treated	Log ₁₀ TCID ₅₀ /mL	Percentage (%)
10	3.24	2.55	0.19	0.38	0.69	79.6
30	2.72	1.41	0.33	0.39	1.31	95.1
60*	1.94	-0.03	-	-	1.97	98.92
90*	1.16	-2.01	-	-	3.17	99.93
120*	0.38	-3.72	-	-	4.10	99.99

*results for timepoints 60 minutes to 120 minutes are theoretical values extrapolated from the experimental data of RON-PCS-001.

Using the experimental data obtained during the RON-PCS-001 study to extrapolate theoretical data for later time points, this suggests that it may be possible to demonstrate a 99.99% reduction.

To demonstrate this experimentally, the process requires further optimisation such that the loss in virus purely from the experimental process, independent of the ioniser, is reduced from an approximately 5 log₁₀ TCID₅₀/mL reduction seen in the experiments conducted under RON-PCS-001 to approximately 2 log₁₀ TCID₅₀/mL.