Table 18.3. Kinetic parameters in the crypts of the small intestine of experimental animals

Reference	I_S (%)	I_M (%)	k_B (cells/1000 cells/h)	CCPR[2] (cells/crypt/h)	I_P	T_C (h)	t_S (h)	t_{G1} (h)	t_{G2} (h)	t_M (h)	T (h)	T_T[3] crypt (h)	t_{mat}[4] (h)	Migration rate (cell positions/h)
Mouse														
Quastler and Sherman (1959)						18.7[1]	7.5	9.5[1]	1.5	0.5			4	
Fry et al. (1961, 1963); Lesher et al. (1961)					0.5[5]	11.2	6.5	2.7	2.0	1.1–1.3				
Thrasher and Greulich (1965a,b) (young adult)	41	6			0.70[5] 0.72[5] 0.66[6]	13	7.4		0.75–2.0		18[7]			
Schultze et al. (1972)	55	4	70		0.72[5]	14	7.4[10] 8.0	4.5	1.0	0.5				
Kovacs and Potten (1973)	28.1				0.54[6]	16[1]								
Cheng and Leblond (1974a)	9										3.3d[8]			1.0[14]–1.5
Cooper et al. (1974)	56.6[9]					13.4[2] 13.3	7.6							
Al-Dewachi et al. (1975b, 1979)	37	7.3	52.1	16.4[11] 14.5 13.8 21.4	0.61[5] 0.65[6]	12.4(21)[13] 12.3(30)	7.6 6.7	3.7 3.9	1.15 1.1	0.86	24.8[7]		1.1[15]	1.85
Lehnert (1979)	41 ± 0.012				0.69[5]	11.8[12]								
Schultze et al. (1979)						12.7 13.3 (15)[13]	7.5 7.8	3.7	1.3		44[7]			
Rat														
Leblond and Stevens (1948)			33.8							1.05	29[7]			
Cairnie et al. (1965a)	35	4			0.57[5] 0.58[6]	10.6 (23)[13]	6.4	2.8	1.34	0.7				1.27
Tannock (1967)						11 ± 1[12]								1.45
Tutton (1973a)		3.3				17				0.8				
Al-Dewachi et al. (1974)	36	3.5	69	32[11]	0.62[5]	11.3(21)[13]								
Wright et al. (1975)				32.4 35.6 39.9	0.60[6]	10.5[12]	6.5	3.5	1.3	0.43	34.1		6.6	1.43 1.78

[1] Stage-duration calculation. [2] Crypt cell production rate. [3] Crypt transit time. [4] Transit time for maturation compartment. [5] Calculated from the FLM curve. [6] Measured from the labelling index distribution curve. [7] Crypt only. [8] Total (i.e. villus epithelium also). [9] Proliferating cells only. [10] From double-labelling measurements. [11] From microdissection and metaphase arrest, $I_M/t_M.N_P$, $I_P/T_C.N_C$ and the migration rate multiplied by the column count respectively. [12] Metaphase arrest. [13] Coefficient of variation. [14] Proportional to site. [15] For a completely non-proliferative cell.