Table referenced as "Psittacosis viruses"

Contributors

Pelc, Stephen Richard

Publication/Creation

October 1960

Persistent URL

https://wellcomecollection.org/works/erumu5dd

TABLE I. ESTIMATION OF PERIODS IN THE GENERATION TIME OF HeLa CELLS IN LOG-PHASE GROWTH BY CELL COUNTS AND LABELING WITH TRITIATED THYMIDINE

TYPE OF EXPERIMENT	COMPONENT OF CYCLE MEASURED	TIME LIMITS (HOURS)	% OF CYCLE	SUM OF MEAN %	SUM OF MEAN TIMES (HOURS)
COUNTING OF CELLS	DOUBLING TIME OF POPULATION*	26.0	100.0		
PULSE H^3T, LABELED MITOSES APPEAR:	MINIMUM G_2	3.0	11.5		
REACH 100%:	MAXIMUM G_2	12.0	46.0		
	MEAN G_2	7.5	29.0	29	7.5
PULSE H^3T, LABELED NUCLEI	CELLS IN DNA SYNTHESIS(S) X 25% AT ANY TIME	26.0 X 25% = 6.5	25.0	25	6.5
CALCULATION OF DIFFERENCE	$DT-(S+G_2)$: MAX. = G_1 : MIN. MEAN G_1 : MEAN	$26-(6.5+3)=16.5$ $26-(6.5+12)=7.5$ $26-(6.5+7.5)=12.0$	63.5 29.0 46.0	$\frac{46}{100}$	$\frac{12.0}{26.0}$

* This value is taken as equal to the generation time (GT) on the assumption that all cells are participating in log-phase growth.

TABLE II. ESTIMATION OF STAGES IN THE GENERATION TIME OF HeLa CELLS IN LOG-PHASE GROWTH, WITH OR WITHOUT INFECTION BY ORNITHOSIS VIRUS

	CONTROL CELL SERIES		INFECTED CELL SERIES				
			EARLY		LATE		MEAN
	HRS.	PERCENT	HRS.	PERCENT	HRS.	PERCENT	HOURS
% LABELED AT ZERO HOUR		28.5		31.5		21.5	
% LABELED AT 18 HOURS		97.0		67.5		60.0	
% CHANGE IN 18 HOURS		68.5		36.0		38.5	
% CHANGE PER HOUR		3.8		2.0		2.1	
GENERATION TIME (GT) BASED ON % CHANGE PER HOUR	26.3		50.0		46.8		48.4
DNA SYNTHESIS(S) FROM % LABELED AT ZERO HOUR	7.5	28.5	15.7	31.5	10.0	21.5	12.9