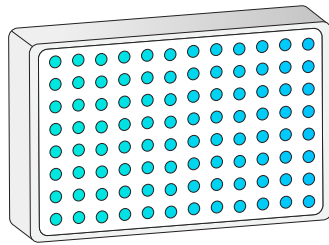
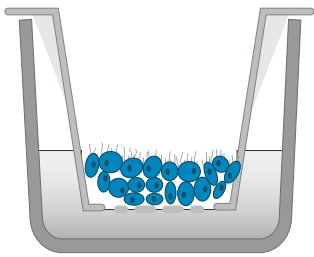


# A High-Throughput Human Tissue Model for Respiratory Virus Programs

## ANTIVIRAL EVALUATION WITHOUT COMPROMISE

An important step in the advancement of compounds within an antiviral program for respiratory viruses is their assessment in a translational human airway model. These models suffer from low throughput and a high cost per compound. Southern Research recognizes these challenges and offers a solution.

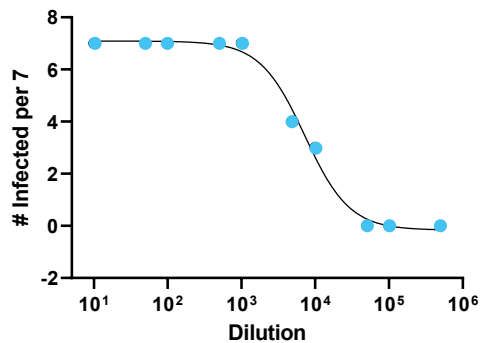


- 96-well 3D human mucociliary tissue model
- Evaluate compounds for Influenza, RSV, HMPV, and Coronavirus (including BSL-3 strains such as SARS-CoV-2)
- Characterize more compounds in a cost-effective manner

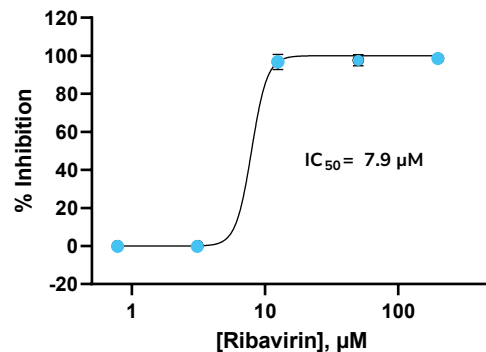
Air-Liquid Interface

	NEAT	10	50	100	500	1,000	5,000	10,000	50,000	100,000	500,000	CELLS
	1	2	3	4	5	6	7	8	9	10	11	12
A	513	428	318	251	800	547	943	902	127472	123353	130836	98224
B	1602	789	119	500	736	822	124811	126389	125266	126188	122494	129065
C	412	1633	439	337	764	810	402	3217	128155	124768	122121	129928
D	912	1088	1209	371	594	755	867	116773	117407	116363	119503	125097
E	543	792	783	989	944	1420	117984	118710	114897	119880	129647	132500
F	714	467	390	880	1301	1408	116447	117536	116769	125270	119107	128556
G	1918	694	580	657	1000	792	930	1954	116412	115413	123231	128484
H	119886	120310	123892	125550	123317	121668	119990	123194	118138	120049	123340	129067

Heat map of H3N2 A/Udorn/72 Titer Data in 96-well HAE plate. Column 1: Neat virus (MOI = 12). Columns 2 – 11: 1:10 to 1:500,000 virus dilution. Column 12: Cell Control. Row H: 1  $\mu$ M VX-787 with corresponding virus dilution.



Plot of the number of virus-positive wells out of 7 wells tested versus dilution for TCID50 determination.



Human Airway Epithelial (HAE) cells in a 96-well format were infected with H3N2 A/Udorn/72. Two days post-infection, harvested supernatant was tested for infectious virus by cytopathic effect in MDCK cells.