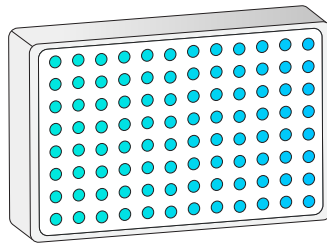
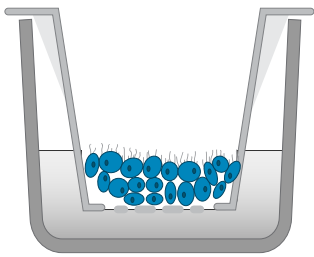


A High-Throughput Human Tissue Model for Respiratory Virus Programs

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.

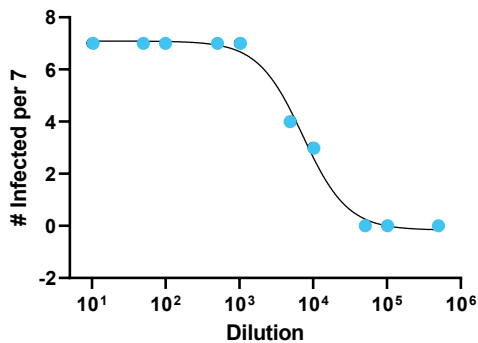


- 96-well 3D human mucociliary tissue model
- Evaluate compounds for Influenza, RSV, HMPV, and Coronavirus (including BSL-3 strains such as SARS-CoV-2)
- Characterize more compounds in a cost-effective manner

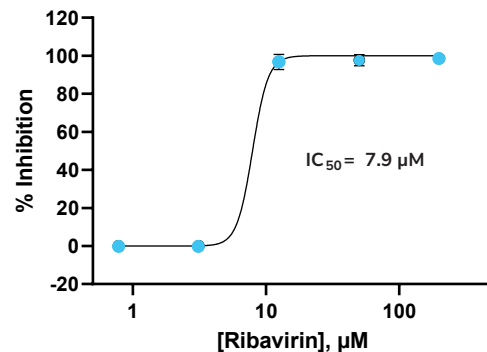
Air-Liquid Interface

	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 μ 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.