TABLE I

Summary of Nuclear Parameters for Species with Different DNA Content

Species	Tissue	Culture Condition*	DNA Content	Surface	Vol.	Pores/ μm^2 ± SD	Pores/nucleus	Pores/ μm^3	Surface/DNA	Vol/DNA	Pores/DNA	Surface/Vol	Cells in S phase
			10^{-12} g	μm^2	μm^3				$\mu m^2/10^{-12}$ g	$\mu m^3/10^{-12}$ g	pores/10^{-12} g	$\mu m^2/\mu m^3$	%
Notophthalmus viridescens	lens	M	95.6‡	2,540	4,174	6.45 ± 1.4	16,383	3.9	26.7	43.7	171	0.61	20
Triturus cristatus	heart	M	59.6‡	1,672	1,748	7.61 ± 1.4	12,724	7.3	28.1	29.3	213	0.96	63
Rana pipiens	embryo	M	14.34§	625	627	7.90 ± 1.2	4,938	7.9	43.6	43.7	344	1.00	44
Xenopus laevis (A6)	kidney	M	7.68	340	294	10.05 ± 1.5	3,417	11.6	44.3	38.3	445	1.16	31
Xenopus laevis	heart	M	7.68	365	307	9.50 ± 2.1	3,468	11.3	47.5	40.0	452	1.19	38
Scaphiopus holbrooki	heart	M	3.78	271	197	9.45 ± 2.0	2,561	13.0	71.7	52.1	678	1.38	32
Peromyscus crinitus	lung	M	6.30	267	153	11.67 ± 1.8	3,116	20.4	42.4	24.3	495	1.75	39
Mouse L		S	13.80	467	435	10.83 ± 2.8	5,058	11.6	33.8	31.5	366	1.07	35
Human lymphocytes		S	6.24‖	254	232	8.41	2,136	9.2	40.7	37.2	342	1.09	–
Human WI38	lung	M	6.24	328	170	8.50 ± 1.3	2,788	16.4	52.7	27.2	447	1.93	44
Human HeLa	cervix	S	10.68	350	374	11.24 ± 1.8	3,934	10.5	32.8	35.0	368	0.94	41
African Green monkey (CVI)	kidney	M	13.96	498	421	8.59 ± 1.8	4,278	10.2	35.7	30.2	306	1.18	39
Chinese hamster (CHO)	ovary	S	6.00¶	221	188	9.44 ± 2.1	2,086	11.1	36.8	31.3	348	1.18	32
Chicken	embryo	M	2.68	308	210	9.29 ± 1.6	2,861	13.6	114.9	78.4	1,068	1.47	40
Tetrahymena pyriformis (GL)**		S	15.70‡‡	370	678	39 ± 9	14,430	21.3	23.6	43.2	919	0.55	–
Drosophila melanogaster (S2)	imaginal disc	M	0.30§§	90	78	12.62 ± 2.2	1,136	14.6	300.0	260.0	3,787	1.15	32
Saccharomyces cerevisiae		S	0.017‖‖	10.75	3.3	11.03 ± 3.1	119	35.8	632.4	195.3	7,000	3.24	–

* S = cells grown in suspension (spherical cells). M = cells grown in Falcon plastic flasks (monolayers; flat cells).

‡ The DNA data on *Notophthalamus viridescens* and *Triturus cristatus* were obtained cytophotometrically.

§ The value for *Rana pipiens* is an average of 10 FMF determinations.

‖ The value for human lymphocyte was set equal to that of the human WI38 cells.

¶ The FMF value for CHO cells was used as a standard for comparing all other data. CHO cells were assumed to have 6.0×10^{-12} g of DNA as determined by Kraemer et al. (21).

** Data from Wunderlich (36).

‡‡ DNA value for *Tetrahymena* was obtained from Scherbaum et al. (30).

§§ The *Drosophila* DNA values are about 25% higher than the diploid DNA content of 0.24×10^{-12} g (2).

‖‖ *S. cerevisiae* DNA content from Bicknell and Douglas (1).