

TABLE III
Duration of DNA Synthesis Phase (from Literature)*
and Calculated Cell Generation Time in
Mammalian Cells

Cell system	Reference	Calculated Mean DNA synthetic time <i>hrs.</i>	Calculated cell gener- ation time† <i>hrs.</i>
<i>In vitro:</i>			
L-strain cells	(35)	6-7	20
HeLa S3 cells	(26)	6	25
Hamster cells	(36)	6	14
Ascites tumor cells	(8)	7.5	18
Liver cells	(18)	8	31
L-5178Y ascites cells	(6)	6.9-7.4	—
HeLa cells	(26)	8.5	28
<i>In vivo:</i>			
Human bone marrow	(5)	6.5	—
Canine myelocyte series	(27)	ca. 5	16-18
Canine myelo- blasts	(27)	ca. 5	9
Mouse ileum	(30)	7.5	18-19
Mouse hair follicle	(3)	7.5	12
Mouse breast cancer	(23)	10	24-72
Mouse tongue	(37)	8.5	96
Rat hepatocytes	(22)	8	—
Rat chondrocytes	(16)	8.5	—
Rat bone cells:	(38)		
Metaphysis		8	36
Endosteum		8	57
Periosteum		8	114
BNL tumor	(15)	8	16

* This listing should be considered representative rather than comprehensive. Recently, the frequency of reports regarding DNA synthesis time has greatly increased. For the most part, however, there is agreement that the duration of DNA synthesis is from 6 to 8 hours.

† Based on estimate of "synthetic index" provided