

Appendix

Propylene glycol inactivates respiratory viruses and prevents airborne transmission

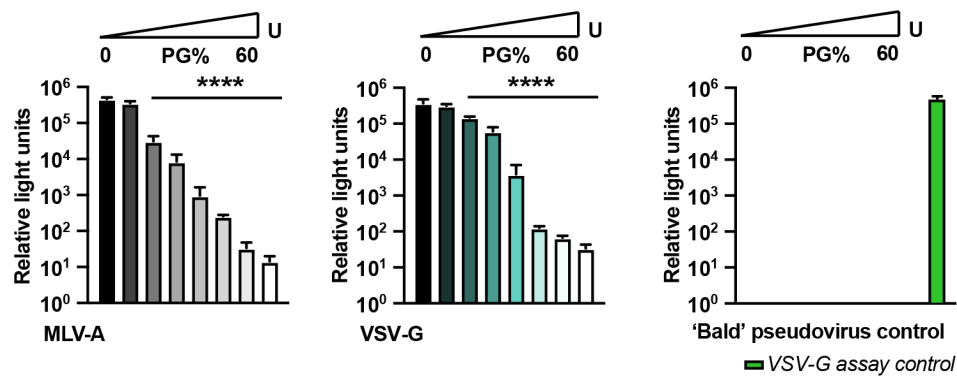
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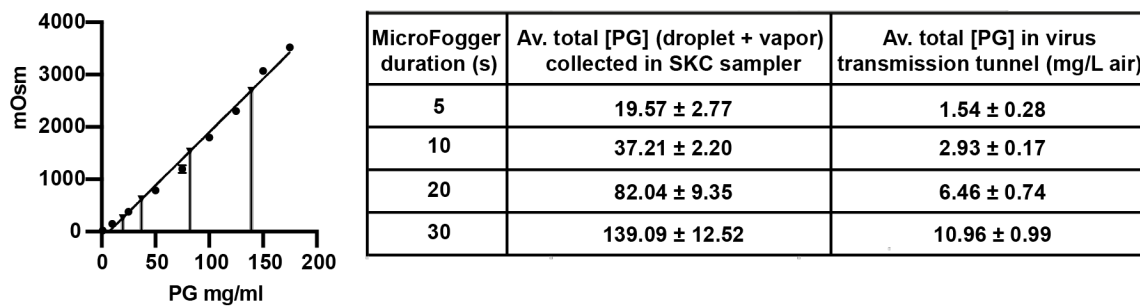
- Appendix Figure S1: Page 2
- Appendix Figure S2: Page 3
- Appendix Figure S3: Page 4
- Appendix Table S1: Page 5
- Appendix Table S2: Page 6
- Appendix Table S3: Page 9

Appendix Figure S1. PG exhibits virucidal activity against pseudoviruses expressing viral glycoproteins.



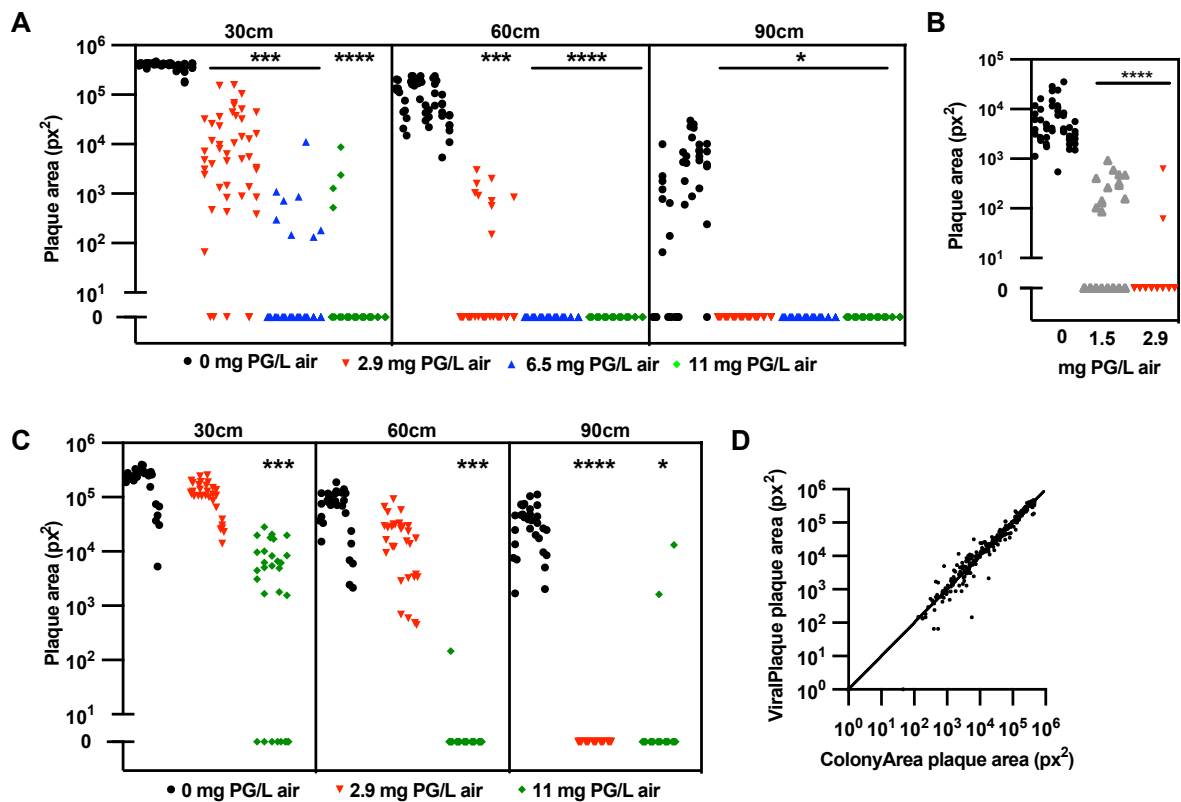
Lentivirus pseudotypes containing different viral glycoproteins from MLV-A (amphotropic murine leukaemia virus) and VSV-G (vesicular stomatitis virus), and a 'bald' pseudovirus without viral glycoprotein were incubated with 0-60% [PG] for 5min at RT. Virus infectivity was assessed by firefly luciferase luminescence (N=2, n=3; mean $\pm$ SD). White bars show background luminescence from mock infected cells. 1-way ANOVA [PG] ****P<0.0001.

Appendix Figure S2. Quantification of PG vapor within the virus transmission tunnel.



PG vapor was introduced into the transmission tunnel using a MicroFogger 2 device activated for different durations (0, 5, 10, 20 and 30s)(N=3 for each duration). Air flow was switched on and total airborne PG within the tunnel (droplets plus vapor) collected in a connected SKC sampler. Osmolarity of the PG samples was assessed (N=3, n=3; mean±SD) and their concentration determined by comparison to the osmolarity of different [PG] standards.

Appendix Figure S3. Virus transmission tunnel: Computational determination of IAV and SARS-CoV-2 plaque area is consistent between ImageJ ColonyArea and ViralPlaque analyses.



As an *in vitro* model of viral transmission, the IVT has caveats to be considered: nebulised virus droplets are uniform compared to the heterogenous nature of aerosols and respiratory droplets and they also lack respiratory secretions and accompanying salts, glycoproteins and lipids found *in vivo*. **(A)** PG vapor was introduced into the virus transmission tunnel to a final concentration of 0-11 mg/L air prior to nebulization of 10⁶ PFU IAV. Viral plaque area on tissue culture plates at 30, 60 and 90cm from nebulizer was computationally analysed using ImageJ ViralPlaque plugin (N=8, n=6). 2-way ANOVA ([PG] x distance): [PG] ****P<0.0001, distance ****P<0.0001, interaction ****P<0.0001. **(B)**. PG vapor was introduced into the virus transmission tunnel to a final concentration of 0-2.9 mg/L air prior to nebulization of 10⁴ PFU IAV. Viral plaque area on plates at 30cm distance from nebulizer was computationally analysed as per **(A)** (N=8, n=6); 1-way ANOVA [PG] ****P<0.0001. **(C)** PG vapor was introduced into the virus transmission tunnel to a final concentration of 0-11 mg PG air prior to nebulization of 3x10⁴ PFU SARS-CoV-2. Viral plaque area was assessed as per **(A)** (N=5, n=6). Differential spacial distribution of IAV and SARS-CoV-2 particles on cell culture plates may reflect specific PG inactivation thresholds or differential infection efficiency of respective permissive cells. 2-way ANOVA [treatment x distance]: treatment ***P<0.001, distance ****P<0.0001, interaction ****P<0.0001. **(D)** Comparison of ColonyArea and ViralPlaque analyses (R²= 0.9648).

Appendix Table S1: Conversion of PG solution from % v/v to g/L or g/kg mouse weight.

PG solution conversion from % (v/v) to g/L

% PG	RT density (g/L)	g/L of PG at RT	40°C density (g/L)	g/L of PG at 40°C
0	0.998	0	0.993	0
10	1.006	100.6	0.998	99.8
20	1.014	202.8	1.004	200.8
30	1.022	306.6	1.01	303
40	1.03	412	1.016	406.4
50	1.038	519	1.023	511.5
60	1.046	627.6	1.029	617.4

Intranasal PG dose per mouse (g/kg)

- Specific gravity 20% PG solution: 1.017 g/L
- Volume: 0.00005 L
- Total solution mass: $1.017 \times 0.00005 = 0.00005085$ g
- PG mass: $0.00005085 / 5 = 0.00001017$ g
- **PG dose for average 30g mouse: $0.00001017 \times (1000/30) = 0.000339$ g/kg**

Appendix Table S2. Degrees of freedom, replicates and F value for data analysed by ANOVA statistical methods. N=biological replicates, n=technical replicates. ANOVA multiple comparisons: Dunnett (1-way) & Tukey (2-way).

Figure	ANOVA Type	Figure section		Degree of Freedom	F value (DFn, DFd)	Replicates
1A/EV1A	2-way ANOVA (Dunnett's)	IAV RT	Interaction	12	F (12, 21) = 27.09	N=2
			Time	2	F (2, 21) = 108.8	
			PG level	6	F (6, 21) = 369.7	
1B/EV1B	2-way ANOVA (Dunnett's)	IAV 32	Interaction	12	F (12, 21) = 5.572	N=2
			Time	2	F (2, 21) = 26.63	
			PG level	6	F (6, 21) = 113.5	
1C/EV1C	2-way ANOVA (Dunnett's)	IAV 37	Interaction	12	F (12, 21) = 13.17	N=2
			Time	2	F (2, 21) = 61.50	
			PG level	6	F (6, 21) = 109.7	
1D/EV1D	2-way ANOVA (Dunnett's)	IAV 37	Interaction	12	F (12, 21) = 16.32	N=2
			Time	2	F (2, 21) = 135.1	
			PG level	6	F (6, 21) = 113.7	
1E/EV1E	2-way ANOVA (Dunnett's)	IAV 32	Interaction	12	F (12, 21) = 3.959	N=2
			Time	2	F (2, 21) = 30.80	
			PG level	6	F (6, 21) = 84.95	
1F/EV1F	2-way ANOVA (Dunnett's)	IAV RT	Interaction	12	F (12, 21) = 16.47	N=2
			Time	2	F (2, 21) = 153.9	
			PG level	6	F (6, 21) = 100.2	
2A/EV3A	2-way ANOVA (Tukey's)	SARS-CoV-2	Interaction	4	F (4, 6) = 0.9989	N=2, n=4
			Time	2	F (1.0, 3.0) = 1.002	
			PG level	2	F (2, 3) = 26.72	
2B/EV3B	2-way ANOVA (Tukey's)	EBV	Interaction	8	F (4, 9) = 35.13	N=2
			Time	4	F (2, 9) = 62.90	
			PG level	2	F (2, 9) = 281.5	
2D	1-way ANOVA (Dunnett's)	Ebola-	Treatment (between columns)	6	F (6, 35) = 219.7	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		NL63 Coronavirus-	Treatment (between columns)	6	F (6, 35) = 43.52	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		SARS-CoV-1-	Treatment (between columns)	6	F (6, 35) = 671.6	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		SARS-CoV-2 Wuhan 1-	Treatment (between columns)	6	F (6, 35) = 375.2	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		SARS-CoV-2 D614G-	Treatment (between columns)	6	F (6, 35) = 3528	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		SARS-CoV-2 Alpha-	Treatment (between columns)	6	F (6, 35) = 458.0	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		VZV-	Treatment (between columns)	6	F (7, 40) = 100.1	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		Ampho-	Treatment (between columns)	6	F (7, 40) = 381.7	N=2, n=3
		Pseudovirus	Residual (within columns)	35		

		SARS-CoV-2 Delta	Treatment (between columns)	6	$F(6, 35) = 538.9$	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		SARS-CoV-2 Omicron	Treatment (between columns)	6	$F(6, 35) = 288.9$	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		MERS	Treatment (between columns)	6	$F(6, 35) = 113.4$	N=2, n=3
		Pseudovirus	Residual (within columns)	35		
		229E	Treatment (between columns)	6	$F(6, 35) = 104.7$	N=2, n=3
		Pseudovirus	Residual (within columns)	$F(6, 35) = 458.0$		
3D/EV4B	2-way ANOVA (Dunnett's)	RV 37	Interaction	6	$F(6, 12) = 82.27$	N=2
			Time	3	$F(3, 12) = 228.6$	
			PG level	2	$F(2, 12) = 3362$	
	2-way ANOVA (Dunnett's)	RV RT	Interaction	4	$F(4, 9) = 24.25$	N=2
			Time	2	$F(2, 9) = 19.16$	
			PG level	2	$F(2, 9) = 117.0$	
4C	2-way ANOVA (Tukey's)	Plaque Area	Interaction	6	$F(6, 56) = 8.559$	N=8, n=6
			PG level	3	$F(3, 28) = 108.3$	
			Distance	2	$F(1.923, 53.85) = 71.08$	
4D	1-way ANOVA (Dunnett's)	Plaque Area	Treatment (between columns)	2	$F(2, 15) = 43.34$	N=8, n=6
			Residual (within columns)	15		
	1-way ANOVA (Dunnett's)	Plaque Count	Treatment (between columns)	2	$F(2, 45) = 157.3$	N=8, n=6
			Residual (within columns)	45		
4F	2-way ANOVA (Tukey's)	Plaque Area	Interaction	4	$F(4, 24) = 18.00$	N=5, n=6
			PG level	2	$F(2, 12) = 67.87$	
			Distance	2	$F(1.286, 15.43) = 47.09$	
4G	1-way ANOVA (Dunnett's)	IAV-Plastic	Treatment (between columns)	3	$F(3, 59) = 102.8$	N=4-6, n=3
			Residual (within columns)	59		
		IAV-Metal (SS)	Treatment (between columns)	3	$F(3, 44) = 16.92$	N=4-6, n=3
			Residual (within columns)	44		
		IAV-Metal (A)	Treatment (between columns)	3	$F(3, 49) = 18.82$	N=4-6, n=3
			Residual (within columns)	49		
		IAV-Glass	Treatment (between columns)	3	$F(3, 53) = 39.28$	N=4-6, n=3
			Residual (within columns)	53		
EV5B Colony Area	2-way ANOVA (Tukey's)	Plaque Area	Interaction	2	$F(2, 28) = 12.21$	N=8, n=6
			PG level	1	$F(1, 14) = 374.5$	
			Distance	2	$F(1.602, 22.43) = 21.82$	
EV5B ViralPlaque	2-way ANOVA (Tukey's)	Plaque Area	Interaction	2	$F(2, 28) = 16.41$	N=8, n=6
			PG level	1	$F(1, 14) = 188.0$	
			Distance	2	$F(1.530, 21.42) = 28.60$	
EV5C	2-way ANOVA (Dunnett's)	IAV	Interaction	6	$F(6, 7) = 1.045$	N=2
			PG level	7		
Appendix				Degree of Freedom	F (DFn, DFd)	Replicates
1	1-way ANOVA (Dunnett's)	MLV-A-	Treatment (between columns)	7	$F(7, 40) = 381.7$	N=2, n=3
		Pseudovirus	Residual (within columns)	40		

		VSV-G -	Treatment (between columns)	7	$F(7, 40) = 100.1$	N=2, n=3
		Pseudovirus	Residual (within columns)	40		
		Bald (no glycoproteins)	Treatment (between columns)	8	$F(8, 45) = 272.4$	N=2, n=3
		Pseudovirus	Residual (within columns)	45		
3A	2-way ANOVA (Tukey's)	Plaque Area	Interaction	6	$F(3, 28) = 118.1$	N=8, n=6
			PG level	3	$F(1.903, 53.28) = 67.24$	
			Distance	2	$F(28, 56) = 1.042$	
3B	1-way ANOVA (Dunnett's)	Plaque Area	Treatment (between columns)	2	$F(2, 15) = 43.34$	N=8, n=6
			Residual (within columns)	15		
3C	2-way ANOVA (Tukey's)	Plaque Area	Interaction	4	$F(2, 12) = 67.87$	N=5, n=6
			PG level	2	$F(1.286, 15.43) = 47.09$	
			Distance	2	$F(12, 24) = 0.7451$	

Appendix Table S3. Summary of multiple comparison statistical significance.

Figure				Significance	P value
1A/EV1A	IAV 37	5	Control vs. 10% PG	ns	0.967
			Control vs. 20% PG	ns	0.9998
			Control vs. 30% PG	ns	0.1714
			Control vs. 40% PG	***	0.0002
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		30	Control vs. 10% PG	ns	0.9986
			Control vs. 20% PG	ns	0.6133
			Control vs. 30% PG	*	0.0352
			Control vs. 40% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		120	Control vs. 10% PG	ns	0.5706
			Control vs. 20% PG	ns	0.2177
			Control vs. 30% PG	****	<0.0001
			Control vs. 40% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
1B/EV1B	IAV 32	5	Control vs. 10% PG	ns	>0.9999
			Control vs. 20% PG	ns	0.9459
			Control vs. 30% PG	ns	0.4041
			Control vs. 40% PG	ns	0.5468
			Control vs. 50% PG	*	0.0105
			Control vs. 60% PG	****	<0.0001
		30	Control vs. 10% PG	ns	>0.9999
			Control vs. 20% PG	ns	0.9939
			Control vs. 30% PG	ns	0.9642
			Control vs. 40% PG	ns	0.1487
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		120	Control vs. 10% PG	ns	0.9906
			Control vs. 20% PG	ns	0.5468
			Control vs. 30% PG	ns	0.6134
			Control vs. 40% PG	***	0.0007
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
1C/EV1C	IAV RT	5	Control vs. 10% PG	ns	0.9756
			Control vs. 20% PG	ns	>0.9999
			Control vs. 30% PG	ns	>0.9999

			Control vs. 40% PG	ns	0.9687
			Control vs. 50% PG	ns	0.6634
			Control vs. 60% PG	**	0.0011
		30	Control vs. 10% PG	ns	0.9993
			Control vs. 20% PG	ns	0.6322
			Control vs. 30% PG	ns	0.5351
			Control vs. 40% PG	*	0.0301
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		120	Control vs. 10% PG	ns	0.9993
			Control vs. 20% PG	ns	0.5926
			Control vs. 30% PG	ns	0.1075
			Control vs. 40% PG	**	0.0015
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
1D/EV1D	IAV 37	5	Control vs. 10% PG	ns	0.9985
			Control vs. 20% PG	ns	0.7564
			Control vs. 30% PG	ns	0.4897
			Control vs. 40% PG	*	0.0248
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		30	Control vs. 10% PG	ns	0.2969
			Control vs. 20% PG	ns	0.0575
			Control vs. 30% PG	***	0.0006
			Control vs. 40% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		120	Control vs. 10% PG	****	<0.0001
			Control vs. 20% PG	****	<0.0001
			Control vs. 30% PG	****	<0.0001
			Control vs. 40% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
1E/EV1E	IAV 32	5	Control vs. 10% PG	ns	>0.9999
			Control vs. 20% PG	ns	0.9995
			Control vs. 30% PG	ns	0.9902
			Control vs. 40% PG	ns	0.0897
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		30	Control vs. 10% PG	ns	>0.9999
			Control vs. 20% PG	ns	0.5781
			Control vs. 30% PG	ns	0.1051

			Control vs. 40% PG	***	0.0007
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		120	Control vs. 10% PG	*	0.0282
			Control vs. 20% PG	**	0.0039
			Control vs. 30% PG	****	<0.0001
			Control vs. 40% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
1F/EV1F	IAV RT	5	Control vs. 10% PG	ns	0.9809
			Control vs. 20% PG	ns	0.2232
			Control vs. 30% PG	*	0.0313
			Control vs. 40% PG	**	0.0037
			Control vs. 50% PG	***	0.0006
			Control vs. 60% PG	***	0.0003
		30	Control vs. 10% PG	ns	>0.9999
			Control vs. 20% PG	ns	0.233
			Control vs. 30% PG	*	0.013
			Control vs. 40% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
		120	Control vs. 10% PG	ns	0.339
			Control vs. 20% PG	ns	0.2639
			Control vs. 30% PG	**	0.0082
			Control vs. 40% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
			Control vs. 60% PG	****	<0.0001
1H	IAV mouse		Flu Only vs. PG + Flu	**	0.0056
2A/EV3A	SARS-CoV-2	1	Control vs. 25% PG	ns	0.6902
			Control vs. 50% PG	****	<0.0001
		30	Control vs. 25% PG	ns	0.6902
			Control vs. 50% PG	****	<0.0001
2B/EV3B	EBV	5	Control vs. 25% PG	ns	0.901
			Control vs. 50% PG	****	<0.0001
		15	Control vs. 25% PG	***	0.0001
			Control vs. 50% PG	****	<0.0001
		30	Control vs. 25% PG	****	<0.0001
			Control vs. 50% PG	****	<0.0001
2D	229E- coronavirus pseudovirus		0% PG vs. 10% PG	ns	>0.9999
			0% PG vs. 20% PG	*	0.0214
			0% PG vs. 30% PG	****	<0.0001
			0% PG vs. 40% PG	****	<0.0001

		0% PG vs. 50% PG	****	<0.0001
		0% PG vs. 60% PG	****	<0.0001
	NL63-coronavirus pseudovirus	0% PG vs. 10% PG	ns	>0.9999
		0% PG vs. 20% PG	ns	0.2424
		0% PG vs. 30% PG	****	<0.0001
		0% PG vs. 40% PG	****	<0.0001
		0% PG vs. 50% PG	****	<0.0001
		0% PG vs. 60% PG	****	<0.0001
	SAR1 coronavirus	0% PG vs. 10% PG	ns	0.0547
		0% PG vs. 20% PG	****	<0.0001
		0% PG vs. 30% PG	****	<0.0001
		0% PG vs. 40% PG	****	<0.0001
		0% PG vs. 50% PG	****	<0.0001
		0% PG vs. 60% PG	****	<0.0001
	MERS coronavirus	0% PG vs. 10% PG	ns	>0.9999
		0% PG vs. 20% PG	ns	0.065
		0% PG vs. 30% PG	****	<0.0001
		0% PG vs. 40% PG	****	<0.0001
		0% PG vs. 50% PG	****	<0.0001
		0% PG vs. 60% PG	****	<0.0001
	Ebola pseudovirus	0% PG vs. 10% PG	ns	0.5366
		0% PG vs. 20% PG	****	<0.0001
		0% PG vs. 30% PG	****	<0.0001
		0% PG vs. 40% PG	****	<0.0001
		0% PG vs. 50% PG	****	<0.0001
		0% PG vs. 60% PG	****	<0.0001
	SARS-CoV-2 Wuhan 1	0% PG vs. 10% PG	ns	>0.9999
		0% PG vs. 20% PG	**	0.0013
		0% PG vs. 30% PG	****	<0.0001
		0% PG vs. 40% PG	****	<0.0001
		0% PG vs. 50% PG	****	<0.0001
		0% PG vs. 60% PG	****	<0.0001
	SARS-CoV-2 D614G	0% PG vs. 10% PG	ns	0.8286
		0% PG vs. 20% PG	****	<0.0001
		0% PG vs. 30% PG	****	<0.0001
		0% PG vs. 40% PG	****	<0.0001
		0% PG vs. 50% PG	****	<0.0001
		0% PG vs. 60% PG	****	<0.0001
	SARS-CoV-2 Alpha	0% PG vs. 10% PG	ns	0.6474
		0% PG vs. 20% PG	****	<0.0001
		0% PG vs. 30% PG	****	<0.0001
		0% PG vs. 40% PG	****	<0.0001

			0% PG vs. 50% PG	****	<0.0001	
			0% PG vs. 60% PG	****	<0.0001	
	SARS-CoV-2 Delta		0% PG vs. 10% PG	ns	0.9991	
			0% PG vs. 20% PG	**	0.0031	
			0% PG vs. 30% PG	****	<0.0001	
			0% PG vs. 40% PG	****	<0.0001	
			0% PG vs. 50% PG	****	<0.0001	
			0% PG vs. 60% PG	****	<0.0001	
	SARS-CoV-2 Omicron		0% PG vs. 10% PG	ns	>0.9999	
			0% PG vs. 20% PG	*	0.0445	
			0% PG vs. 30% PG	****	<0.0001	
			0% PG vs. 40% PG	****	<0.0001	
			0% PG vs. 50% PG	****	<0.0001	
			0% PG vs. 60% PG	****	<0.0001	
3D/EV4B	RT 37	5	0% PG vs. 25% PG	ns	0.8242	
			0% PG vs. 50% PG	****	<0.0001	
		15	0% PG vs. 25% PG	***	0.0003	
			0% PG vs. 50% PG	****	<0.0001	
		30	0% PG vs. 25% PG	****	<0.0001	
			0% PG vs. 50% PG	****	<0.0001	
		60	0% PG vs. 25% PG	****	<0.0001	
			0% PG vs. 50% PG	****	<0.0001	
	RV RT	30	0% PG vs. 25% PG	ns	0.9851	
			0% PG vs. 50% PG	**	0.0067	
		60	0% PG vs. 25% PG	ns	0.9882	
			0% PG vs. 50% PG	**	0.0045	
		120	0% PG vs. 25% PG	ns	0.2909	
			0% PG vs. 50% PG	****	<0.0001	
4C			Plate 1	0 vs. 2.93 PG mg/L air	***	0.0004
				0 vs. 6.46 PG mg/L air	****	<0.0001
			0 vs. 10.593 PG mg/L air	***	0.0001	
		Plate 2	0 vs. 2.93 PG mg/L air	***	0.0007	
			0 vs. 6.46 PG mg/L air	****	<0.0001	
			0 vs. 10.593 PG mg/L air	****	<0.0001	
		Plate 3	0 vs. 2.93 PG mg/L air	*	0.0131	
			0 vs. 6.46 PG mg/L air	*	0.0131	
			0 vs. 10.593 PG mg/L air	*	0.0131	
4D	Plaque area	Plate 1	0 vs. 1.541 PG mg/L air	****	<0.0001	
			0 vs. 2.93 PG mg/L air	****	<0.0001	
	Plaque count	Plate 1	0 vs. 1.541 PG mg/L air	****	<0.0001	
			0 vs. 2.93 PG mg/L air	****	<0.0001	
4F		Plate 1	0 vs. 2.93 PG mg/L air	ns	0.4524	

			0 vs. 10.593 PG mg/L air	****	<0.0001
		Plate 2	0 vs. 2.93 PG mg/L air	ns	0.1804
			0 vs. 10.593 PG mg/L air	**	0.0051
		Plate 3	0 vs. 2.93 PG mg/L air	****	<0.0001
			0 vs. 10.593 PG mg/L air	*	0.0183
4G		Plastic	Control vs. 10	***	0.0002
			Control vs. 20	****	<0.0001
			Control vs. 30	****	<0.0001
		Stainless steel	Control vs. 10	****	<0.0001
			Control vs. 20	****	<0.0001
			Control vs. 30	****	<0.0001
		Glass	Control vs. 10	****	<0.0001
			Control vs. 20	****	<0.0001
			Control vs. 30	****	<0.0001
		Aluminium	Control vs. 10	***	0.0007
			Control vs. 20	****	<0.0001
			Control vs. 30	****	<0.0001
EV5B	ColonyArea	Plate 1	0% vs 40%	****	<0.0001
		Plate 2	0% vs 40%	****	<0.0001
		Plate 3	0% vs 40%	**	0.003
	ViralPlaque	Plate 1	0% vs 40%	****	<0.0001
		Plate 2	0% vs 40%	****	<0.0001
		Plate 3	0% vs 40%	*	0.0338
EV5C	IAV		0% PG vs. 10% PG	ns	0.3435
			0% PG vs. 20% PG	ns	0.4395
			0% PG vs. 30% PG	ns	0.5515
			0% PG vs. 40% PG	ns	0.3435
			0% PG vs. 50% PG	ns	0.2029
			0% PG vs. 60% PG	ns	0.5515
Appendix 1	MLV-A pseudovirus		0% PG vs. 10% PG	****	<0.0001
			0% PG vs. 20% PG	****	<0.0001
			0% PG vs. 30% PG	****	<0.0001
			0% PG vs. 40% PG	****	<0.0001
			0% PG vs. 50% PG	****	<0.0001
			0% PG vs. 60% PG	****	<0.0001
	VSV-G pseudovirus		0% PG vs. 10% PG	ns	0.0559
			0% PG vs. 20% PG	****	<0.0001
			0% PG vs. 30% PG	****	<0.0001
			0% PG vs. 40% PG	****	<0.0001
			0% PG vs. 50% PG	****	<0.0001
			0% PG vs. 60% PG	****	<0.0001
	Bald' pseudovirus control		0% PG vs. 10% PG	ns	>0.9999

			0% PG vs. 20% PG	ns	>0.9999
			0% PG vs. 30% PG	ns	>0.9999
			0% PG vs. 40% PG	ns	>0.9999
			0% PG vs. 50% PG	ns	>0.9999
			0% PG vs. 60% PG	ns	>0.9999
Appendix 3A		Plate 1	0 vs. 2.93 PG mg/L air	***	0.0003
			0 vs. 6.46 PG mg/L air	***	0.0001
			0 vs. 10.593 PG mg/L air	****	<0.0001
		Plate 2	0 vs. 2.93 PG mg/L air	***	0.0008
			0 vs. 6.46 PG mg/L air	****	<0.0001
			0 vs. 10.593 PG mg/L air	****	<0.0001
		Plate 3	0 vs. 2.93 PG mg/L air	*	0.0134
			0 vs. 6.46 PG mg/L air	*	0.0134
			0 vs. 10.593 PG mg/L air	*	0.0134
Appendix 3B	Plaque area	Plate 1	0 vs. 1.541 PG mg/L air	****	<0.0001
			0 vs. 2.93 PG mg/L air	****	<0.0001
Appendix 3C		Plate 1	0 vs. 2.93 PG mg/L air	ns	0.4524
			0 vs. 10.593 PG mg/L air	****	<0.0001
		Plate 2	0 vs. 2.93 PG mg/L air	ns	0.1804
			0 vs. 10.593 PG mg/L air	**	0.0051
		Plate 3	0 vs. 2.93 PG mg/L air	****	<0.0001
			0 vs. 10.593 PG mg/L air	*	0.0183